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ASPIC

Advanced Stroke and Peripheral Interventions Course

2022



21-23
February
Perissia Hotel &
Convention Center
CAPPADOCIA
TURKEY

ABSTRACT BOOK

08:00 - 08:30

REGISTRATION

08:30 - 10:00

Subclavian, Vertebral, Renal and Visceral Interventions

Moderators: Ömer Göktekin, Bashir Hanif

Panelists: Şakir Arslan, Ahmet Karabulut, Mohammad Ghorbani, Okan Er, Sadık Duran, Fehmi Kaçmaz, Selami Demirelli

Live Case 1: Subclavian CTO

Operators: Yılmaz Güneş, Şaban Keleşoğlu

Live Case 2: Mesenteric / Renal / Vertebral Obstruction

Operators: Necati Dağlı, Mustafa Yılmaztepe

Topic 1: Endovascular Treatment Upper Limb Occlusion - Şevket Görgülü

Topic 2: Visceral Interventions - Aydın Yıldırım



10:00 - 10:20

COFFEE BREAK

10:20 - 10:40

Panel 1: Current Anticoagulants in Treatment of Cardiovascular Diseases

Moderators: Adnan Abacı, Hakan Uçar

Speaker: Oğuz Yavuzgil

Panelists: Ahmet Karabulut, Boshir Hanif, Uzeyir Rahimov, Yüksel Ağca, Mahmut Uluganyan

10:40 - 12:30

Aortic Endovascular Interventions

Moderators: Uğursay Kızıltepe, Şevket Görgülü

Panelists: Ömer Göktekin, Nadeem Rizvi, Hakan Uçar, Birol Yamak, Ertan Vuruşkan, Mustafa Kürşat Tigen

Live Case 3: Iliac Aneurysm

Operators: Ivo Petrov, Ulaş Bildirici

Live Case 4: Aortic Coarctation

Operators: Nazmi Narin, Osman Başpınar

Topic 3: Endovascular Treatment of Aortic Dissection (Treatment Options; Medical Versus intervention) - Firuzan Numan

Topic 4: Hybrid Approach in TEVAR - Uğursay Kızıltepe

Topic 5: Step by Step Aortic Coarctation - Ömer Göktekin



12:30 - 13:30

LUNCH

13:30 - 13:50

Complex EVAR Interventions

Moderators: *Firuzan Numan, Sigrid Nicole*

Panelists: *Uğursay Kızıltepe, Salih Kılıç, Erhan Saraçoğlu, Ahmet Karabulut, Selçuk Pala, Bülent Behlül Altunkeser, Elton Soydan*

Live Case 5: EVAR

Operators: *Aydın Yıldırım, Ramazan Kargın*

Live Case 6: EVAR

Operators: *Mehmet Altuğ Tuncer, Alper Özkan*

Topic 6: How to Manage Endoleak in EVAR - Sigrid Nicole



15:00 - 15:20

COFFEE BREAK 

15:20 - 15:40

Panel 2: New Devices in Treatment of PAD Interventions

Moderators: *Ahmet Taştan, Mustafa Akın*

Speaker: *Batuhan Tamcı*

15:40 - 17:30

Lower Extremity Intervention

Moderators: *Ömer Göktekin, Jocelyn Brooks*

Panelists: *Ivo Petrov, Waled Hassan, Burak Teymen, Qazi Tufai, Samet Uyar, Umuttan Doğan, Sadık Açikel*

Live Case 7: Femoro - Popliteal CTO

Operators: *Ertan Vuruşkan, Salih Kılıç*

Live Case 8: Aortoiliac / SFA

Operators: *Bülent Behlül Altunkeser, Nazif Aygül*

Topic 7: How Could You Prevent Restenosis For Infrainguinal Interventions
Jocelyn Brooks

Topic8: Safety of DCBs in 2020: Current literature - Uzeyir Rahimov



17:30 - 18:30

Challenging Case Presentations

Moderators: *Mustafa Kürşat Tigen, Uzeyir Rahimov*

Panelists: *Murat Sünbül, Ayhan Erkol, Burak Turan, Veyset Düzen, İsa Sincer, Uğur Arslantaş, Eftal Bakırcı, Hüsnü Değirmenci*

(CP-01, CP-02, CP-03, CP-04, CP-05, CP-06)



09:00 - 10:00



Learning Session: Step By Step Carotid Stenting
Facilitators: Sasko Kadev, Şevket Görgülü

10:00 - 10:20

COFFEE BREAK 

10:30 - 11:30



Learning Session: Step By Step Aortoiliac Intervention
Facilitators: Mustafa Kürşat Tigen, Yılmaz Güneş

11:30 - 13:30

LUNCH 

13:30 - 15:00



Venous and USG Course
Jocelyn Brooks, Burçak Gümü
How to use USG for PAD interventions Technique in Venous

15:00 - 15:15

COFFEE BREAK 

15:15 - 16:15



Learning Session: Step By Step BTK Interventions
Facilitators: Ömer Şenaslan, Göksel Dağışan

16:30 - 17:30



Treatment of Pulmonary Hypertension
Moderators:
Speaker 1: Medical Treatment Çağlar - Emre Çağlıyan
Speaker 2: Endovascular Approach - Doğu Kılıç



08:30 - 09:30



Challenging Cases Session: Supra Aortic Interventions 1

Moderators: Feyzullah Beşli, Sadık Açikel

Panelists: Yüksel Ağca, Ünal Öztürk, Fatih Güngören, Onur Kadir Uysal, Eftal Bakırcı
(CP-07, CP-08, CP-09, CP-10, CP-11, CP-12)

09:30 - 10:00

COFFEE BREAK

10:00 - 11:00



Challenging Cases Session: Supra Aortic Interventions 2

Moderators: Fehmi Kaçmaz, Hakan Uçar

Panelists: Yakup Çetinkaya, Ahmet Kasapkara, Mustafa Çelik, Bekir Calapkorur
(CP-13, CP-14, CP-15, CP-16, CP-17)

11:00 - 11:30

COFFEE BREAK

11:30 - 12:30



Challenging Cases Session: Aortoiliac Interventions - Femoropopliteal Interventions 1

Moderators: Mustafa Duran, Davran Çiçek

Panelists: Çağrı Yayla, Mustafa Çelik, Fatih Öztürk, Mehmet Küçükosmanlı, Serkan Akdağ
(CP-18, CP-19, CP-20, CP-21, CP-22)

12:30 - 13:30

LUNCH

13:30 - 14:30



Challenging Cases Session: Aortoiliac Interventions - Femoropopliteal Interventions 2

Moderators: Necati Dağlı, Sadık Duran

Panelists: Mustafa Ahmet Huyut, Okay Abacı, Mustafa Doğduş, Hikmet Hamur, Murat Çetin
(CP-23, CP-24, CP-25, CP-26, CP-27, CP-28)

14:30 - 15:00

COFFEE BREAK

15:00 - 16:00



Challenging Cases Session: Aortoiliac Interventions - Femoropopliteal Interventions 3

Moderators: Selçuk Pala, Telat Keleş

Panelists: Koray Demirtaş, Emre Çağlıyan, Altuğ Çinçin, Veysel Düzen, Mustafa Topuz, Zeki Çetinkaya
(CP-29, CP-30, CP-31, CP-32)

16:00 - 16:30

COFFEE BREAK

16:30 - 17:30



Challenging Cases Session: Femoropopliteal - BTK Interventions

Moderators: Nazif Aygül, Ramazan Topsakal

Panelists: Fatih Güngören, Taner Şeker, Bekir Calapkorur, Alparslan Kurtul, Arafat Yıldırım, Şükrü Ünal
(CP-33, CP-34, CP-35, CP-36, CP-37)

08:30 - 10:00

Carotid Artery Stenting

Moderators: Ömer Göktekin, Şakir Arslan

Panellsts: Sasko Kedev, Özcan Özdemir, Mohammad Ghorbani, Murat Akçay, Emre Çağlıyan

Live Case 9: Carotid Stenting With Proximal Embolic Protection
Operators: Engin Bozkurt, Telat Keleş

Live Case 10: Carotid Stenting With Distal Embolic Protection
Operators: Şevket Görgülü, Feyzullah Beşli

Topic 10: Carotid Intervention Via Radial / Ulnar Approach
Sasko Kedev



10:00 - 10:20

COFFEE BREAK ☕

10:20 - 10:40

Panel 3: Current State and Novel Approches of Antiplatelet Therapy

Moderators: Oğuz Yavuzgil, Teoman Kılıç

Speaker: Alper Özkan

10:40 - 12:30

Management of Aorto - Iliac Occlusions

Moderators: Ivo Petrov, Ömer Göktekin

Panellsts: Bashır Hanif, Uğursay Kızıltepe, Jocelyn Brooks, Altuğ Çınçin, Waled M. Hassan, Ertan Vuruşkan, Ulaş Bildirici

Live Case 11: Leriche Syndrome
Operators: Nihat Kalay, Şevket Görgülü

Live Case 12: Iliac CTO
Operators: Mehmet Vefik Yazıcıoğlu, Elnur Alizade

Topic 11: Step By Step treatment of Aorto - Iliac Occlusions
Ivo Petrov

Topic 12: Device Selection in Aorto - Iliac Interventions
Waled M. Hassan



12:30 - 13:30

LUNCH 🍽️

13:30 - 15:15

Endovascular Solutions For Femoro - Popliteal Occlusions

Moderators: *Ulaş Bildirici, Jocelyn Brooks*

Panelists: *Mustafa Akın, Batuhan Tamcı, Yunus Emre Gürel, Waled M. Hassan, Qazi Tufal, Elton Soydan*



Live Case 13: SFA Occlusion (Shockwave)

Operators: *Ömer Göktekin, Hakkı Şimşek*



Live Case 14: SFA Popliteal CTO

Operators: *Ali Baran Budak, Oğuz Akkuş*



Topic 13: Surgical Treatment and Challenges For Restenotic Fem - Pop Lesions - *Doğan Kahraman*

15:15 - 15:30

COFFEE BREAK

15:30 - 17:30

Below The Knee Revascularization

Moderators: *Sigrid Nicole, Ertan Vuruşkan*

Panelists: *Burçak Gümüş, Mustafa Ahmet Huyut, Koray Demirtaş, Ömer Şenarşlan, Ahmet Anıl Şahin, Şevket Görgülü*



Live Case 15: BTK CTO Crosser

Operators: *Ali Baran Budak, Göksel Dağaşan*



Live Case 16: BTK / CLI Treatment

Operators: *Selçuk Pala, Burak Akcay*

Topic 14: Stem Cell Therapy For Angiogenesis in CLI
Sigrid Nicole

17:30- 18:10



Innovation Session

Moderators: *Hakan Güllü, Ayhan Olcay*

Panelists: *Ertan Vuruşkan, Ömer Göktekin, Nihat Kalay, Umuttan Doğan, Hasan Arı*

17:30 - 17:35

Catheter Advanced Balloon
Hakan Güllü

17:37 - 17:42

Mobile Phone Applications in Medicine: ECG Reader
Muhammet Bilgi

17:44 - 17:49

A New Pulmonary Embolectomy Catheter
İbrahim Faruk Aktürk

17:51 - 18:00

What You Want to Know About Patent
Guldenur Öztemur

18:02 - 18:07

An Artificial Intelligence Algorithm Detecting Pathologic Heart Sounds
Özge Turgay Yıdırım

18:09 - 18:14

A Dev Device Making Easier to Take to Many Pils
Sinem Yetim

18:16 - 18:21

A Different Snare System
Hasan Arı



ACUTE STROKE INTERVENTION COURSE

Basics of Acute Stroke and Clinical Update

Moderators: Vedat Ali Yürekli, Mustafa Gökçe

Panelists: Özcan Özdemir, Erdem Gürkaş, Semih Giray, Ömer Göktekin, Şakir Arslan

08:30 - 08:45

Cerebral Angiography Assessment During Acute Stroke Intervention
Yusuf İnanç

08:45 - 09:00

**Thrombectomy For Stroke in Early Time Window (First 6 Hour):
Case Selection With CT and CTA**
Aysel Milanlıoğlu

09:00 - 09:15

**Thrombectomy in The Patients Presented At 6 To 24 Hours or
With Wake - Up Stroke: Selection By Multimodal MRI Strategies**
Muhammed Nur Ögün

09:15 - 09:30

Case Selection For Thrombectomy After Six Hours and Wake Up Strokes
Özlem Aykaç

09:30 - 10:00

Panel Discussion:
Özcan Özdemir, Erdem Gürkaş, Semih Giray, Ömer Göktekin, Şakir Arslan

10:00 - 10:20

COFFEE BREAK ☕



Acute Ischemic Stroke: Guidelines, Algorithms and Vascular Access

Moderators: Semih Giray, Özcan Özdemir

Panelists: Vedat Ali Yürekli, Semih Giray, Özcan Özdemir, Ömer Göktekin, Şakir Arslan

10:30 - 10:45

Prehospital and Emergency Assessment in Acute Stroke
Engin Özakin

10:45 - 11:00

Tips and Tricks in ADAPT Technique
Serhan Yıldırım

11:00 - 11:15

Combined Aspiration and Stent-Retriever Technique - Tips and Tricks
Emrah Aytaç

11:15 - 11:30

**Aspiration vs Stent - Retriever Technique in Acute Basilar Artery
Occlusion**
Erdem Gürkaş

11:15 - 11:30

Aspiration vs Stent - Retriever Technique in Acute Basilar Artery Occlusion

Erdem Gürkaş

11:30 - 11:45

How To Deal With Peripheral Artery Complications During or After Femoral Puncture?

Nihat Kalay

11:45 - 12:00

Radial Access in Coronary and Carotid Interventions

Sasko Kedeş

12:00 - 12:30

Panel Discussion:

Vedat Ali Yürekli, Semih Giray, Özcan Özdemir, Ömer Göktekin, Şakir Arslan

12:30 - 13:30

LUNCH

13:30 - 15:00

Acute Stroke Intervention - I

Moderators: *Zülfikar Arlier, Mustafa Gökçe*

Panelists: *Erdem Gürkaş, Semih Giray, Özcan Özdemir, Ömer Göktekin, Şakir Arslan*



13:30 - 13:45

Tips and Tricks in Isolated Stent Retriever Technique

Utku Cenikli

13:45 - 14:00

What Should We Do in Large-Vessel Occlusion Ischemic Strokes Presenting with Low NIHSS?

Recep Baydemir

14:00 - 14:15

Vessel Perforation During Stent Retriever Thrombectomy For Acute Ischemic Stroke

Demet Funda Baş

14:15 - 14:30

How Could We Manage Collateral Embolization During Thrombectomy?

Elif Gencer

14:30 - 14:45

What Should We Do in Tandem Carotid Artery Occlusion Due to Atherosclerotic Disease? Case Presentation

Kürşat Akpınar

14:45 - 15:00

Panel Discussion:

Erdem Gürkaş, Semih Giray, Özcan Özdemir, Ömer Göktekin, Şakir Arslan

15:00 - 15:30

COFFEE BREAK



Acute Stroke Intervention - II

Moderators: Yusuf İnanç, Kürşat Akpınar

Panelists: Özcan Özdemir, Erdem Gürkaş, Semih Giray, Demet Funda Baş, Emrah Aytaç

15:30 - 15:45

Endovascular Treatment of Cerebral Venous Thrombosis

Zülfikar Arlier

15:45 - 16:00

Perioperative Anesthesia Strategies During Acute Stroke Intervention

Ahmet Şair

16:00 - 16:15

New Horizons in PFO Closure

Sadık Açikel

16:15 - 16:30

New Horizons in Left Atrial Appendage Closure

Dr. Ömer Göktekin

16:30 - 16:45

When do We Consider Atrial Fibrillation and Flutter Ablation?

Yasin Çakıllı

16:45 - 17:00

Panel Discussion:

Özcan Özdemir, Erdem Gürkaş, Semih Giray, Demet Funda Baş, Emrah Aytaç

ASPIC 2020



22 February, Saturday

HALL C



ZELVE

08:30 - 09:30



Oral Presentations: Peripheral Interventions 1

Moderators: Ömer Çelik, Ramazan Kargın

(OP-01, OP-02, OP-03, OP-04, OP-05, OP-06)

11:00 - 13:30

LUNCH | ● |

13:30 - 14:30



Oral Presentations: Peripheral Interventions 2

Moderators: Mustafa Tuncer, Korhan Soylu

(OP-07, OP-08, OP-09, OP-10, OP-11)

14:30 - 15:00

COFFEE BREAK

15:00 - 16:30



Oral Presentations: Cardiovascular Interventions

Moderators: Namık Kemal Eryol, Abdurrahman Oğuzhan

(OP-12, OP-13, OP-14, OP-15, OP-16, OP-17, OP-18, OP-19, OP-20)



08:30 - 10:30

Endovascular Treatment of Venous Diseases

Moderators: *Sinan Dağdelen, Burçak Gümüş*

Panelists: *Mehmet Mustafa Can, Mehmet Altuğ Tuncer, Şevket Görgülü, Shkelqim Hoxha*



Live Case 17: Deep Venous Thrombosis / Varicose Veins **INVA MED**
Operator: *Jocelyn Brooks*

Live Case 18: Deep Venous Thrombosis / Varicose Veins **INVA MED**
Operator: *Jocelyn Brooks*

Topic 15: Endovascular Treatment for Lower Limb Varicose Veins and DVT
Burçak Gümüş

10:30 - 10:50

COFFEE BREAK 

10:50 - 12:00

Live Cases

Moderators: *Mustafa Kürşat Tigen, Şevket Görgülü*

Panelists: *Okay Abacı, Fatih Güngören, Ahmet Kasapkara, Hikmet Hamur, Mustafa Mücahit Balcı, Mustafa Dođduş*



Live Case 19: Calcified SFA
Operators: *Hakan Uçar, Mustafa Topuz*

Live Case 20: Aortoiliac / SFA
Operators: *Ömer Göktekin, Ertan Vuruşkan*

12:00 - 12:30

Closing and Awards Ceremony



ASPIC 2020



23 February, Sunday

HALL B



GÖREME

08:30 - 09:30



Learning Session: From Simple To Complex Femoro -
Popliteal Interventions

Facilitators: *Selçuk Pala, Ertan Vurutan*



ORAL PRESENTATION



OP-02 / COMPARISON OF CONTACT ASPIRATION AND STENT RETRIEVER THROMBECTOMY AS A FIRST LINE APPROACH IN ENDOVASCULAR TREATMENT OF ACUTE STROKE: SINGLE CENTER EXPERIENCE

Ozcan Kocaturk¹, Fatih Gungoren², Mehtap Kocaturk¹

¹Harran University Faculty Of Medicine, Neurology, Sanliurfa

²Harran University Faculty Of Medicine, Cardiology, Sanliurfa

INTRODUCTION: Recent trials have revealed the efficacy of mechanical thrombectomy over medical treatment for patients with acute ischemic stroke. A direct aspiration first-pass technique (ADAPT) is proposed to be a faster thrombectomy technique than the stent retriever technique. This study investigated and compared the efficacy and adverse events of first-line ADAPT with those of first-line stent retrievers in patients with acute ischemic Stroke Tools and **METHOD:** Patients with acute stroke who underwent endovascular treatment between January 2015 and December 2018 were screened retrospectively. The patients treated with stent retriever were defined group1 and the patients treated with ADAPT were defined group 2. The two groups were compared with each other in terms of baseline characteristics, angiographic features, complications, 90-day modified Ranking Score (mRS) and all-cause mortality.

RESULTS: Demographics and clinical characteristics of patients were shown in table 1. Mean age, sex and comorbid diseases were similar between two groups. Stroke severity and ASPECT score at hospital admission were also similar between two groups ($p=0.164$, $p=0.676$ respectively). It was demonstrated that the mRS which indicator of functional independence at the third month was significantly higher in ADAPT group than stent retriever group (19(47%) vs. 10(24% $p=0.007$). Digital subtraction Angiography (DSA) findings were shown in table 2. There is significance regarding site of vessel occlusion between two groups ($p=0.017$). Also there is significant difference between two groups in term of TICI 2b-3 ($p<0.001$). However there is no significant difference between stent retriever and ADAPT techniques in term of hemorrhagic transformation rate and procedural complications. First pass effect was achieved in 28% of patients treated with ADAPT and %10 in the stent retriever group, with significant difference between two groups ($P=0.035$).

DISCUSSION: The main findings of our study were as follows: (I) mRS at 90 days was significantly higher in ADAPT group, (II) there is no significant difference between two groups in term of complications, (III) first pass effect was higher in ADAPT group. Our study demonstrated that despite similar complication rates, ADAPT is more effective thrombectomy technique than the stent retriever technique. Also previous study showed that it is faster and cost-effective than the stent retriever technique. But unfortunately most recommended product for ADAPT (Sophia -6 plus, ACE 68, React-71, CAT-7) are not readily available in our country. Our results also showed a significantly higher rate of application of salvage therapies in the first-line ADAPT group, which indicates that up to 45% of patients who received front-line ADAPT also received additional therapies, mostly stent retrievers, at an additional cost. Therefore, which technique is the most cost effective therapy still remains controversial.

Keywords: ischemic stroke, mechanical thrombectomy, direct aspiration, stent retriever

Table 1: Demographics and clinical characteristics of patients

	Stent retriever group	ADAPT group	P value
Number of Patient (n) (%)	42 (51.2%)	40 (48.8%)	0.820
Age (years)	64(14)	62(15)	0.618
Sex Female, n (%)	21 (50%)	18(45%)	0.650
Stroke severity, NIHSS at hospital admission	14 (4)	15(4)	0.164
Hypertension, n (%)	32(76%)	29(73%)	0.702
Hyperlipidemia, n (%)	14(33%)	6(15%)	0.053
Atrial fibrillation, n (%)	12(29%)	10(25%)	0.715
Diabetes Mellitus, n (%)	16(38%)	13(33%)	13(33%) 0.596

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Current smoking, n (%)	16(38%)	16(40%)	0.860
ASPECT score	7 (2)	7 (2)	0.676
Times metric (minutes)	217(108)	244(133)	0.335
Symptom-hospital admission	50(22)	55(43)	0.498
Hospital admission-Groin puncture	63(28)	48(24)	0.040
Groin puncture-reperfusion			
Intravenous thrombolysis, n (%)	13(31%)	10(25%)	0.428
mRS (0-2) at 90 days, n (%)	10(24%)	19(47%)	0.007
Mortality at 90 days, n (%)	15(36%)	15(36%) 13(33%)	0.759

NIHSS= National Institutes of Health Stroke Scale, ASPECT= Alberta Stroke Program Early CT Score, MCA= middle cerebral artery, mRS= modified Ranking Score, ADAPT= A direct aspiration first-pass technique

Table 2: Digital subtraction Angiography (DSA) findings

	Stent retriever group	ADAPT group	P value
Site of vessel occlusion, n (%)			
MCA-M1	21(50%)a	19(48%)a	0.017
MCA-M2	7(17%)a	0b	
ICA-Intracranial segment occlusion	4(1%)a	13(33%)b	
ICA-Tandem	8(2%)a	6(15%)a	
Vertebro-basilar	2(0.5%)a	2(0.5%)a	
mTICI 2b-3, n (%)	22(46%)	36(90%)	0.001
Complication, n (%)			
Symptomatic hemorrhage	4(10%)	4(10%)	0.516
Emboli to new territory	4(10%)	3(8%)	
Balloon guide catheter usage, n (%)	6(14%)	7(16%)	0.690
Number of passes	3.24(1.4)	2.65(1.8)	0.085
First pass recanalization, n (%)	4(10%)	11(28%)	0.035
Technique changed, n (%)	10(24%)	18(45%)	0.043

MCA=middle cerebral artery, ICA=Internal carotid artery, mTICI= modified Thrombolysis in Cerebral Infarction, ADAPT= A direct aspiration first-pass technique



OP-04 / ENDOVASCULAR TREATMENT OF AORTIC COARCTATION IN ADOLESCENTS AND ADULTS

Nadjib Mohamed Bouayed

Nadjib Mohamed Bouayed Department of vascular surgery Oran Algeria

INTRODUCTION: Effectiveness and durability of endovascular treatment of aortic coarctation(AC) in adolescents and adults

TOOLS AND METHODS: It is a prospective study of 44 patients, adolescents and adults, with isthmus AC performed from January 2014 to september 2019. The mean age of this series is 27 years(12-58). The mean diameter of AC was 2.9 mm(2.03-4.08). The mean length was 3.5 cm(1-5). The most common associated cardiac disease is bicuspid aortic valve. 2 patients had already undergone AC open repair. The mean procedure duration was 45 mn(30-40). 33 AC was treated by CP BIB expandable covered stent, 6 by a balloon expandable covered stent and 4 by a self-expandable covered stent

RESULTS: The technical success was 98%. No serious complication has occurred. Immediately after the procedure, the pressure gradient dropped to 0 mm/Hg in almost all patients except 2 patients, treated by self-expanding covered stent graft who kept a moderate 15 mm/Hg gradient. So the mean gradient that was at 53 mm/Hg, fell back in post procedure to an average of 2.02 mm. For a mean follow-up of 42 months(3-60), the mean systolic blood pressure coarctation gradient remained stable at 2.02 mm/Hg. CT scan that is always done at 6, 12, 24 months did not show any migration or fracture. There is no restenosis.

DISCUSSION AND CONCLUSION: In adolescents and adults, treatment of aortic coarctation and recoarctation, is currently performed usually by balloon-expandable covered stents that is safe and efficient

Keywords: coarctation, aorta, covered stent, cardiac disease, bicuspid valve

OP-05 / PERCUTANEOUS TREATMENT OF PERIPHERAL ARTERIAL DISEASE; SINGLE CENTER EXPERIENCES

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²Department of Cardiovascular surgery, Harran University Faculty of Medicine, Sanliurfa, Turkey

BACKGROUND: Peripheral arterial disease (PAD) is a common disease worldwide, frequently accompanied by coronary artery disease and is associated with increased mortality and morbidity. Percutaneous treatment modality has gradually become accepted as an alternative to surgical treatment of the PAD thanks to advancing in endovascular therapies including new device technologies and various-cell stent designs. Though percutaneous procedures is commonly carried out for decades, the success rate can vary remarkable differences even in among experienced centers. In this study, we aimed to present our percutaneous treatment experiences and peri-procedural outcomes of PAD in our center. **METHODS:** A total of 135 subjects who underwent percutaneous treatment for PAD between 2017 and 2019 were enrolled retrospectively in this study. The basal demographic and clinic features, peri-procedural characteristics and major adverse events were recorded for all patients. PAD interventions were divided into three groups as follow: I) Upper extremities arteries (except carotid and vertebral arteries) and renal artery interventions, II) iliac, femoral and popliteal interventions III) infra-popliteal / below knee interventions. The subject's features and peri-procedural characteristics were compared based on years.

RESULTS: Basal demographic and clinic features of the study population based on years are listed in Table 1. The mean age of study population was 59.2 (14.1) years with 73.3% of male. The most of cases had diabetes mellitus (57.8%), hypertension (63.7%), hyperlipidemia (62.2%) and current smoking history (65.2%). It was noticeable that the number of PAD intervention has increased over the years. Peri-procedural characteristics of the study population based on years are shown in Table 2. The lesion territory was upper extremities arteries and renal artery interventions in 17% patients, ilio-femoro-popliteal arteries in 48.1% patients and infrapopliteal in 34.8% patients. The overwhelming of the lesions were total occluded (79.3%). Contrast-induced nephropathy was occurred in 11.8% patients, major bleeding in 3.7% patients and mortality in 2.2% patients. There was no significant difference in terms of major adverse events over the years. The mean fluoroscopy duration was highest in infrapopliteal arteries interventions (Figure 1). The success rate was 87% in upper extremities arteries and renal artery interventions, 96.9% in ilio-femoro-popliteal arteries and 85.1 in infrapopliteal arteries (Figure 2).

CONCLUSION: Percutaneous interventions for the treatment of PAD are performed with high procedural success and acceptable adverse event ratio in our center. It is remarkable that the number of cases has increased over the years. Although the fluoroscopy duration is too long in infrapopliteal arteries interventions, the successful procedure can protect the patients from needless amputations

Keywords: Percutaneous Interventions, peripheral arterial disease, below knee interventions, fluoroscopy duration.

Figure 2. The procedure success rate

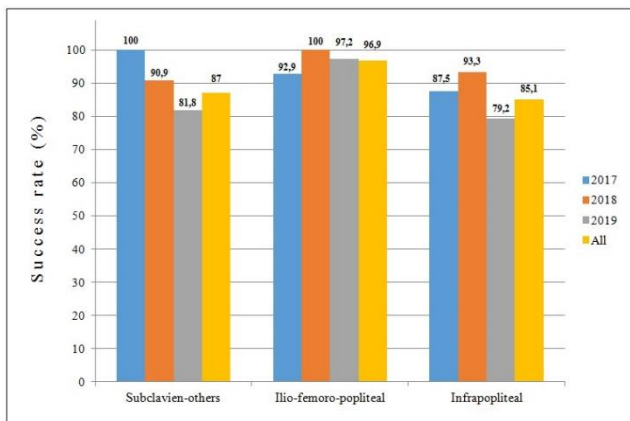


Figure1. The total fluoroscopy duration

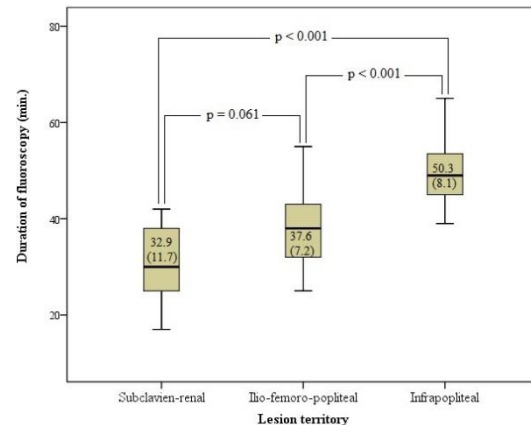




Table 1. Basal demographic and clinic features of the study population based on years.

Variables	2017 (n = 23)	2018 (n = 41)	2019 (n = 71)	All years	p value
Age, years	60.7 (13.1)	60.0 (15.6)	59.2 (13.7)	59.2 (14.1)	0.708
Male gender, n (%)	18 (78.3)	30 (73.2)	51 (71.8)	99 (73.3)	0.832
Body mass index (kg/m ²)	25.9 (3.2)	26.6 (3.5)	26.5 (3.0)	26.4 (3.2)	0.657
Risk factors, n (%)					
Diabetes mellitus	11 (47.8)	23 (56.1)	44 (62.0)	78 (57.8)	0.474
Hypertension	13 (56.5)	27 (65.9)	46 (68.4)	86 (63.7)	0.729
Hyperlipidemia	13 (56.5)	22 (53.7)	49 (69.0)	84 (62.2)	0.224
Current smoker	16 (69.6)	28 (63.8)	44 (62.0)	88 (65.2)	0.708
Medications, n (%)					
ACEi/ARB	13 (56.5)	23 (56.1)	40 (56.3)	76 (56.3)	0.999
Ca channel blocker	4 (14.4)	11 (26.8)	12 (16.9)	27 (20)	0.423
Beta blocker	12 (52.2)	13 (31.7)	41 (57.7)	66 (48.9)	0.028
Aspirine	15 (65.2)	28 (68.3)	59 (83.1)	102 (75.6)	0.096
Clopidogrel	12 (52.2)	20 (48.8)	46 (64.8)	78 (57.8)	0.214
Statin	12 (52.2)	22 (53.7)	49 (69.0)	83 (61.5)	0.165
OAC	1 (4.3)	3 (7.3)	2 (2.8)	6 (4.4)	0.53
Indications					
Extremity symptoms/others	1 (4.3)	11 (26.8)	11 (15.5)	23 (17.0)	0,156
Claudication	14 (60.9)	15 (36.6)	36 (50.7)	65 (48.1)	
Diabetic Foot wounds	8 (34.8)	15 (36.6)	24 (33.8)	47 (34.8)	

Table 2. Peri-procedural characteristics of the study population based on years.

Variables	2017 (n = 23)	2018 (n = 41)	2019 (n = 71)	All years (n=135)	p value
Lesion territory, n (%)					
Upper extremity-others	1 (4.3)	11 (26.8)	11 (15.5)	23 (17.0)	0,156
Ilio-femoro-popliteal arteries	14 (60.9)	15 (36.6)	36 (50.7)	65 (48.1)	
Infrapopliteal	8 (34.8)	15 (36.6)	24 (33.8)	47 (34.8)	
Lesion types, n (%)					
Sub-total occlusion	4 (17.4)	11 (26.8)	13 (18.3)	28 (20.7)	0,513
Total occlusion	19 (82.6)	30 (73.8)	58 (81.7)	107 (79.3)	
Major adverse events, n (%)					
Contrast-induced nephropathy	3 (13.0)	5 (12.1)	8 (11.2)	16 (11.8)	-
Major bleeding	1 (4.3)	2 (4.8)	2 (2.8)	5 (3.7)	
Mortality	-	1 (2.4)	2 (2.8)	3 (2.2)	



OP-06 / PERIAORTIC ADIPOSE TISSUE THICKNESS IS ASSOCIATED WITH ILIAC TOTAL OCCLUSION

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INTRODUCTION: Peripheral arterial disease (PAD) is associated with increased mortality and morbidity. Iliac total occlusion (ITO) is a common finding in 25-30% of the patients with PAD. Periaortic adipose tissue (PAAT) that locally acts surrounding aorta, may contribute to cardiovascular diseases. In the present study, we evaluated the association between PAAT and ITO.

TOOLS AND METHOD: The study population consisted of 40 patients [20 ITO (+) group and 20 ITO (-) group] who underwent lower limb diagnostic angiography and diagnosed PAD. For quantification of PAAT, axial T1-weighted fast spin-echo magnetic resonance images of the abdomen were obtained.

RESULTS: ITO (+) group had significantly higher amount of PAAT, mean platelet volume (MPV), uric acid, and low density lipoprotein cholesterol (LDL-C) levels compared to ITO (-) group [p<0.001, p = 0.018, p = 0.032, and p = 0.039, respectively]. The multivariate logistic regression models revealed that PAAT [p<0.001, Odds ratio (OR) = 1.876, 95% Confidence interval (C.I.) = 1.308-7.432] and MPV [p = 0.024, OR = 1.015, 95% C.I. = 0.908-1.826] were independent predictors of ITO.

CONCLUSION: Our results suggest that PAAT plays a critical role in the pathogenesis of ITO. In the present study it was shown that increased PAAT and MPV were independently associated with ITO.

Keywords: peripheral arterial disease, periaortic adipose tissue, iliac total occlusion

The independent predictors of ITO in multivariate logistic regression analysis

Variable	p-Value	Odds Ratio (95% C.I.)
PAAT	< 0.001	1.876 (1.308-7.432)
MPV	0.024	1.015 (0.908-1.826)

Multivariate logistic regression (method = Forward Stepwise (Wald)), ITO: iliac total occlusion, PAAT: periaortic adipose tissue, MPV: mean platelet volume, C.I.: confidence interval



OP-07 / OPTIMAL FLUOROSCOPIC ANGLE FOR ENDOVASCULAR INTERVENTION TO THE SUPERFICIAL FEMORAL ARTERY

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INTRODUCTION: Percutaneous intervention in lesions less than 25 mm in superficial femoral artery (SFA) lesions and surgical treatment strategy in lesions longer than 25 mm should be considered. Appropriate fluoroscopic position is important to assess the length of the lesion and to determine balloon or stent size if endovascular intervention is planned. Aim of this study was to determine the optimal fluoroscopic angle for intervention in SFA lesions.

TOOLS AND METHODS: In 2019, 48 patients diagnosed with SFA stenosis by Computed tomography angiography (CTA) in our center and underwent endovascular intervention were examined. Digital subtraction angiography (DSA) was applied to the patients and fluoroscopic image angles were compared retrospectively.

RESULTS: Of all patients included in the study, 37 (77%) were male. The mean age of the patients was 60.9 ± 10.4 years, body mass index was 23.4 ± 1.9 kg / m² and ankle-arm index was 0.64 ± 0.2 . (Table 1). Initially, images were obtained by antero - posterior angulation. 32 patients were treated with endovascular intervention in 15-30 degree ipsilateral position (7 of which were caudal and 5 were cranial), 13 in antero-posterior (AP) position and 3 in contralateral oblique position. The majority of patients (> 66%) had endovascular intervention at the ipsilateral angle.

DISCUSSION: SFA endovascular interventions are frequently performed. It is important to determine the severity, length of the lesion as well as to work at the most appropriate fluoroscopic angle to reduce the duration of the procedure, the amount of radiation and contrast. In our study, we performed ipsilateral procedure at 15-30 degrees in 32 of 48 patients. The lesion appearance of the patients who had endovascular intervention in the AP position was not very different from the ipsilateral position. Imaging with ipsilateral angulation is especially necessary to evaluate the distal part of the femoral artery. In general, AP and contralateral angulation may be needed in case of tortiosity and severe calcifications.

Keywords: sfa, fluoroscopic angle, endovascular intervention

Table 1. Baseline characteristics

Age (year)	60.9±10.4
Male	%77
Ankle Brachial Index	0.64±0.2
Hypertension	%65
Coronary Artery Disease	%73
Multi-vessel disease	%58
DM	%70
Smokers	%62
Dyslipidemia	%80
Body mass index (kg/m ²)	23.4±1.9
Creatinin (mg/dl)	1.03 ± 0.23
Cilostazol	%85
ACEi	%38
B-blocker	%44
Aspirine	%90
Statin	%80



OP-10 / TP-E, QT AND QTc INTERVALS AND TP-E/QT AND TP-E/QTc RATIOS IN PATIENTS WITH DIABETIC PERIPHERAL ARTERIAL DISEASE

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BACKGROUND: Prolongation of the ventricular repolarization is very important in determining morbidity and mortality in many cardiovascular diseases. The aim of our study was to evaluate Tp-e, QT, QTc intervals, Tp-e/QT, and Tp-e/QTc ratios in patients with the diabetic peripheral arterial disease according to the stage of the disease.

METHODS: 150 patients with diabetic peripheral arterial disease of whom 45 were at stage 1, 41 were at stage 2, 35 were at stage 3 and 29 were at stage 4 according to the Fontaine staging were included in the study. Those patients who applied to our cardiology department with various kinds of lower extremity complaints between January 2019 and December 2019 had undergone lower limb arterial doppler ultrasonographic evaluation. Those who had at least 50 % stenoses and a decrease in flow velocity two times or more in at least one lower limb were selected and included in the study. Then, resting electrocardiography was taken in all patients involved in the study. Tp-e and QT values were measured by using a digital caliper, QTc values were found with the help of Bazett's formula and then Tp-e/QT and Tp-e/QTc ratios were found.

RESULTS: Statistical analysis was made using SPSS program version 20.0 and one way ANOVA test was used to compare the independent means. There was a statistically important difference between 4 groups in terms of Tp-e values (F=42.02, P<0.00001), but not an important difference between groups in terms of QT values (F=2.66, P=0.0503). There was a statistically important difference between 4 groups in terms of heart rate (F=3.28, P=0.023), in terms of QTc value (F=2.89, P=0.038), in terms of Tp-e/QT ratio (F=26.82, P<0.00001) and in terms of Tp-e/QTc ratio (F=19.70, P<0.00001).

CONCLUSION: Tp-e, QTc values, and Tp-e/QT and Tp-e/QTc ratios increases as the stage of the disease increase in patients with diabetic peripheral arterial disease. So, repolarization markers increase as the stage of the disease increases in patients with diabetic peripheral arterial disease. This may be important to clarify in terms of morbidity and mortality in diabetic peripheral arterial disease patients.

Keywords: Tp-e interval, QT interval, QTc, Tp-e/QT ratio, Tp-e/QTc ratio, diabetic peripheral arterial disease



OP-11 / A COMPARISON OF N-BUTYL CYANOACRYLATE (NBCA) AND RADIOFREQUENCY ABLATION IN THE TREATMENT OF GREAT SAPHENOUS VEINS 8 MM OR MORE IN SIZE

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BACKGROUND: To compare N-butyl cyanoacrylate (NBCA) and radiofrequency ablation (RFA) in the treatment of patients with great saphenous vein diameters of 8 mm or more.

METHODS: One hundred twenty consecutive patients presenting to the cardiovascular surgery department with a great saphenous vein diameter exceeding 8 mm at the saphenofemoral junction between January 2017 and December 2018 were included in the study. The first randomly selected 60 patients (group 1) received NBCA and the other 60 patients (group 2) received RFA. Patients were assessed on the second day, the first week, and the first, third, and sixth months. Major and minor complications were recorded.

RESULTS: Minor complications in NBCA and RFA were hyperemia at 20% and 30% ($P = 0.50$), ecchymosis at 16.8% and 48.2% ($P = 0.02$), and edema at 40.0% and 65.0% ($P < 0.08$), respectively. No major complication was observed in any patient. Recanalization developed during monitoring in 5 patients in NBCA the group, a rate of 8,3%, in 1 patient in RFA the group, a rate of 1,6%. Success rates in the RFA and NBCA groups were 98,4% and 91,7%, respectively. Mean time to return to daily activity was 0.8 days in the NBCA group and 1.6 days in the RFA group ($P < 0.006$) whereas mean time to return to work was 1.8 days in the NBCA group and 2.2 days in the RFA group ($P < 0.07$). There was no statistically significant difference between the groups in terms of pain during the procedure or postoperatively. Less pain was reported in the NBCA during both ($P < 0.02$).

CONCLUSIONS: In terms of success rate; RFA is superior to NBCA in the treatment of saphenous veins larger than 8 mm in diameter.

Keywords: N-butyl cyanoacrylate, Radiofrequency Ablation, Great Saphenous Vein

OP-12 / RELATIONSHIP BETWEEN AORTIC STIFFNESS AND CORONARY ARTERY SAPHENOUS VEIN GRAFT DISEASE

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AIM AND INTRODUCTION: The incidence of cardiovascular diseases (CVD) is increasing gradually. CVDs are the most important cause of mortality and morbidity in the world. Among the cardiovascular diseases, the most common is coronary artery disease (CAD). Many risk factors have been identified for CAD. Aortic stiffness (AS) is also a risk factor for CAD. AS is a decrease in vascular elasticity caused by loss of elastic tissue in the vessel wall. AS occurs as a result of atherosclerosis and aging. Coronary artery bypass grafting (CABG) operation is increasingly performed in CAD treatment. It is known to be significantly related between aortic stiffness and CAD. It is known to be significantly related between aortic stiffness and CAD. In our study, we aimed to evaluate the relationship between AS and coronary artery saphenous vein graft (SVG) disease.

MATERIALS-METHODS: In our study, 75 consecutive patients who underwent CABG operation at least 3 years ago and who underwent coronary angiography (CAG) for any reason were included prospectively. The diagnosis of SVG disease was defined as at least one graft and at least 50 % stenosis. Saphenous graft disease was diagnosed by two interventional cardiologists. AS parameters including pulse wave velocity (PWV) and augmentation index (AIx) were calculated for 50 patients with SVG disease and 25 patients without SVG disease by using applanation tonometer.

RESULTS: Baseline characteristics, demographic features, laboratory findings and AS parameters of the patients were summarized in Table. The mean age of the study subjects was 66.7 ± 10.1 (41.3%, n=31, women) years. There was no difference between the groups in terms of age, gender, diabetes mellitus, hypertension, hyperlipidemia and smoking. In comparison of laboratory values among groups, total cholesterol (196.56 ± 31.59 versus 178.00 ± 31.44 , $p = 0.019$) and LDL cholesterol (136.40 ± 22.03 versus 103.80 ± 6.41 , $p < 0.001$) were found to be significantly higher in the group with SVG disease. The values of PWV (13.47 ± 1.74 versus 9.02 ± 2.93 , $p < 0.001$) and AIx (29.92 ± 10.03 vs 20.44 ± 8.50 , $p < 0.001$) were significantly higher in the SVG disease group than the control group. In the ROC analysis, a cut-off value of PWV > 11.9 had % 86.0 sensitivity and % 80.0 specificity (AUC:0.887) and AIx > 21.5 had % 80.0 sensitivity and % 56.0 specificity (AUC: 0.766) for SVG disease. (Figure)

CONCLUSION: In our study, we determined that mean PWV and AIx values were significantly higher in patients with SVG stenosis compared to the control group. The pathogenesis of SVG disease includes thrombosis, intimal hyperplasia and atherosclerosis. Similarity between native coronary arteries and SVG in term of atherosclerosis suggest possibility of same pathophysiology and risk factors. Previous studies have shown that AS is related to the atherosclerosis in native coronary arteries. Similarly, in our study we shown AS is increased in SVG patients.

Keywords: Aortic Stiffness, pulse wave velocity, augmentation index, Coronary Artery Saphenous Vein Graft Disease

Figure

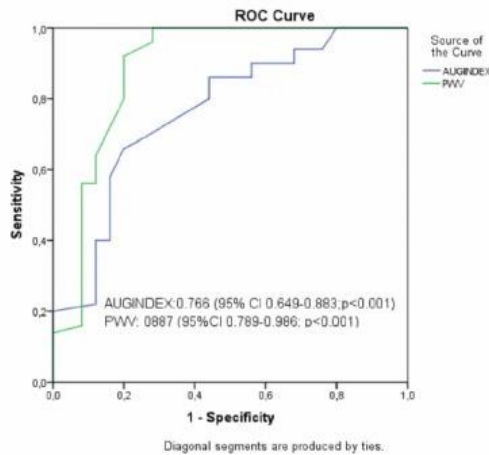


Figure. ROC analysis of Aortic Stiffness parameters.

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Table

Table. Demographic, laboratory and Aortic stiffness parameters findings of patients with Aortic Stiffness And Coronary Saphenous Graft Disease

Variable	SVG Disease Group (N=50)	SVG normaly (Control) Group (N=25)	p
Age (year)	66.58±10.30	66.92±9.87	0.892
Gender (female),% (n)	40 (20)	44 (11)	0.740
Diabetes Mellitus,% (n)	34 (17)	44 (11)	0.399
Hypertension, % (n)	76 (38)	64 (16)	0.275
Family history % (n)	8 (4)	0 (0)	0.146
Current smoker, n (%)	30 (15)	20 (5)	0.356
Hyperlipidemia, n (%)	32 (16)	32 (8)	1.000
Obesity % (n)	54 (27)	76 (19)	0.065
COPD % (n)	4(2)	12(3)	0.190
Heart failure % (n)	44 (22)	68 (17)	0.055
BMI (kg/m2)	27.42 ± 5.34	27.00 ± 2.38	0.708
SBP (mmHG)	122.70 ± 18.38	127.28 ± 25.36	0.199
DBP (mmHG)	74.36 ± 12.76	77.84 ± 9.06	0.159
Heart rate (beat/min)	80.2 ± 10.6	78.7 ± 7.8	0.227
WBC (X1000/μL)	9.28±1.95	9.42±2.73	0.802
Hemoglobin (g/dL)	13.06±2.32	12.48±0.90	0.234
Hematocrit %	39.05±6.70	37.18±2.34	0.182
PLT (X1000/μL)	225.94±59.95	226.04±66.15	0.995
Glucose (mg/dL)	152.68±56.68	165.80±69.01	0.382
Urea (mg/dL)	42.76±22.57	37.36±14.13	0.279
Creatinine(mg/dL)	1.1 ± 0.3	0.9 ± 0.4	0.521
Sodium (mmol/L)	137 ± 5	136 ± 4	0.169
Uric acid (mg/dL)	5.48±1.45	5.69±1.52	0.552
CRP (mg/dL)	1.90± 0.54	1.60± 0.92	0.211
Total Bilirubin (mg/dL)	0.56±0.40	0.47±0.17	0.290
Total Cholesterol (mg/dL)	196.56±31.59	178.00±31.44	0.019
HDL cholesterol (mg/dL)	41.70±13.9	43.12±9.0	0.649
LDL cholesterol (mg/dL)	136.40±22.03	103.80±6.41	<0.001
Triglycerides (mg/dL)	144.34±75.68	148.76±83.61	0.819
LVEF %	51.58±9.22	51.89±4.62	0.873
PWV (m/s)	13.47±1.74	9.02±2.93	<0.001
Aix (%)	29.92±10.03	20.44±8.50	<0.001

COPD: Chronic Obstructive Pulmonary Disease, **BMI:** Body Mass Index, **SBP:** Systolic Blood Pressure, **DBP:** Diastolic Blood Pressure **WBC:** White Blood Cell, **PLT:** Platelet, **HDL:** High density lipoprotein, **CRP:** C reactive protein, **LDL:** low density lipoprotein, **LVEF:** Left ventricular ejection fraction, **PWV:** Pulse wave velocity, **Aix:** Augmentation index



OP-13/ JAMMING OF THE GUIDING CATHETER IN THE AORTA DURING PERCUTANEOUS CORONARY INTERVENTION; TREATMENT MANAGEMENT OF THIS COMPLICATION

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A 66-year-old male patient admitted to our hospital emergency department with complaints of pressure on the chest related to exertion for 5 days. After the patient's troponin levels were eventuated negative, the patient was evaluated as unstable angina pectoris(USAP) and hospitalized by planning coronary angiography(CAG). The patient was loaded with 300mg acetylsalicylic acid and 300mg clopidogrel. In addition, 40mg atorvastatin and 2x6000IU enoxaparin sodium treatments were started.

The patient was taken to the catheter laboratory for CAG procedure 1 day later. 7 French (F) sheaths were placed in the right common femoral artery(CFA). The patient's coronary angiography was performed smoothly by means of 6F right and left judkins diagnostic catheters. As a result of KAG; There were 95% stenosis in the circumflex(Cx) artery proximal and other coronary arteries non-critical lesions. In the same session, it was decided to interfere with the Cx artery. An attempt was made to engage the left main coronary artery ostium with a 7F EBU guiding catheter. While trying to insert EBU catheter, it was found that no contrast could be delivered through the catheter due to resistance. Then, the course of the EBU catheter was tried to be evaluated and it was seen that the catheter folded and looped at the level of the renal arteries. Then, respectively; the loop was tried to be corrected by conversely rotation, it was tried to pass 0.038 hydrophilic wire through it and the last 0.014 hydrophilic wire was tried to pass, but it was not successful. Then, the EBU catheter was tried to be taken into the 7F sheath, but this was not successful(figure-1). Thereupon, a 10 F sheath was placed in the left CFA. Then, with the help of the right judkins diagnostic catheter, the snare was advanced to the ascending aorta. In this way, the EBU was captured from the tip of the catheter by snare and pulled out through the sheath placed in the left CFA(figure-2). The EBU catheter in the 7F sheath in the right CFA was recovered from the outer part of the sheath with the help of a scalpel(figure-3). Then, the distal part of the EBU catheter, which was divided into two, was taken out from the left with the help of 10 F sheath and the proximal part was taken out from the right with the help of 7 F sheath (figure 4-5). The fact that such a deterioration in the guiding catheter, which is more durable after CAG performed without any problem with diagnostic catheters suggests that it may be caused by problems related to the structure of the catheter. Especially in looped catheters, the most basic way is to wait for the loop to recover with maneuvers in the opposite direction of the previous maneuvers. Another method is to open the loop by passing through the catheter with a wire. In addition, long sheath usage in excessively curved peripheral arteries, catheter manipulation with 0.038 mm wire and avoiding excessive manipulation will prevent this type of complication.

Keywords: unstable coronary artery disease, guiding catheter jamming aorta, snare using

Figure-1: EBU catheter looped



Figure-2: Captured from the tip of the catheter by snare

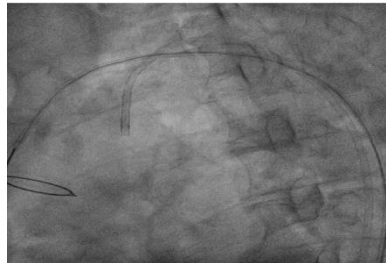


Figure-3





OP-14 / BASELINE SERUM URIC ACID LEVELS ARE ASSOCIATED WITH ALL-CAUSE MORTALITY IN AORTIC VALVE STENOSIS PATIENTS AFTER TRANSCATHETER AORTIC VALVE IMPLANTATION

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BACKGROUND AND AIM: Whether serum uric acid (UA) is associated with all-cause mortality in patients with aortic valve stenosis (AS) following transcatheter aortic valve implantation (TAVI) remains unclear.

METHODS: Fifty one patients (20 men; mean age $78,27 \pm 8,63$ years), who underwent successful transcatheter aortic valve implantation, were recruited in this study from July 2016 to January 2018. Curve-fitting and Cox proportional-hazard regression models with a hazard ratio (HR) and 95% confidence interval (CI) were used. The follow-up intervals were 3, 6 and 12 months. Clinical endpoints analyzed, included the composite of all-cause death and aortic valve insufficiency.

RESULTS: During a mean follow-up of 306.31 ± 39.15 days, 14 (27,4%) patients died from all causes. Patients were divided into two groups [the high-UA group (n=21) and the low-UA group (n=30)] based on the serum UA threshold value (5.6 mg/dl) identified through curve fitting. Nine (42,85%) patients died in the high-UA group, and five (16,6%) patients died in the low-UA group ($p < 0.001$). Univariate analysis showed that the risk of all-cause mortality in the high-UA group was significantly greater than that in the low-UA group. Aortic valve insufficiency was similar in both groups two (9,52%) patients in the high-UA group, and three (10%) patients in the low-UA group ($p > 0,05$).

CONCLUSIONS: This study demonstrated that elevated serum UA (> 5.6 mg/dl) is associated with all-cause mortality in AS patients after TAVI.

Keywords: Aortic stenosis, transcatheter aortic valve implantation, mortality, uric acid



OP-17 / THE ASSOCIATION BETWEEN CAROTID INTIMA MEDIA THICKNESS AND SYNTAX SCORE II IN PATIENT WITH CHRONIC CORONARY SYNDROME

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AIM: Carotid intima media thickness (CIMT) is a widely used non-invasive surrogate marker for subclinical or early atherosclerosis and found to be an independent predictor for cardiovascular events such as mortality, myocardial infarction and stroke. Syntax score II (SSII) is a highly predictive scoring system, which is used to improve individualized assessment of patients with complex coronary artery disease and facilitates clinical decision making. In this study, we aimed to analyze the correlation between CIMT and SS II in patient with chronic coronary syndrome.

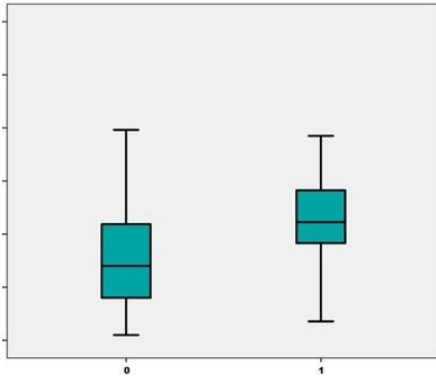
METHOD: In the study, we enrolled 346 patients, who underwent coronary angiography for stable angina pectoris. CIMT and SSII was calculated for each patient and the patients were divided into two groups as low CIMT group and high CIMT group according to their median CIMT value.

RESULTS: The average age of the patients was 67.1 years and 71% of the patients were male. CIMT was dichotomized into high and low CIMT groups according to median CIMT value(7.9). In linear regression analysis, there was a moderate correlation between CIMT and SS II($r: 0.56$).

DISCUSSION: CIMT is a non-invasively and reliably measured parameter, which may also have a pathogenetic relationship with the initiation and progression of coronary artery disease through biochemical processes.

Keywords: Carotid intima media thickness, syntax score II, coronary artery disease

Figure-1



CIMT levels according to median CIMT value



OP-18 / CORONARY THROMBOSIS AFTER TAVI; A LATE COMPLICATION

Bekir Çalapkorur

A 68 years old man presented to emergency department of Kayseri City Hospital with an hour chest pain. His ECG showed broad ST segments depression. Physical examination revealed 2/6 systolic murmur at cardiac listening, rales at basal of lungs and no other pathologic finding. Blood pressure was 100/60 mmHg. In patient history, TAVI was performed 10 months ago. Echocardiography showed decreased left ventricle ejection fraction(%35) with severe hypokinesia at anterior, anterolateral and septal walls, TAVI graft at aortic valve with minimal aortic regurgitation and no gradient at aortic valve and no other valve dysfunction. Coronary angiogram was performed immediately. In coronary angiogram, extended thrombus at left main coronary to LAD and LCX and gap between valve and aorta wall were revealed (Figure 1,2 and 3). Patient referred to emergency coronary by-pass surgery. At by-pass surgery, grafts was placed to LAD and LCX. After surgery, despite of intra-aortic balloon counterpulsation and full dose vasoconstrictor agents, blood pressure did not elevate. Patient was ex 12 hours after surgery.

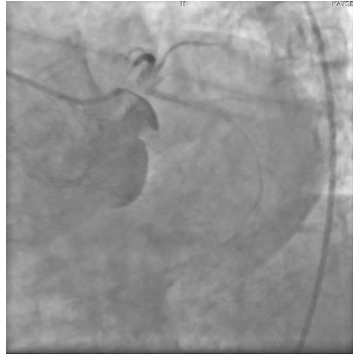
In this case, huge coronary thrombosis occurred 10 months after TAVI. A gap between valve graft and aorta could be a source of thrombosis. More intensive antithrombotic therapy can be considered in patients with gap after TAVI such as this case.

Keywords: Transcatheter aortic valve implantation, coronary thrombosis, acute myocardial infarction

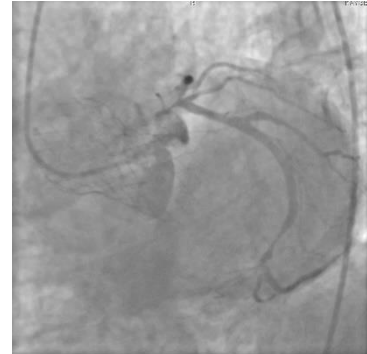
Coronary Angiogram Image



Coronary Angiogram Image



Coronary Angiogram Image





OP-20 / ASSOCIATION BETWEEN SERUM PRO-BNP AND CORONARY ARTERY ECTASIA

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INTRODUCTION: Coronary artery ectasia (CAE) is characterized by localized or diffuse dilatation of the coronary arteries. CAE is determined as the ratio of the dilated segment of coronary artery to the adjacent normal segment >1.5 . Previous studies have shown that CAE can cause myocardial ischemia and the most frequent symptom of CAE patients is stable angina pectoris (SAP). Pro-Brain Natriuretic Peptide (Pro-BNP), which has an important role in the diagnosis and prognosis of acute coronary syndromes and heart failure, has been shown to increase in patients with stable coronary artery disease and SAP. The relationship of Pro-BNP with CAE is unknown. In this study, we aimed to investigate whether there is a relationship between Pro-BNP level and CAE.

METHODS: Totally 248 patients with CAE without significant stenosis ($<50\%$ stenosis) in epicardial coronary arteries were included the study. Patients diagnosed as acute coronary syndrome, who had significant coronary artery stenosis of at least one epicardial coronary artery or previous history of coronary intervention, had mild or significant valve dysfunction, had a history of heart failure, had chronic kidney and liver disease, had any inflammatory or autoimmune disease or malignancy were excluded from study. Also, if the patients' Pro-BNP level was not evaluated at the time of coronary angiography or hospitalization, they were excluded from the analysis.

RESULTS: The mean age of the study population was 60.2 ± 8.8 years (35.3%, $n=126$, female). The baseline demographic characteristics of the groups are presented in Table-1. The laboratory variables are summarized in Table-2. There was no significant difference between the groups in terms of routine blood parameters, lipid parameters, fasting blood glucose, C-reactive protein, and Hs-Troponin. However, the mean Pro-BNP level was statistically significantly higher in the CAE patients than the control subjects (33 ± 17 ng/mL vs. 18.9 ± 8.6 ng/mL, $p<0.001$). In receiver operating characteristic (ROC) analysis, a cut-off value of $\text{Pro-BNP} \geq 18.5$ ng/mL had 80.4% sensitivity and 60.8% specificity for predicting CAE [area under the curve: 0.819, 95% CI 0.776 -0.862; $p<0.001$]. Univariate and multivariate logistic regression analyses results are summarized in Table-3. The multivariate analysis that included smoking, systolic blood pressure, diastolic blood pressure, and Pro-BNP has shown that smoking (HR:1.966, 95% confidence interval (CI) 1.155-3.345; $p=0.013$), diastolic blood pressure (HR:1.024, 95%CI 1.002-1.046; $p=0.029$), and Pro-BNP (HR:1.125, 95%CI 1.088-1.163; $p<0.001$) were independently associated with CAE.

CONCLUSION: In the present study, we demonstrated that compared to the control subjects, serum Pro-BNP level was significantly increased in patients with CAE and increased serum Pro-BNP levels was an independently associated with CAE.

Keywords: Pro-Brain Natriuretic Peptide, Coronary artery ectasia, Myocardial ischemia

Table-1

Variables	CAE group (n=204)	Control group (n=153)	p
Age, years	60.4 ± 9.9	59.9 ± 7.0	0.670
BMI (m^2/kg)	24.3 ± 5.9	25.1 ± 5.5	0.315
Female, % (n)	35.8 (73)	34.6 (53)	0.823
Diabetes mellitus, % (n)	33.3 (69)	32.0 (49)	0.795
Hypertension, % (n)	66.2 (135)	58.2 (89)	0.122
Hyperlipidemia, % (n)	57.8 (118)	64.7 (99)	0.189
Smoking, % (n)	42.6 (87)	30.7 (47)	0.021
Pulmonary disease, % (n)	9.3 (13)	11.8 (18)	0.452
Systolic blood pressure (mmHg)	123 ± 21.1	117 ± 13	0.001
Diastolic blood pressure (mmHg)	78 ± 11	74 ± 12	0.001
Left ventricular EF, %	59.9 ± 3.1	60.4 ± 4.7	0.415

Table-1 Comparison of baseline characteristics of study groups.

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Table-2

Variables	CAE group (n=204)	Control group (n=153)	p
Hemoglobin, g/dL	13.6 ± 1.6	13.5 ± 1.5	0.341
Hematocrit, %	39.9 ± 5.2	39.1 ± 3.9	0.406
White blood cell count, ×10 ³ /mL	7.3 ± 2.2	7.4 ± 2.9	0.960
Platelet count, ×10 ³ /mL	244 ± 61	254 ± 53	0.514
Lymphocyte count, ×10 ³ /mL	2.4 ± 1.0	2.5 ± 1.1	0.752
Neutrophil Count, ×10 ³ /mL	4.4 ± 1.4	4.5 ± 1.3	0.667
Neutrophil/ Lymphocyte ratio	1.99 ± 1.1	1.89 ± 0.9	0.725
Fasting glucose (mg/dL)	132 ± 37	139.5 ± 46	0.568
Creatine (mg/dL)	0.84 ± 0.2	0.75 ± 0.1	0.421
C-reactive protein (mg/L)	2.9 ± 2.1	2.1 ± 1.6	0.235
Hs-Troponin (ng/mL)	7.7 ± 3.1	6.7 ± 2.4	0.378
Total Cholesterol (mg/dL)	209 ± 47.8	212 ± 34	0.744
HDL-Cholesterol (mg/dL)	44 ± 10.0	45 ± 8.1	0.396
LDL-Cholesterol (mg/dL)	144 ± 34	141 ± 36	0.546
Triglyceride (mg/dL)	190 ± 94	184 ± 97	0.780
Pro-BNP (ng/mL)	33 ± 17	18.9 ± 8.6	<0.001

Table-2 Comparison of laboratory parameters of study groups.

Table-3

Analysis Variables	Univariate		Multivariate	
	P	OR [95% CI]	P	OR [95% CI]
Hypertension	0.122	1.407 (0.913-2.169)		
Hyperlipidemia	0.189	0.748 (0.486-1.154)		
Smoking	0.022	1.677 (1.078-2.608)	0.013	1.966 (1.155-3.345)
Systolic blood pressure	0.001	1.021 (1.009-1.034)		
Diastolic blood pressure	<0.001	1.032 (1.013-1.051)	0.029	1.024 (1.002-1.046)
Pro-BNP	<0.001	1.122 (1.087-1.159)	<0.001	1.125 (1.088-1.163)

Table-3 Univariate and multivariate logistic regression analysis of possible predictors of coronary artery ectasia.



CASE PRESENTATION



CP-01 / ENDOVASCULAR TREATMENT OF A RENAL ARTERIOVENOUS FISTULA

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INTRODUCTION: Renal arteriovenous fistula (RAVF) is a rare disease. The causes of this pathological connection between renal arteries and veins may be congenital or iatrogenic. The majority of renal AVFs are asymptomatic. However, some may present with flank pain, hypertension, heart failure, renal insufficiency or hemorrhage following rupture of the malformation. At physical examination, continuous abdominal bruit or palpable thrill may be present. Computed tomography, ultrasound Doppler and angiography are the main diagnostic tools used for the detection of RAVFs.

CASE: A 53 years old male without any medical history was admitted to our clinic for dyspnea evaluated as NYHA class 2-3 and right lumbar flank pain. Clinical examination found left lung crackles and abdominal examination revealed a continuous murmur.

Echocardiography objectified a left ventricular ejection fraction of 54% and the NT-proBNP level was at 400 pg/ml. The patient underwent then a CT angiography that has shown a markedly large right renal vein (antero-posterior diameter of 33mm) with an early opacification of the renal vein on the arterial phase (Figure1). It should be noted that there was no renal failure.

PROCEDURE: We decided to perform an arteriographic study. The aim of the procedure was to close the fistula of the right renal artery branch. The procedure was performed by puncturing the right femoral artery under local anesthesia, the right renal artery was selectively catheterized and the presence of RAVF was confirmed (Figure2).

We proceeded to place a 10 mm vascular Plug as therapeutic treatment with good angiographic results (Figures 3,4). No postoperative complications were noticed, and the patient was discharged from the hospital within 24 hours. Control CT-angio made 6 months after the intervention showed no signs of RAVF (Figure5).

CONCLUSION: The endovascular treatment of this rare and complex vascular disease has shown a less invasive alternative to the surgical approach with more safety, great therapeutic success and low morbi-mortality. However, a careful follow-up is essential to reduce the risk of late failures.

Keywords: Renal arteriovenous Fistula, Arteriovenous Malformations, endovascular treatment

Figure1. Preoperative contrast-enhanced CT with 3D reconstructions showing the right renal AVF

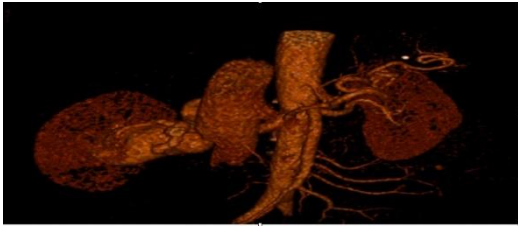


Figure2. Intraoperative selective angiography showing the AVF

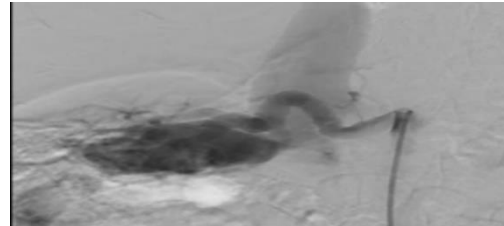
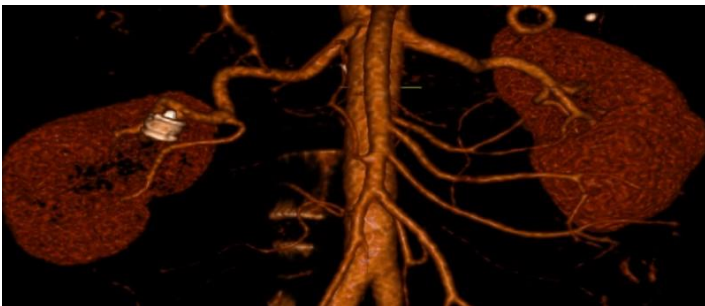


Figure5. Post-operative contrast-enhanced CT with 3D reconstructions showing the effective exclusion of both the aneurysm and the fistula.





CP-02 / STEP BY STEP SUCCESSFUL REVASCULARIZATION OF TOTAL OCCLUSION OF SUPERIOR MESENTERIC ARTERY IN PATEINT WITH DELAYED MESENTERIC ISCHEMIA: BALLOON - THROMBOLYSIS – STENTING

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Seventy-one years-old female patient admitted to emergency department with abdominal pain and no pathology was detected. However, patient admitted to gastroenterology specialist with persistent abdominal pain two days later and after first examination abdominal computed tomographic angiography was performed and total occlusion of superior mesenteric artery(SMA) was detected. patient was referred to our center to perform angiography and angioplasty if necessiated. We perform angiography and found total occlusion of SMA. We decided to angioplasty and firstly, 7F sheath was inserted to right femoral artery and 7F Judkins right guiding catheter was advanced to SMA. The lesion was crossed by floppy guide wire and was inflated with 3.0X20 and 4.0X20 balloons. Then we took control angiogram and found dense organized thrombus spreading to side branches of SMA. So, we decided to thrombolysis and firstly we advanced microcatheter over the floppy wire just proximal part of thrombus. 3 mg tPA was injected and 2 mg per hour dose of tPA infusion was given during 6 hours. Then control angiogram was taken and residual thrombus was detected So 4.0x18 mm stent was inserted and postdilated with 4.5x8 mm NC balloon. at second day of angioplasty a drop in hemoglobin level was noticed and abdominal CT revealed retroperitoneal bleeding. four unit red blood cell infusion was given and bleeding was taken under control. Patient was discharged with no complaint at sixth day.

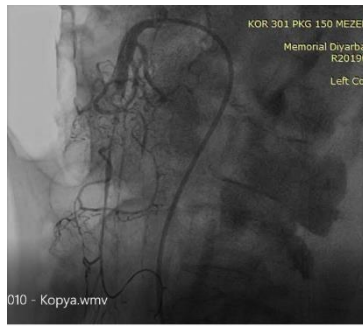
Keywords: delayed mesenteric ischemia, angioplasty, thrombolysis, stenting

1



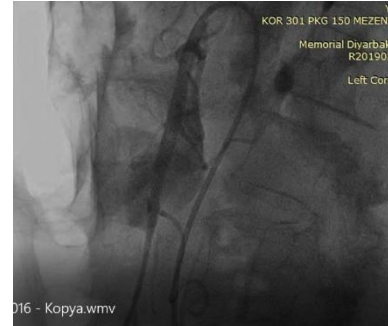
first angiogram

2



After balloon inflation

3



Final angiogram



CP-03 / A SUCCESSFULL EXAMPLE OF ENDOVASCULAR AORTIC COARCTATION TREATMENT

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38 year-old male patient admitted to our out-patient clinic with headache for years. During examination, high blood pressure is detected. When the detailed examination performed, there was unusual blood pressure difference between the upper and lower extremity. Echocardiography revealed increased gradient in the descending aorta with suprasternal view and computerized angiography showed aortic coarctation below the branching of subclavian artery. For procedural imaging, radial and femoral accesses were used. Femoral vascular access was maintained with 14F sheath accompanied by preparation of closure device. The segment of coarctation was wired and then catheter was passed through the lesion. Stent was placed over the balloon-in-balloon system and positioned carefully in the coarcted segment. The stent is then implanted with the balloon and post-dilation was performed. The inguinal access site was closed via closure device properly. There was no complication.

Keywords: Aortic coarctation, aort, aortic stenting, closure device



CP-04 / A CASE OF SPONTANEOUS INTERNAL CAROTID ARTERY ANEURYSM ASSOCIATED WITH VASCULAR BEHCET DISEASE

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¹Nöroloji, SBU Antalya Eğitim Araştırma Hastanesi

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A carotid artery aneurysm associated with vascular Behçet disease is extremely rare and often difficult to treat.

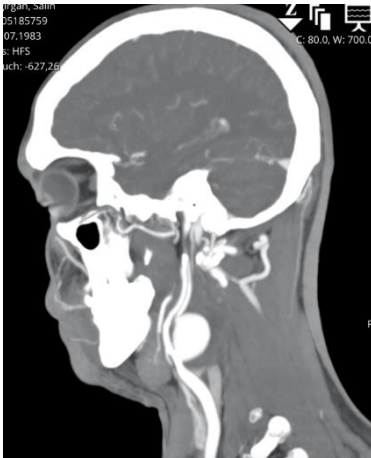
A 36-year-old man presented with hoarseness of voice and swelling and a pulsatile subcutaneous mass of the left neck. He had a history of oral ulcerations, and inflammatory skin lesions. He had undergone no cervical surgeries. He reported no fevers or chills, nor any pulmonary, renal or genitourinary symptoms.

After the diagnosis of Behçet disease radiologic examination revealed a giant left CCA aneurysm (4.5 x3.5 cm) with partial thrombosis. Because mass effects due to aneurysm vocal cord paralyse. The endovascular reconstruction of the carotid artery was selected instead of direct surgery because of skin and connective tissue disorders at the regional site. A micromesh stent (8 x10x40 mm, Casper, Terumo's MicroVention) was placed from the CCA to the ICA, covering the whole aneurysmal portion. Postoperatively, the cervical mass remarkably reduced in size, and the patient's symptoms dramatically improved. The left carotid artery was patent at 3-month follow-up.

A micromesh stent is very useful in repairing arteries with pseudoaneurysm, particularly in cases unsuitable for direct surgery with parent artery occlusion. The influence of the foreign body at the inflammatory lesion and long-term patency of covered stents should be discussed.

Keywords: Carotid artery aneurysm, Behçet disease, endovascular treatment, covered stent

patient sagittal head and neck CT angiography





CP-05 / ANTEGRADE INTERVENTION TO THE LEFT MAIN ILIAC ARTERY TOTAL OCCLUDED LESION WITH REVERSE CART METHOD USING MIRACLE-12 WIRE

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A 70-year-old male patient who was admitted to our outpatient clinic with a complaint of leg pain was hospitalized. In another hospital, an interventional procedure was performed on the left main iliac artery total occluded lesion, but was not successful. The lesion was attempted to cross the brachial artery with various wires with the support of the destination microcatheter. The back end of the 0.035 wire was also used but could not be passed. Partial transition was observed with Miracle-12 wire and it was seen to be subintimal. The lesion was passed with a 5.0 x 40 mm balloon (inflated at 15-20 atm pressure) using Miracle-12 wire according to the reverse cart method. The 9.0 X 49 mm balloon expandable stent was implanted at 10-12 atm pressure. Then, 9.0 x 19 mm balloon expandable stent was implanted into the distal area using the overlap technique. There were no complications and the procedure was considered successful.

Keywords: left main iliac artery stenosis, miracle-12 wire, reverse cart method

Figure-1

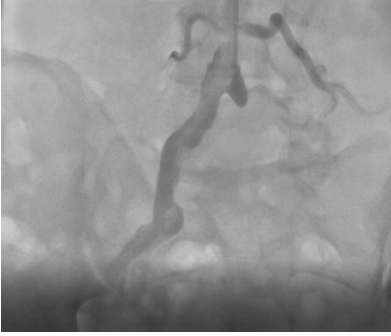


Figure-2

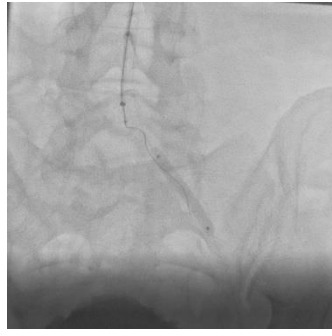
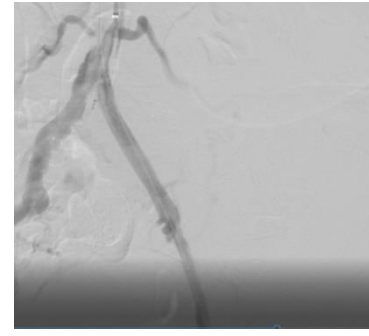


Figure-3





CP-06 / SUCCESSFULL SIMULTANEOUS REVASCULARIZATION OF THE NATIVE SFA AND THE TIBIALIS POSTERIOR ARTERY OF A PATIENT WITH A HISTORY OF REPEATED PERCUTANEOUS INTERVENTIONS FOR THE ILIOFEMORAL BYPASS GRAFT

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A 52-year-old male patient who had a history of diabetes mellitus and hypertension. The patient underwent coronary bypass graft surgery in 2012 and right iliofemoral bypass in 2014. Percutaneous intervention was performed for the total occlusion of iliofemoral bypass graft in 2015 and 2018. He was admitted to our cardiology clinic with the symptom of claudication. The peripheral angiography revealed iliofemoral bypass intra-graft stent total occlusion (Video.1). The hydrophilic wire, supported by the destination microcatheter, was advanced retrogradely through the right tibialis anterior artery and right popliteal artery after the puncture of right dorsalis pedis artery (Video.2). Total occlusion of native superficial femoral artery (SFA) was crossed retrogradely with 0.018 halberd wire and the wire advanced to the true lumen of the right iliac artery (Video.3, 4). The wire was caught by vascular snare that advanced from the left femoral artery and the system was switched to antegrade direction. Predilatations were performed with 4.0x30 mm, 5.0x80 mm, 6.0x80 mm balloons. After dilatations 7.0x80 mm, 7.0x100 mm, 8.0x60 mm self expandable stents were implanted. Postdilatations were performed with 8.0x60 mm balloon. Angiography showed thrombus formations in native SFA (Video.5). In follow-up, Acetylsalicylic acid 100 mg + Clopidogrel 75 mg + Warfarine were given for triple therapy for 1 month. At the end of 1-month triple therapy, ASA 100 mg was stopped and Warfarin + Clopidogrel were prescribed for double treatment. The patient reapplied to our outpatient clinic 5 months after the procedure with a complaint of leg pain after a trauma. Angiography showed complete occlusion of the proximal SFA. Total occlusions within the stent, was crossed with roadrunner wire by the support of navicross microcatheter. Dilatations were performed with 6.0x200 mm, 7x100 mm balloons. 8x60 mm and 8x100 mm self expandable stents were implanted for the dissection areas at the SFA. Then, total occlusion of the tibialis posterior artery, was passed with the Fielder FC wire with the support of navicross microcatheter. Dilatations were performed with 2.0x150 mm and 2.5x200 mm balloons. Blood flow of posterior tibialis artery was provided and the procedure was finished successfully. INR follow-up was uncontrolled and rivaroxaban treatment was started. Rivaroxaban+clopidogrel was given as double treatment. The patient is asymptomatic at the 4th month follow-up.

Keywords: Peripheral intervention, Iliofemoral bypass graft intervention, peripheral artery disease



CP-07 / WHAT IS THE OPTIMAL TREATMENT MODALITY FOR CAROTID ARTERY DISSECTION? MEDICAL TREATMENT OR INTERVENTIONAL TREATMENT

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INTRODUCTION: Carotid artery dissection (CAD) is a rare and poorly characterized cause of ischemic stroke. The true incidence and prevalence of CAD is unknown. A tear in the intima of the arterial wall after endothelial damage may lead to accumulate of blood in subintimal space and result in formation of the false lumen. It is difficult to establish the real incidence of dissection, because majority of cases can be asymptomatic or have minor symptoms. Here we describe a case of chronic left internal carotid artery dissection present with neck pain.

CASE REPORT: A 26-year-old male patient was referred to our clinic for essential tremor and head titubation. The patient had a history of hyperextension neck trauma and severe neck pain 1 year ago. After physical examination, Computed tomography angiography (CTA) and Magnetic resonance imaging angiography (MRA) were performed to evaluate vascular pathology, and both images revealed a severe stenosis in the left internal carotid artery (LICA). Therefore, the patient transferred to the angiography unit for carotid artery intervention. The left common carotid artery (CCA) was cannulated with a 5F Simmons catheter via the right transfemoral approach. Diagnostic angiography showed a long segment luminal stenosis between cervical and petrosal segment of LICA (Fig.1). It was observed that there was a transition from left vertebral artery to left middle cerebral artery (MCA) with posterior communicating artery (PCOM) (Fig.2), and from right MCA to bilateral anterior cerebral artery (ACA) (Fig.3). After detailed evaluation, it was concluded that the current image was carotid artery dissection. After the procedure, there was no any complication to the patient's clinical status and neurologic examination. He was discharged on the second day with aspirin 100 mg/day.

DISCUSSION: The most common presentation of carotid artery dissection is cervical pain ipsilateral to the dissection. ICA dissection presents with craniocervical pain and can be traumatic, iatrogenic, or spontaneous. The mechanism through which cervical artery dissection causes cerebral ischemia is controversial.

Although optimal treatment approach of carotid artery dissection is not clearly established in literature, medical therapy is more acceptable than interventional treatment. There are also limited data regarding the comparative efficacy of warfarin and antiplatelet therapy. Moreover, optimal duration of antiplatelet therapy or warfarin is controversial. Decision-making process may be relied on individual clinical factors, response to treatment and repeat vascular imaging. In our case, we decided to follow up with single antiplatelet therapy due to the chronic dissection.

Carotid artery dissection generally has nonspecific presentation, so patients were be evaluated in detailed and even mild symptom of patient should be taken consideration. Antiplatelet therapy can be convenient without stenting in case of chronic carotid artery dissection.

Keywords: Carotid, artery dissection, dissection treatment

Fig.1

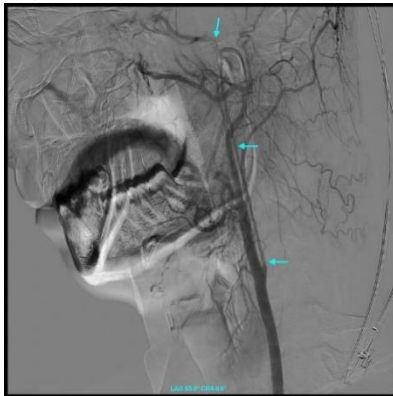
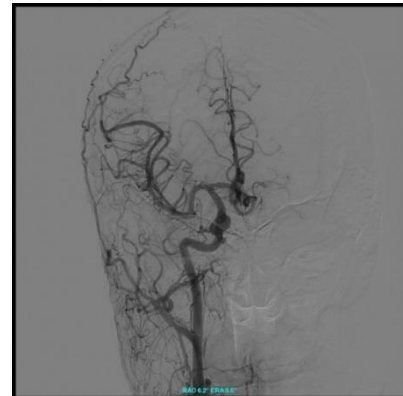


Fig.2



Fig.3





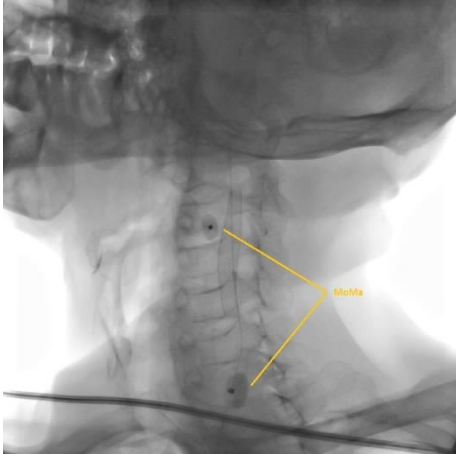
CP-08 / CAROTID ARTERY STENTING IN PATIENT WITH ISCHEMIC STROKE CAUSED BY A SOFT MOBILE THROMBUS IN THE LEFT INTERNAL CAROTID ARTERY

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Carotid revascularization may be considered for severe stenosis, but its use for symptomatic mild stenosis (<50%) with vulnerable plaque or soft mobile thrombus remains uncertain. In some studies, surgical treatment is recommended for patients with noncritical but high risk lesions in carotid arteries possibly responsible for ischemic stroke. A 65 year-old male patient admitted to our hospital with the complaint of motor aphasia. Cerebral computer tomography was unremarkable for parenchymal pathology. Electrocardiogram was also normal. Transthoracic echocardiography showed normal left ventricular systolic function, mild tricuspid regurgitation with a systolic pulmonary artery pressure of 40 mmHg. Bilateral carotid Doppler ultrasonography revealed a mobile thrombus on a dissected plaque at the left internal carotid artery (ICA) (Video 1, Video 2). Bilateral carotid angiography also demonstrated a dissected plaque and soft thrombus causing 60 to 70% stenosis at the left ICA (Video 3). Because, the presence of such a thrombus at the ICA was a very high risk for recurrent ischemic stroke, emergent carotid revascularization was planned. Therefore, the patient has been taken to the catheterization laboratory and percutaneous transluminal angioplasty to the left ICA was successfully performed by using a proximal embolic protection device (MoMa, Invatec, Roncadelle, Italy) (Figure 1). A 10x7x40 mm Protege RX tapered stent was deployed (Figure 2). Final left ICA angiogram revealed an optimal result with no complication (Video 4). Patient was discharged from the hospital with no complication under dual antiplatelet treatment.

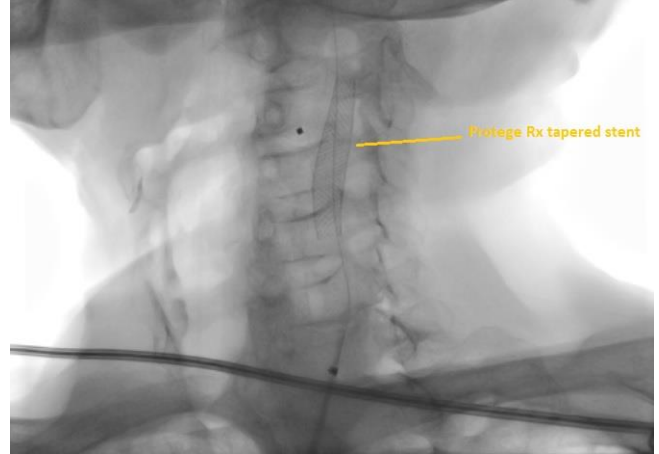
Keywords: Carotid artery stenting, soft thrombus, Doppler ultrasonography, MoMa proximal embolic protection

Figure 1



Proximal embolic protection device (MoMa system)

Figure 2



Successfully deployed Protege RX tapered stent



CP-09 / TREATMENT STRATEGIES IN CERVICAL ARTERY DISSECTIONS AS THE CAUSE OF ACUTE ISCHEMIC STROKE; AD HOC, POSTPONED REVASCULARIZATION OR CONSERVATIVE APPROACHES? REPORT OF TWO CASES AND REVIEW OF THE LITERATURE

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Although patients with extracranial carotid artery occlusion with intracranial occlusion (tandem occlusion), dissection related strokes and posterior circulation strokes were unfavourable to thrombolysis, they almost excluded from the large studies. We discussed one patient presenting with spontaneous internal carotid artery dissection accompanied by tandem occlusion and one with spontaneous vertebral artery dissection accompanied by basilar occlusion as the cause of acute ischemic stroke.

Keywords: Dissection, Ischemic stroke, Tandem occlusion, Posterior circulation, Endovascular approaches

Figure 1

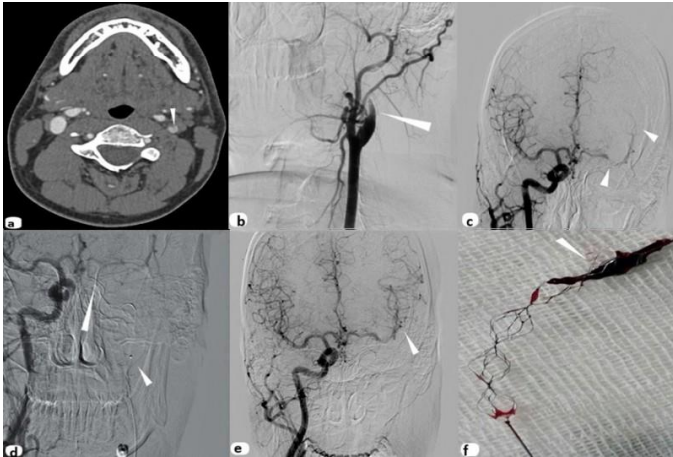


Figure 1: Pre (a,b,c,) and post-thrombectomy (d,e,f) views from the first case. (a) Enhanced cerebral CT showing dissection of left ICA, (b) showing double lumen and string like appearance of left ICA via DSA, (c) distal M2 and proximal M3 lesions with high burden thrombus, (d) 0.014 inch microwire (Traxcess, MicroVention, TERUMO) was advanced via 0.027 inch microcatheter (Headway 27) with the aid of contralateral contrast injection, (e) contralateral contrast injection showed successful modified thrombolysis in cerebral infarction (TICI) score "TICI 2b", (f) high burden thrombus over the Solitaire Platinum stentriever (Medtronic).



Figure2

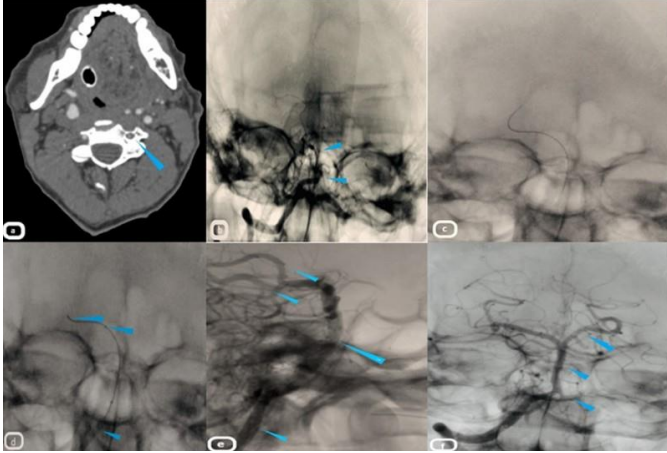


Figure 2: Pre (a,b,c,) and post-thrombectomy (d,e,f) views from the second case. (a) Enhanced cerebral CT showing left vertebral artery and dissection fleb vaguely, (b) showing occluded proximal segments of left vertebral and basilar artery via DSA, (c) 0.014 inch microwire (Traxcess, MicroVention, TERUMO) was advanced throughout the right vertebral artery, (d) 0.027 inch microcatheter (Headway 27) was inserted throughout the distal access catheter, Sophia 115 cm (MicroVention, TERUMO), over the microwire, (e) lateral view of contrast injection from right vertebral artery showing recanalization of posterior cerebral, superior cerebellar and basilar artery and occluded ostium of left vertebral artery, respectively, (f) anteroposterior view of contrast injection from right vertebral artery showing recanalization of posterior cerebral and basilar artery and occluded ostium of left vertebral artery, respectively,

Figure3

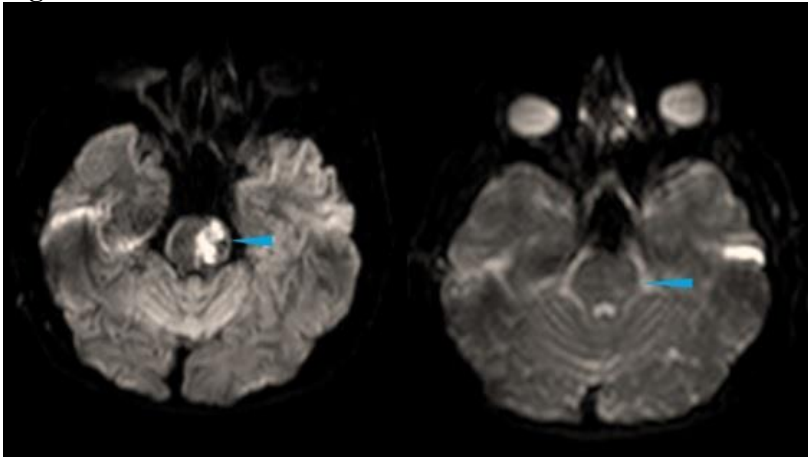


Figure 3: Magnetic resonance imagings of second case showing almost complete resolution of ischemic changes at pontine level.



CP-10 / CATHETER TIP FRACTURES DURING CRANIAL ARTERY INTERVENTIONS: BALLOON JAILED EXTRAVASATION METHOD

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Intracerebral and extracerebral interventions has been evolved during last two decades. Newer-generation devices and techniques like aspiration catheters and/or stent retrievers ensure higher success rates than pharmacological thrombolysis. However, complication rate varies among centers and operator skill. It is important to adequate diagnosis and treatment. Patient anatomy is important to design procedure steps and devices. Tortuosity, type 3 aortic arch, aortic calcification and plaque burden may complicate device advancement and necessitate much more attention. Hydrophilic catheters like Simmons, Headhunter, Cobra, Motarjeme have been used for selective engagement and wire exchange (Terumo to Amplatz/Lunderquist/Back-up Meier).

Simmons catheter is of importance gaining access into the contralateral carotid arteries especially in tortuous anatomy. Although catheter fracture is an uncommon complication during cerebral angiography, may lead to failure of procedure, clot propagation and stroke progression. We reported two cases of catheter breakage, one was during elective carotis angiography and the other one is during emergency stroke intervention.

Keywords: supraaortic interventions, hydrophilic catheter fracture, snaring, balloon jailed

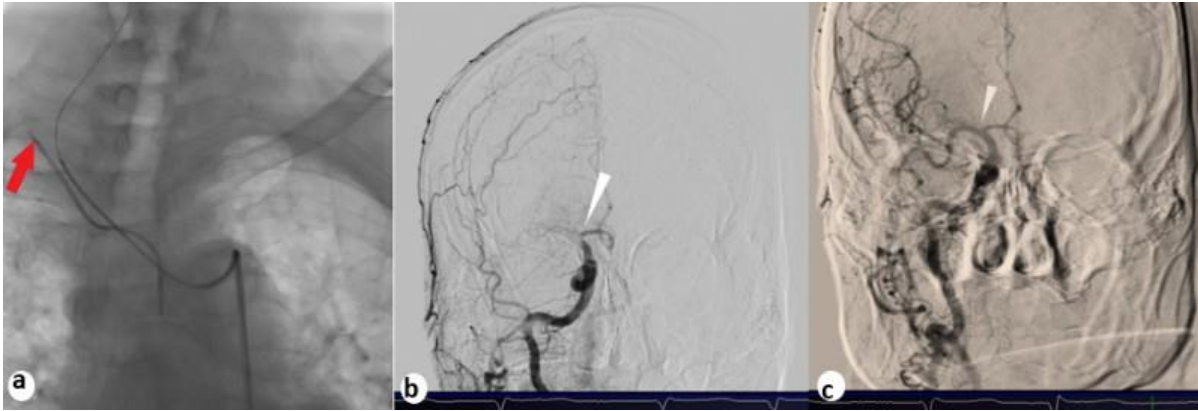
Figure 1



(a) Headhunter/100 cm (Terumo) catheter was advanced over the 0.038" / 180 cm hydrophilic guidewire (TERUMO GLIDEWIRE) (white curve line). Under the fluoroscopy, breakage of Headhunter/100 cm (Terumo) catheter was noticed (black arrowheads), (b) remaining part of catheter had been moved throughout the blood flow toward the distal aortic bifurcation and caught by the snare (One Snare, MERITMEDICAL) (white arrowhead), however, (c) splitted while pulling back into the sheathless and small piece flowed into the right profunda artery, and the bigger one was into the superficial artery at the level of bifurcation (white arrowheads).

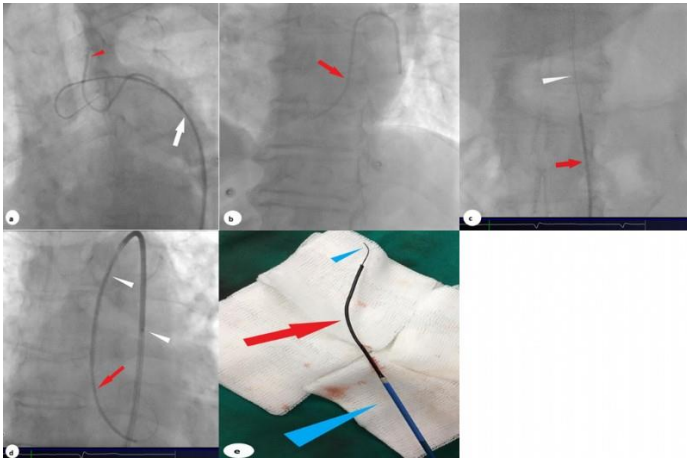


Figure 2



(a) While advancing the 0.038" / 180 cm hydrophilic guidewire (TERUMO GLIDEWIRE), SIM2 catheter was broken between the levels of right subclavian artery and arcus aorta (red arrow), (b) we gave the priority of revascularization of acute T occlusion (white arrowhead) rather than the retrieval of broken part of SIM catheter, (c) angiographic run revealed TIC1 2b flow (white arrowhead).

Figure 3



(a) Pulling back and dropped the broken part of the simmons catheter from the supraaortic arch by pigtail catheter, (b) the tip of simmons catheter directed towards the descending aorta and right iliac artery (red arrow), (c) pass into the breakaged part of catheter (red arrow) by V-18 guidewire (Boston Scientific) (white arrowhead), (d) peripheral balloon (3.0x150 mm, simpass ENDO18) was then advanced over the guidewire, encompassing both the broken part of catheter and SheathLess catheter, (e) externalized parts: guidewire (small arrowhead), fractured part of simmons catheter (red arrow), sheathless catheter (big blue arrowhead)



CP-11 / TRAUMATIC SUBCLAVIAN ARTERIAL RUPTURE

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Traumatic subclavian arterial rupture is an uncommon complication of blunt chest trauma. The subclavian artery is protected by subclavius muscle, the clavicle, the first rib, and the deep cervical fascia. Clavicular Fractures were cited as the cause of 50% of traumatic subclavian artery injuries. Arterial rupture usually causes life-threatening haemorrhages, and must be carefully ruled out by physical examination as well as diagnostic imaging. Physical examination of the upper limb must focus on skin color, temperature, sensation, hand motility well as radial pulse. Contrast-CT represents a key diagnostic exam, while arteriography offers both a diagnostic a therapeutic approach. Open surgery represents the classical management of subclavian rupture, but it is associated with high morbidity mostly because the need of extensive incisions, which require lengthy healing and rehabilitation. In recent years endovascular stent grafting, thank to technical evolution and growing operators' experience, has become an attractive therapeutic approach to such kind of injuries, provided with less invasiveness and morbidity. We report a case of traumatic subclavian arterial rupture after blunt chest trauma treated by endovascular stent grafting. A 82-year old woman had a fall while walking on the road on her arm. She hasn't gone to the hospital. But after 1 month she had a growing pain of the upper extremity. She has come to our hospital when her extremity was cold and cyanotic. We just applied surgical thrombectomy. After thrombectomy distal pulses was palpable. But one day after we examined subcutaneous hematoma the posterior of the shoulder that extending to waist.

The right femoral artery was accessed cannulate and the left subclavian artery minor branch selective arteriography showed active bleeding. Subcutaneous skin piece was advanced in antegrade fashion. But it didn't work. And balloon piece was put in the lesion. Next angiograms showed no active bleeding. After the procedure, haemoglobin was checked again, and its value was stable.

In this case the lesion was not bleeding so up we clean the thrombus material. And the balloon piece was buffered the lesion and the bleeding was stopped.

Keywords: Trauma, Subclavian Arter, Endovascular

Figure 1



Figure 2

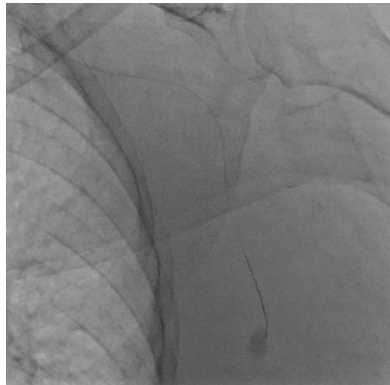
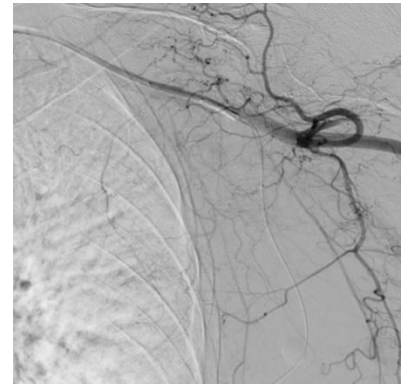


Figure 3





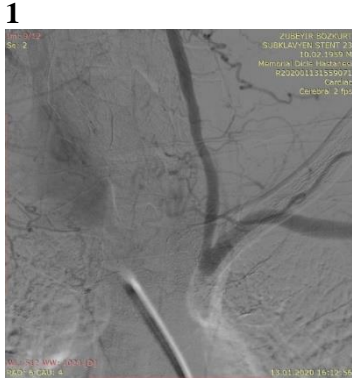
CP-12 / SUCCESSFUL ANGIOPLASTY OF A COMPLICATED CASE OF CHRONIC TOTAL OCCLUDED SUBCLAVIAN ARTERY IN PATIENT WITH SUBKLAVIAN STEAL SYNDROME

Fehmi Kaçmaz

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Sixty- years-old man addmitted to hospital with complaint of dizziness and aching of left arm especially durin left arm exercise for 2 years. Coronary angiography and peripheral angiography were performed and chronic total occlusion of left subclavian artery was detected. Patient was referred to our clinic to perform angioplasty. percutaneous angioplasti was planned and firstly 7F sheath was introduced to right femoral artery and 6F sheath into left radial artery. 7F right jutkins guiding catheter was advanced to left subclavian artery. Firstly we tried to cross lesion antegradely but failed to cross. Then we tried to crost CTO segment by various guidewire with support catheheter including all size(0.014, 0.018, 0.035 inch.) but we failed again. Finally we succeed tto cross lesion with Pilot 200 supported by 0.018 support catheter. We inflated 3.0x20 balloon and than 7.0x60 mm balloon retrogradely. Then we changed our strategy to angtegrade approach to place big size stent and crossed lesion with 260 cm 0.035 hyrophilic guidewire. we advanced stent over the wire and tried to cross lesion however we failed. so we planned to dilated lesion with 7.0x60 mm balloon agian before stent placement. So we remove stent back but stent stripped over the ballloon. A half of stent was in the lesion and rmain was failil in asendan aorta. We tried to advanved ballloon into stent but failed and all system came back including our hydrophilic guidewire. Stent was captured by goosnic snare and externalized via femoral artery. Then we tried to cross lesion antegradely but failed so we decided to place stent retrogradely. left raidanl sheath was changed with 7F sheath and Lesson was crossed with 260 cm 0.035 inch guidewire and 7.0x60 mm dilated with balloon then 9.0x27 mm stent was placed and proksimal part of stent was dilated with 10x40 mm ballloon. On final angiogram we we obtained good result and procedure was ended successfully.

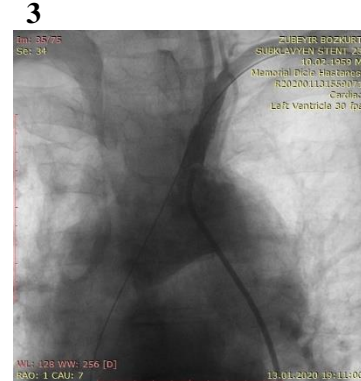
Keywords: dizziness, CTO, subklavian artery, angioplasty



Subclavian steal



Stent stripping



Stent implantation and final result



CP-13 / RETROGRADE ENDOVASCULAR TREATMENT OF LONG SUBCLAVIAN OCCLUSION CAUSING SUBCLAVIAN STEAL SYNDROME IN A YOUNG PATIENT: A CASE REPORT

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INTRODUCTION: Subclavian steal syndrome is a rare syndrome due to the obstruction of the subclavian artery, with symptoms of vertebrobasilar system failure, especially with the movement of the arm. In recent years, endovascular treatment has emerged as a priority option.

CASE: A 57-year-old female patient presented with dizziness at the neurology clinic. Carotid vertebral artery doppler ultrasonography and computed tomography (CT) angiography showed occlusion at the proximal part of the left subclavian artery and left internal carotid artery and in addition cranio-caudal flow was found in the left vertebral artery. The patient was referred to our clinic for endovascular treatment. It was learned from her medical history that she had hypertension, hyperlipidemia and she was smoking 1 pack/day. She had been receiving direct oral anticoagulant (apixaban 5 mg 2x1) for 8 months because of chronic deep vein thrombosis and she had right coronary stent implantation 3 months ago and she had been receiving dual antiplatelets. On physical examination, heart rate was 65 bpm, blood pressure in the right arm was 130/85 mmHg, and pulse in the left brachial artery was not palpable. ECG was in sinus rhythm.

The patient was initially evaluated in the carotid council and left carotid stenosis was stented. After 3 weeks, it was decided to open the subclavian occlusion.

The patient was taken to the catheter lab and a 6F sheath was placed to right femoral artery than a pigtail catheter placed in to the aortic arch. A 7F sheath was inserted into the left brachial artery with the help of doppler ultrasound, and a 6f JR4 catheter was inserted distally to the subclavian artery occlusion and bilaterally angiography was performed simultaneously (Figure 1). The subclavian artery was totally occluded approximately 4 cm in length. Firstly, the distal tip has tried to penetrate with 0.018 hydrophilic coated guidewire (v18 boston scientific) with the support of 5F microcatheter. Upon the failure of this attempt the lesion was successfully passed through with the stiff 0.035 hydrophilic wire (Fig. 2). After the microcatheter was advanced to the aorta and checked that we were in the real lumen, it was replaced with 0.035 stiff wire (Amplatz Super stiff, Boston Scientific) (Figure 3,4). First, PTA was performed with 8x120mm balloon (Simpass Endo) at 10 atm. pressure (Figure 5) Then 9x57mm balloon expandable stent was implanted in 14 atm pressure and optimal opening was achieved (Figure 6,7). Brachial artery was closed with vascular closure device (Angio-Seal VIP) after the procedure. In the follow-up visits dizziness of the patient was found to be improved.

CONCLUSION: Endovascular treatment, which provides important advantages with developing material technology, has increased its use in the treatment of subclavian artery occlusions. We wanted to present retrograde revascularization of long subclavian artery occlusion in a young patient in our clinic.

Keywords: Steal syndrom, subclavian, occlusion, endovascular treatment

Figure 1



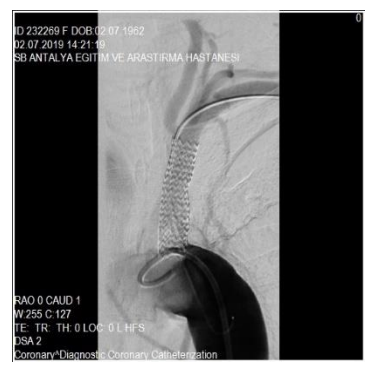
Subclavian artery proximal occlusion

Figure 2



Penetration of the lesion

Figure 3



Post stenting result



CP-14 / GUIDELINER CATHETER APPLICATION IN SEVERE, SEQUENTIAL AND SYMPTOMATIC CAROTID ARTERY STENOSIS

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Harran University Faculty Of Medicine, Cardiology, Sanlıurfa*

INTRODUCTION: The safety and efficacy of carotid artery stenting (CAS) have been demonstrated in the treatment of atherosclerotic carotid artery disease (CAD). CAS has even recently become more popular than carotid endarterectomy (CEA) in the treatment of CAD owing to newly developed techniques, devices and special wires. Here we present a case of stent implantation with using guideliner in symptomatic carotid artery disease with severe and sequential stenosis.

CASE REPORT: A 78-year-old male patient with a diagnosis of hypertension and diabetes mellitus was referred to our clinic for CAS due to a cerebrovascular event 1 month ago. Neurological examination did not show any significant findings. Computed tomography (CT) demonstrated a 90% stenosis in the left internal carotid artery (LICA). Patient was transferred to the angiography unit for CAS. Diagnostic angiography showed consecutive 3 severe stenosis in LICA (video 1). After that, council was performed with cardiology, cardiovascular surgery and neurology, and decided to perform CAS with high risk. After 5000 units of heparin was made, the left common carotid artery was cannulated with a 5F Simmons catheter via the transradial approach. The external carotid artery (ECA) was wired with a 0.035 hydrophilic wire, and the 5F Simmons catheter was advanced in there. The hydrophilic wire was exchanged with super stiff wire and guiding catheter was placed in CCA. Lesions were passed with 0.014 wire. At first, it was decided to implant a stent to the lesion in the proximal ICA, but the stent could not be advanced because the wire did not provide adequate support. Whereupon the wire was changed to with extra support wire by the help of finecross microcatheter. Then a 8×40 mm WallStent was implanted into the proximal ICA lesion (video 2). Post-dilatation was performed with a 5x20 mm balloon due to residual stenosis (video 3). Then, a 3.0x19 mm coronary stent was attempted to advance to the lesion in the distal ICA, but could not. After that 2.5x20 mm coronary balloon was inflated in the distal lesion and the guideliner was moved to the near distal lesion (video 4). And a 3.0x19 mm coronary stent was implanted in distal and a 3.5x20 mm stent was implanted in the mid (video 5, 6). After that final image taken (video 7). After the procedure, the patient's clinical status and neurologic examination were normal. He was discharged on the second day. The patient followed as asymptomatic and without any complication at the 3-month follow-up.

DISCUSSION: CAS is a relatively new treatment option. Especially in high-risk patients for surgery and stenosis which extends to intracranial segment, CAS is more preferred than CEA. In the case of tortuous vessel and widespread stenotic disease, it may be difficult to transport the stents to the lesion area. In such cases, assistant materials may be needed. The use of guideliner in stenting these sequential and challenging lesions may facilitate the procedure.

Keywords: carotid artery disease, carotid artery stenting, guideliner



CP-15 / NEAR-TOTAL CAROTID ARTERY INTERVENTION IN A PATIENT WITH HEMORRHAGIC STROKE HISTORY

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76 year-old male patient with a history of hypertension, diabetes mellitus and coronary artery disease admitted to our clinic with a history of cerebellar hemorrhagic stroke 1 year ago. The work-up for stroke revealed right-sided lesion which causes 90-95% occlusion in internal carotid artery in computerized tomographic angiography. The patient consulted to our department of neurology for possible intervention to carotid artery. First, coronary angiography and carotid angiography were performed and there was no significant lesion in the coronary arteries but there was 95% near total occlusion in the right-sided internal carotid artery with decreased cranial flow. After initializing the distal protection device to internal carotid artery, balloon dilation was performed with 3.5*20 mm semi-compliant balloon. After pre-dilation, 7-10*40 mm self-expandable stent was implanted to the lesion and 6*20 mm balloon was performed for post-dilation inside of the stent. Control angiography revealed no visible complication after the procedure.

Keywords: Carotid stent, Carotid intervention, Internal carotid artery, Stroke, Subtotal occlusion



CP-16 / ANTEGRADE INTERVENTION TO THE LEFT SUBCLAVIAN TOTAL OCCLUDED LESION WITH MIRACLE-12 WIRE

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Bolu Abant İzzet Baysal University Hospital

INTRODUCTION: Subclavian artery occlusion is a pathology that often develops on the background of atherosclerosis. With the increasing use of endovascular interventions in treatment, surgery has become less preferred. In these patients, subclavian steal syndrome can be seen and different symptoms can be observed accordingly. We aimed to treat percutaneous intervention in a patient with a complaint of dizziness and left subclavian artery stenosis.

CASE PRESENTATION: CT angiography was performed to a 66-year-old woman with hypertension and diabetes mellitus due to dizziness and shaking and suspected stenosis was reported in the left subclavian artery. Invasive angiography was performed and total occlusion was observed in the left subclavian artery. The lesion was tried to pass through the brachial artery by retrograde intervention, but subintimal passage was observed. Therefore, it was decided to continue on the antegrade route and the lesion was passed with Miracle-12 wire. 8.0 x 60 mm self expandable stent was implanted into the lesion area. Postdilatation was performed with a 7.0 x 40 mm balloon. There were no complications and the procedure was considered successful.

CONCLUSION: Coronary wires can be beneficial in peripheral interventions and increase the success of the procedure.

Keywords: antegrade intervention, coronary wire, subclavian artery stenosis

Figure-1



Image of proximal stenosis before the intervention

Figure-2

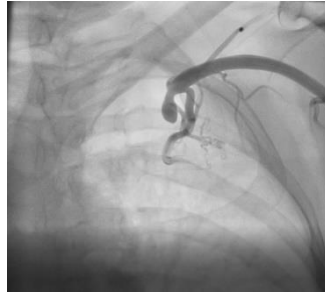


Image of distal stenosis before the intervention

Figure-3

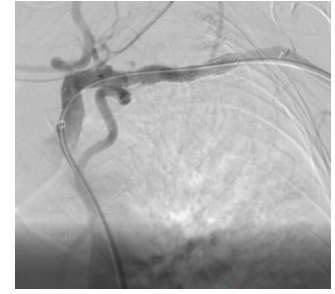


Image after stent implantation



CP-17 / PERCUTANEOUS TREATMENT OF LEFT SUBCLAVIAN ARTERY STENOSIS IN A PATIENT WITH CORONARY-SUBCLAVIAN STEAL SYNDROME WHO UNDERWENT CORONARY ARTERY BYPASS WITH LEFT RADIAL ARTERY

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A 75-year-old male patient who was underwent coronary artery bypass with left radial artery was admitted to our clinic with complaints of pain in the left arm and angina pectoris caused by the left arm movement, and intermittent dizziness. Two years ago, the patient underwent coronary artery angiography (CAG) and it was found that the coronary bypass grafts were patent. Physical examination revealed the pulses on the left radial artery were not palpable, the pulses on the left ulnar artery were less palpable than right one. The upper limb blood pressure was measured 40-50 mmHg more on the right than on the left. Duplex ultrasonography showed stenosis in the proximal left subclavian artery and reverse flow in the left vertebral artery. Peripheral aortography confirmed occlusion of the left subclavian artery (Figure 1). We considered coronary-subclavian steal syndrome and decided to perform endovascular intervention. Decision of percutaneous transluminal angioplasty and stenting was made for this lesion according to the ESC Peripheral Arterial Disease guidelines (class 2A). Percutaneous transfemoral and transbrachial approaches were used for vascular access. Sheathless catheter was placed over the brachial artery and pigtail catheter was placed over the 6F femoral sheath. The left subclavian artery obstruction was intraluminal crossed with 0,035" Poseidon peripheral guidewire with 0.035" Trailblazer catheter support over the brachial artery. After the lesion was predilated with a 5.0x40 mm balloon, 8.0x39 mm balloon-expandable stent was successfully implanted (Figure 2). Final angiogram showed the complete revascularization of the left subclavian artery (Figure 3). In this case, we presented a successful subclavian artery intervention in a patient with coronary-subclavian steal syndrome, whose radial artery was removed and palmar arc is fed only with the ulnar artery.

Keywords: Coronary artery bypass, coronary-subclavian steal syndrome, radial graft, stent, subclavian artery stenosis

Figure 1.



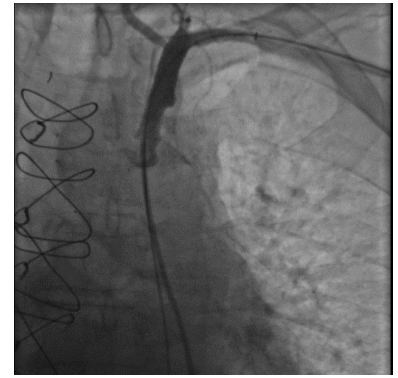
Image of proximal left subclavian stenosis in simultaneous anterograde and retrograde peripheral angiography.

Figure 2.



Implantation of the balloon-expandable stent (8x39 mm).

Figure 3.



Angiographic image after complete revascularization.



CP-18 / TOTAL SFA'YA TOTAL PTA DAN RETROGRAD BAŞARI GİRİŞİM

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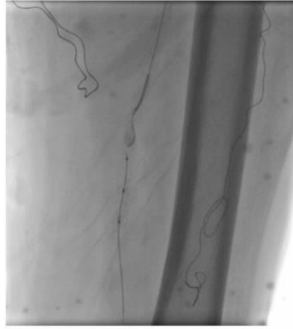
76 yaşında erkek hasta kky cabg tanıları ile takipli son bir yıldır 200 metre yürümekle sol bacağına ağrı şikayeti mevcut. Medikal tedavi başlanmış, sol ayağında yara çıkması üzerine kliniğimize başvurdu. Hastaya çekilen periferik bt anjiosunda sol sfa total sol pta total saptadı. Bunun üzerine hasta katater laboratuvarına alındı. Sağ sfa shilt yerleştirildi. Sağ katater ve poseidon tel ile sol sfa seviyesine ulaşıldı. Amplatz tel desteği ile kısa shiltles yerleştirildi. 0,035 mikrokater ve 0,035 hidrofilik tel ile lezyon geçilemedi. Sol pta shilt yerleştirildi. 0,014 mikrokater boston v14 tel ile pta total lezyon geçildi. SFA total lezyon distal tele ulaşıldı. 0,018 mikrokater ve 0,018 boston v18 hidrofilik tel ile lezyon ipsilateral retrograd olarak geçildi. Sonrasında snare ile yakalanan tel sağ femoral shiltten externe edildi. Sonrasında total femoral lezyona 6.0 x 100 ilaç kaplı balon yapıldı. sonrasında total pta lezyona 3.0x 150 balon ile predilate edildi. Sonrasında sol pta total lezyona 3.5x150 ilaç kaplı balon uygulandı. optimal sonuç sağlandı.

Keywords: PTA, retrograd, sfa, total

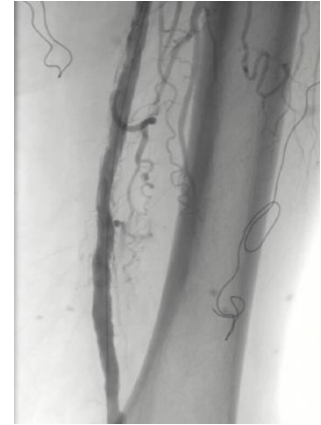
1) PTA Distal Total



2) Antegrad Retrograd Yaklaşım



3) SFA Açık





CP-20 / GÜDÜKSÜZ SAĞ ANA İLİAC TOTAL LEZYON

Yakup Çetinkaya

Ömer Halis Demir Üniversitesi Eğitim ve Araştırma Hastanesi, Kardiyoloji, Niğde, Türkiye

53 yaşında KADIN hasta HT+Sigara(günde bir paket).Hastanın eforla göğüs ağrısı ve 100 metre yürümekle kladikasyo tarifliyor Glu:114 kreatin:0,9 Hb 12.7 LDL:165 mg/dl diğer labaratuvar bulgular normal.

FM: Kardiyak muayane bulguları normal.Efor testi pozitif olduğu için hastaya koroner anjiyografi kararı alınmış.KAG esnasında sağ femoral arter total tıkalı saptanmış.KAG sol femoral arterden yapılmış.Hasta tarafımıza periferik müdahale için yönlendirildi.

Keywords: total sağ iliac,mikrokater



CP-21 / SUCCESSFULLY TREATED RENAL ARTERY STENOSIS IN A PATIENT WITH DIABETES INSIPIDUS

Mehdi Onaç, Ünal Güntekin

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A 72-year-old man was referred for coronary angiography and renal angiography because of bilateral renal artery stenosis detected by renal doppler ultrasonography after acute pulmonary edema. This patient had uncontrolled systemic arterial hypertension for 15 years and had been treated with β -blockers, diuretic and angiotensin receptor-blocker and calcium channel blockers. Despite this therapy, on physical examination, his blood pressure was 175/110 mm Hg with no difference between the two arms. He had history of diabetes insipidus. Laboratory test results were blood urea nitrogen (BUN) 32 mg/dl, creatine 1.47 mg/dl, creatine clearance was calculated at 46 ml/min, potassium 4 mEq/l, sodium 140 mEq/l and chloride 103 mEq/l. His heart rate was 72 bpm. Transthoracic echocardiographic results revealed left ventricular hypertrophy, normal systolic (left ventricular ejection fraction 62%) and grade 1 diastolic function, normal region wall motion abnormality, mild mitral regurgitation and minimal pericardial effusion. Coronary angiography was performed and it documented 40% narrowing at the left circumflex coronary artery and %50 narrowing at the left descending artery.(Figure 1) Since the patient had resistant hypertension, renal angiography was performed. His renal angiogram showed %90 stenosis of the left renal renal artery, %90 stenosis of the right renal artery.(Figure 2)

First, a bolus of 7500 IU heparin was administered and soft-tipped renal guide catheters were used to engage the left renal arterial ostium. The lesion was crossed with the coronary guidewire (diameter, 0.014") and predilation was performed using a balloon catheter (2.0×9 mm) (Figure 3). Then a renal stent (6.0×15 mm) was implanted at 12 atm without residual stenosis (Figure 4)

As a result, renal angioplasty and stent placement were achieved without a complication. It was decided to perform right renal artery intervention at the following month. After the procedure, the femoral access was manually closed with sutures at the catheterisation laboratory, and the patient was sent to the coronary care unit for close monitoring. On the first day after the procedure, Blood pressure of the patient dropped dramatically to a normal range after renal angioplasty and stent placement: around 110–120 mm Hg of systolic pressure and 70–80 mm Hg of diastolic pressure. Laboratory test results (after the procedure) were blood urea nitrogen (BUN) 20 mg/dl, creatine 1.1 mg/dl, creatine clearance was calculated at 63 ml/min, potassium 3,8 mEq/l, sodium 141 mEq/l and chloride 102 mEq/l. At the end of the first week, the patient's blood pressure was within normal limits on the same antihypertensive regimen.

Keywords: diabetes insipidus, renal artery stenosis, renal angioplasty

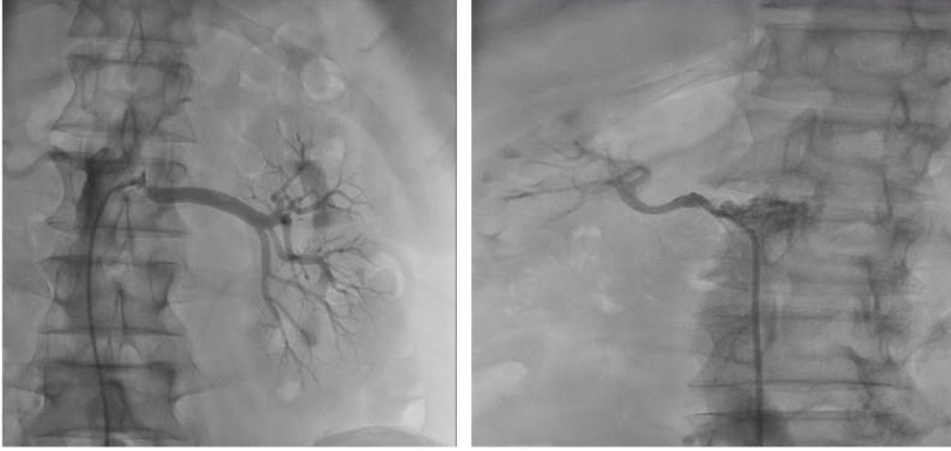
Figure 1



Coronary angiography

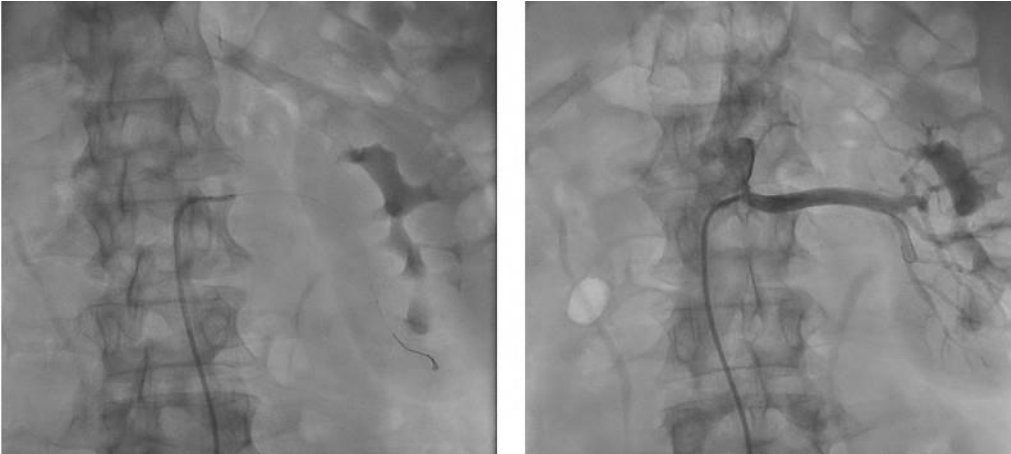


Figure 2



Renal angiography

Figure 3 and Figure 4



balloon catheter and renal stent



CP-22 / BILATERAL RENAL ARTERY STENOSIS IN A PATIENT WITH RESISTANT HYPERTENSION AND CHRONIC RENAL FAILURE

Yılmaz Güneş, Emrah Erdal
Bolu Abant İzzet Baysal University Hospital

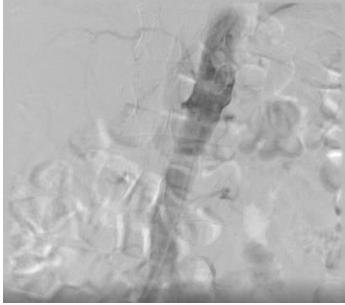
INTRODUCTION: Atherosclerotic renal artery disease (RAD) is the most common cause of renovascular hypertension. The prevalence of renal artery stenosis (RAS) can vary from 1 to 5% in unselected populations with hypertension, and up to 15–40% in populations with other manifestations of atherosclerosis, such as peripheral vascular disease (PVD) and coronary artery disease (CAD).

CASE PRESENTATION: A 56-year-old male patient was hospitalized for resistant hypertension. Intravenous perlinganitis infusion was started. The patient also had chronic kidney failure (Glomerular Filtration Rate: % 31). Bilateral renal artery stenosis was suspected in renal doppler ultrasonographic imaging. Therefore, the patient underwent renal angiography. The right and left renal arteries were totally occluded. Stump was observed in the right renal artery, but no stump in the left renal artery. Cardiology and nephrology clinical council was held. Percutaneous intervention to the right renal artery was decided (taking the risk of developing contrast nephropathy). The procedure was performed on the left brachial artery with a 7F JR guiding catheter. Initially, the lesion was tried to cross with PT grafix wire but it could not be passed because it was very hard. Then the lesion was passed with Miracle-12 wire. Dilatation was performed with a 2.0 X 20 mm balloon and it was seen to be in the real lumen. Then, predilatation was performed with a 4.0 x 15 mm NC balloon. Then, 8.0 X 29 mm Omnilink stent was implanted at 11 atm pressure. There were no complications and the procedure was considered successful. In the follow-up of the patient two months later, her blood pressure was regulated and her kidney function improved compared to the past.

DISCUSSION: Renal artery stenosis is often asymptomatic. Sometimes it causes hypertension and chronic kidney failure. There are controversial results in the literature with the treatment of renal artery stenosis. In patients with RAS, hypertension and kidney failure should primarily be treated medically. Percutaneous intervention may be particularly useful in patients with progressive impairment of kidney function and hypertension.

Keywords: bilateral renal artery stenosis, chronic kidney failure, resistant hypertension

Figure-1



Bilateral renal artery stenosis on DSA images.

Figure-2

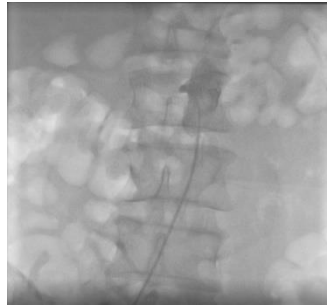


Image of right renal artery stenosis before the intervention

Figure-3

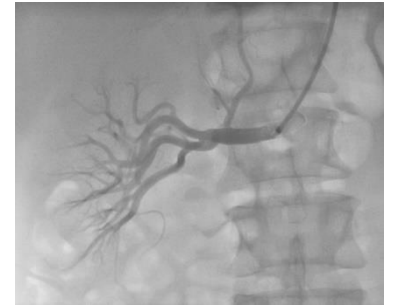


Image after stent implantation



CP-23 / A RARE COMPLICATION DUE TO PROGLIDE CLOSURE DEVICE IN A PATIENT UNDERGOING TRANSCATHETER AORTIC VALVE REPLACEMENT: TOTAL OCCLUSION OF THE AORTA ILIACA EXTERNA

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A 77-year-old female patient admitted to the outpatient clinic with increased shortness of breath for 1 month. The patient had chronic kidney disease, hypertension, diabetes mellitus, and coronary artery bypass operation. On the physical examination of the patient, systolic blood pressure was 140/85 mmHg. In addition, it was 3/6 systolic murmur at the aortic focus and bilateral crepitanic rales in the basal of the lung. On electrocardiography, the basic rhythm was sinus and ST segment depression was observed in the lateral leads. Echocardiography revealed ejection fraction 60%, left ventricular hypertrophic (14mm) and aortic valve area 0.7 cm² (42/76 mmHg). The coronary angiography showed no flow limiting lesions. The patient was referred to the cardiology and cardiovascular surgery council in terms of aortic valve stenosis, and the transcatheter aortic valve implantation (TAVI) was decided by the cardiac team due to the advanced age and high surgical risk (Euroscore2: 18% Sts: 13). The patient underwent cardiac CT angiography and lower extremity peripheral CT angiography before the procedure. Femoral artery diameters were enough for peripheral intervention. For TAVI procedure, 6F sheath was placed in the left femoral artery and 14F sheath was placed in the right femoral artery. After successful TAVI procedure, vascular closure was attempted with two proglide closure devices for the femoral artery access site, but was used in the third proglide due to in excessive of bleeding. Because the bleeding could not be taken control, the fourth proglid was placed and the bleeding stopped. Then in the control shots taken, it was observed that the right iliaca externa was totally occluded (Figure-1). For this reason, from the left femoral artery was approached and the occluded area was tried to pass with 0.014 soft wire, but it was not successful. A new sheath was inserted through the right superficial femoral artery (SFA) and an occluded area was attempted to be crossed with soft wire and BMW wire. The total lesion passed by Fielder XT wire. Then it was replaced with 0.035 wire. The lesion area was dilated with a 5.0 x 60 mm balloon (Figure-2) and TIMI 3 flows were provided.

As a result, a significant portion of the complications encountered in the TAVR procedure are related to the peripheral access site. If the patient experiences hemodynamic deleterious during the procedure or the patient's complaints related to peripheral artery disease begin, it should be kept in mind peripheral complications. It has been reported that the use of vascular closure devices (proglide etc.) significantly reduces vascular complications. However, as in our case, the placement of more than one closure device may lead to stenosis and occluded in the entrance point. For this reason, the selection of the proper vascular access site and use of the closure devices are of great importance in terms of reducing complications.

Keywords: transcatheter aortic valve replacement, using closure devices, occlusion of iliaca externa

Figure-1:Right iliaca externa was totally occluded



Figure-2:The lesion area was dilated with balloon





CP-24 / AMPULTASYON PLANLI HASTAYA OPERASYON ÖNCESİ REVERSE CART BAŞARILI İLİAK GİRİŞİM

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67 yaşında bayan hasta alzaimer demans sebebi ile takipli 8 aydır yürümekle sol ayağında ağrı şikayeti olan hasta 3 hafta önce ani gelişen sol ayağında soğukluk solukluk ağrı şikayeti ile gittiği dış merkezde hastaya MR çekilmiş MR ında sol iliak tıkalı saptanmış hasta yatırılarak medikal tedavi verilmiş sonrasında hastaya ampultasyon planlanmış. Hasta mevcut şikayetler ile kliniğimize başvurdu. Ortopedi ve KVC ile konsey yapıldı. Hastaya girişim sonrasında ampultasyon planlandı. Sol eksternal iliak tam tıkanıklığa müdahale için kontralateral yaklaşım ile sağ femoral artere ponksiyon yapıp kılıf yerleştirildi. 0,0035 hidrofilik tel ve 6f sağ diyagnostik katater ile sol iliak artere dönüldü. 0,018 boston v18 tel bırakılıp 8f gl ile teleskopik olarak ilerleme sağlanıp. amplatz tel bırakıldı. Kısa klavuz kılıf gönderilip pozisyonlandırıldı.0,018 mikrokatater ve gladius tel ile antegrad penetre edilse de lümene düşülemedi. Cart yapılmasına karar verildi. Sol femoral artere kılıf yerleştirildi. 0,035 destek katateri ve 0,035 hidrofilk tel ile subintimal ilerleme sağlandı.5,0*80 mm balon ile cart yapıldı. Takiben headhunter desteği ile 0,018 gladius tel ile antegrad yoldan lümene düşüldüğü tip enjeksiyon yapıp teyit edildi sonrasında uzun floppy yerleştirilip snare ile sol sfa dan eksterne edildi. 6,0*150mm balon ile predilatasyon yapıp 8,0*60 ve 9,0*40 mm stentler implante edildi. 8,0*40 mm balon ile postdilatasyon yapıldı. opimal sonuca ulaşıldı. Hastanın medikal tedavisi düzenlenerek ortopedi sevisine devir edildi. Girişimden 3 gün sonra hastaya diz altı ampultasyon yapıldı.

Keywords: Amultasyon,iliak, Cart, Rerograd

1) İliak Total



2) Tip Enjeksiyon



3) İliak Stent Son





CP-25 / ANTEROGRADE AND RETROGRADE APPROACH AT THE SAME SESSION FOR TREATMENT OF TOTAL ILIAC ARTERY OCCLUSION

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56-year-old male patient with no medical history, without any medication until he admitted to our clinic due to leg pain while walking, for his complains he seeks a lot of medical attention, nothing to be found either orthopedic nor musculoskeletal disease. at our clinic patient we evaluate him to have peripheral artery disease due to severe ABI 0,7 lower extremity BP than the uppers and intermittent claudication. after that we decided to perform peripheral angiography, we access through the left brachial artery by 6f sheath then replace it by 7f sheath to advance through LIMA catheter then to advanced the 7f sheathless to the iliac bifurcation, then we recognized the chronic total occlusion of the left iliac artery, at the same session we decided to intervene it, through the sheathless we advanced the hydrophilic wire (connet 250T) beside the micro catheter, then fall into the lumen then check the hydrophilic wire base and replace it by poseidon wire after that we inflate the balloon and see the flow through the iliac artery but we notice the decision flap there so we decided that we cross through the false lumen so we have to switch the approach from antegrade to the retrograde one cause putting the stent to the false lumen will be disastrous, after switchin the approach we advanced the pose on wire to the femoral artery then under the scoop we access through the femoral artery then go forward by hydrophilic wire to fall into the micro that we advanced antegrade, then check the equipment back and put the self expandable stent to the iliac artery then inflate the balloon inside the proximal part of the stent, finally without any complication we finish the procedure with totally open iliac flow

Keywords: Anterograde, retrograde approach, iliac artery occlusion

Figure 1

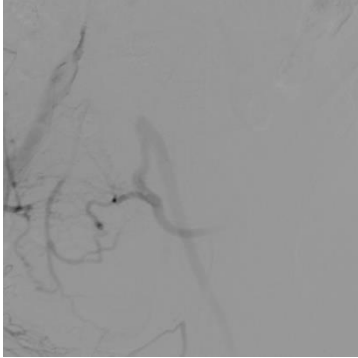


Figure 2

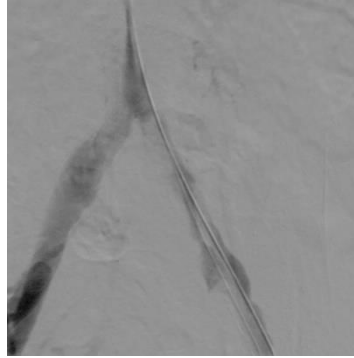
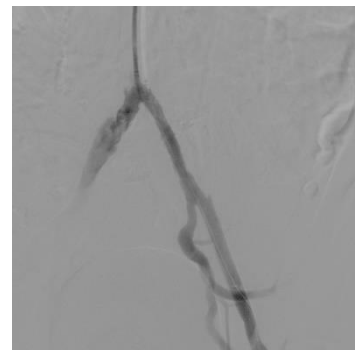


Figure 3





CP-27 / A SUCCESSFUL INTERVENTION TO VERY LONG ILIAC OCCLUSION

Bekir Çalapkorur

Kayseri Şehir Hastanesi, Kayseri, Turkey

A 67 years old man presented with left leg pain with minimal exertion since a year. His physical examination revealed no pulse on left femoral, popliteal and foot arteries. There was no sign of acute ischemic leg. Arterial Doppler USG revealed monophasic flow at left femoral, popliteal and tibias anterior arteries. Medical therapy was prescribed. Despite medical therapy, there was no advance at patient's symptoms. Peripheral angiogram and DSA were performed. Left common iliac artery was occluded at aorta-iliac osteal level. Collateral filing was observed at femoral artery level (figure 1). Percutan intervention was planned. Bracial artery access was used. Long sheath placed at aorta-iliac level. Total occlusion was penetrated antegradely with using 0,018 mm penetration wire. After penetration, 0,035 mm was used for crossing lesion with micro catheter. After crossing lesion, lesion was ballooned with 5,0*150 mm balloon (figure 2). A non-obstructive dissection was observed at proximal iliac artery. 8,0*58 mm peripheral balloon expandable stent was implanted at proximal iliac artery. Last DSA revealed fluent flow from aorta to foot (figure 3). After peripheral intervention, patient's symptoms were disappeared.

Keywords: Aorta-iliac occlusion, peripheral intervention, long occlusion

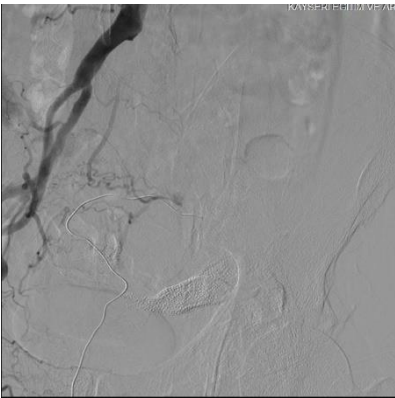
Balloon dilatation of iliac stenosis



Final image of successful intervention



Occlusion of iliac artery





CP-28 / SUCCESSFUL ILIAC INTERVENTION

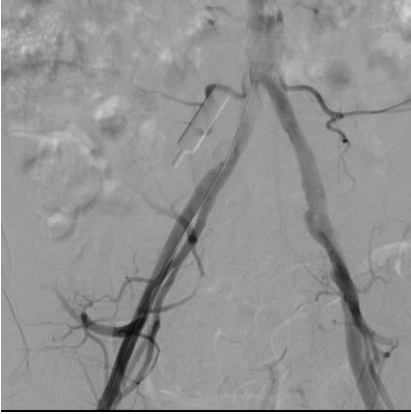
Bekir Çalapkorur

Kayseri Şehir Hastanesi, Kayseri, Turkey

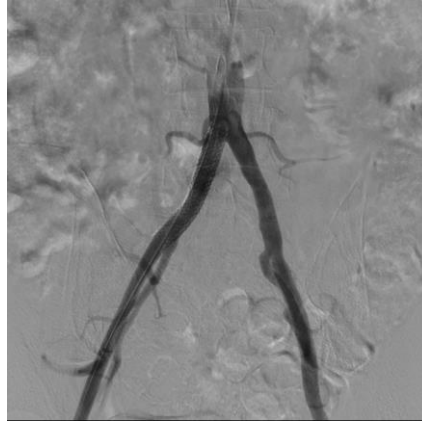
58 years old man presented with right leg pain since 6 months. His physical examination revealed decreased ABI (0,56) at right leg. Monophasic flow in right leg arteries were observed in Doppler US. Patient's pain did not relief after medical therapy. Peripheral angiogram was performed. Right common iliac artery total occlusion was founded at osteal level (figure 1). Iliac artery intervention was planned. After left brachial artery access, long sheath was placed at iliac level. 0,018 wire and micro-catheter were used for penetration and crossing the lesion. The wire was exchanged with soft tip wire. Lesion was dilated with 7,0*60 mm balloon. After dilatation, DSA of iliac artery and 5 cc injector was performed for choosing the stent size (figure 2). 9,0*59 mm stent was implanted at osteal level. There was no residual stenosis and fluent flow was observed after stent implantation (figure 3).

Keywords: Osteal iliac occlusion, Peripheral intervention, peripheral stent implantation

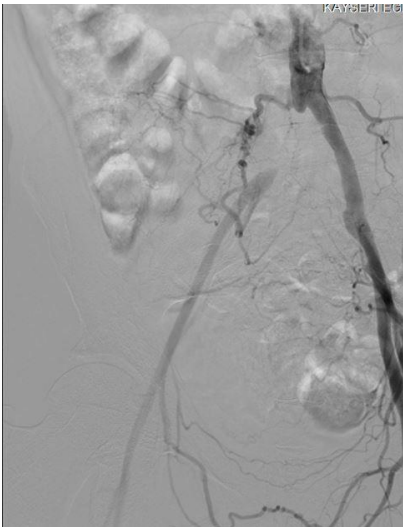
5 cc injector guiding for stent choosing



No residual stenosis and fluent flow after stent implantation



Osteal iliac occlusion





CP-30 / DESCENDING AORTIC RUPTURE IN A PEDIATRIC PATIENT DUE TO BLUNT TRAUMA AND SUCCESSFUL SURGICAL TREATMENT: A CASE REPORT

Rifat Özmen

Erciyes University Cardiovascular Surgery

INTRODUCTION: Intra-thoracic vascular injuries due to blunt chest injuries can cause mortality in a short time and cause too much bleeding. The incidence of aortic injury, especially in motor vehicle accidents, is the second most common cause of death with a rate of 0.5-2%. Approximately 25% of those who reach the hospital die and 80-90% of these patients die at the scene. While the mortality of the ascending aorta and arch aortic injuries alone is 45-65%, the descending aorta injury alone has a mortality rate of 50-85%. In this study, we aimed to discuss the successful surgical treatment of aortic injury due to non-vehicle traffic accident.

CASE PRESENTATION: A 13-year-old girl who was admitted to the emergency department due to a non-vehicle traffic accident was consulted for traumatic descending aortic dissection. In thorax CT, distortion of the aortic wall integrity (rupture) starting from distal to the arcus aorta and extending about 10 cm along the descending aorta (Figure 1), pleural effusion in the left hemithorax, pneumothorax in the right hemithorax, laceration of the left spleen, left femoral supracondylar fracture, left femur distal radius fracture and right temporo-mandibular joint fracture were detected. The patient underwent emergency surgery (Figure 2). The damaged area was totally resected and interposed with a 16 mm graft (Figure 3). The patient was taken to the intensive care unit postoperatively. The patient was discharged on the 10th postoperative day.

DISCUSSION: In blunt injuries of the thoracic region, other organs and systems usually accompany the injury. Aortic injuries should be suspected, especially in cases of in-vehicle traffic accidents, falls from height, ejection from a vehicle, motorcycle accident, and non-vehicle traffic accidents. In blunt injuries of the thoracic region, other organs and systems usually accompany the injury. Aortic injuries should be suspected, especially in cases of high-energy injuries such as traffic accidents and falling from a height.

In blunt aortic trauma, isthmus region is most commonly affected. In our case, there was an injury in the aortic isthmus region secondary to an out-of-vehicle traffic accident.

Aortic injuries occur as transection and / or dissection. Approximately 2-5% of aortic injury cases can survive without treatment. However, long-term pseudoaneurysm development may be observed in these patients. Patients with a diagnosis of stable hemodynamics and no severe additional injury (such as emergency craniotomy, laparotomy, pelvic stabilization) have an indication for emergency surgery after diagnosis.

Keywords: aortic injury, aortic treatment, trauma

Figure 1

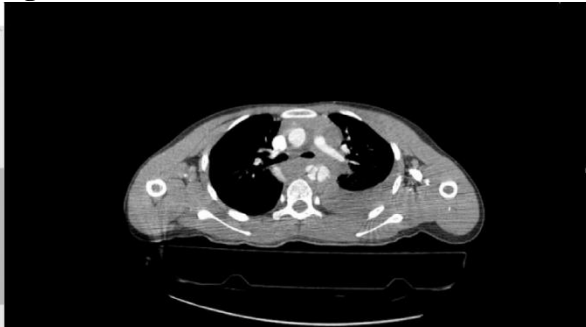


Figure 2



Figure 3





CP-31 / ILIAC ARTERY INTERVENTION AND AN EASY WAY TO SNARE

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49 year-old male patient with a history of hypertension, diabetes mellitus and coronary artery disease admitted to our clinic with chest pain and claudication in the right lower extremity. The diagnostic work-up was planned for coronary arteries and during coronary angiography, right-sided common iliac artery was totally occluded. Peripheral intervention was performed to the occluded iliac artery. For interventional strategy, brachial and right-sided femoral punctures were performed. Via femoral access, 4F catheter was approached to occluded segment and occluded segment was tried to be wired with Aqwire and Astato wires but the attempts were not successful and in the last attempt the wire penetrated to sub-intimal area. In the second attempt, antegrade wiring was tried and with the guidance of Supercross catheter, Aqwire was successfully got through the lesion and the Aqwire had been taken out of the vascular lumen with manually knuckled floppy wire used as a snare-like catheter via femoral sheath as a loop had been created. Predilation was performed with 6*20 mm balloon and then 9*57 mm balloon expandable peripheral stent was implanted in 14 atmospheric pressure to the lesion. Post-dilation was performed with 10*40 peripheral balloon inside of the stent. Control images showed no complication.

Keywords: Iliac stenting, Peripheral intervention, Snare, Brachial artery, Iliac artery



CP-32 / INTERVENTION TO INFRARENAL AORTA

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62 y, female patient. Severe complaint of claudication on both legs after walking distance 20 meters. Right ABI 0.48, left ABI 0.52. After CT angiography, there was a 95% stenosis in the infrarenal region. No additional pathology was detected in rheumatology and other evaluations. Conventional angiography showed a 62 mmhg gradient on lesion area. After the radial pigtail insertion, we passed the lesion from femoral insertion with the pilot 150 wire and 5f vertebral catheter, we placed amplatz super stiff wire over the vertebral catheter, first 9 * 30 mm balloon, then 20 * 40 mm self expandable stent placed to the lesion area. Postdilatation was performed with 18 * 40 mm nuded balloon (Figure1-3). The patient is comfortable now, and he has started walking. Claudication completely regressed.

Keywords: Adominal aorta, Peripheral stent, Intervention

Figure 1



Figure 2

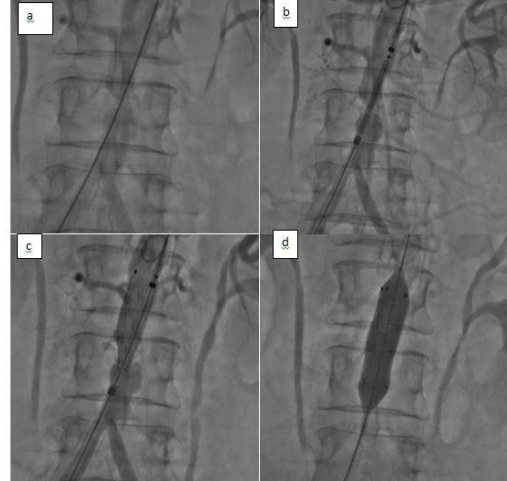


Figure 3





CP-33 / POPLITEAL ARTERY THROMBOSIS AS A VERY RARE COMPLICATION OF TOTAL KNEE REPLACEMENT: A CASE REPORT

Ahmet Genç, Gülsüm Meral Yılmaz Öztekin, Şakir Arslan

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INTRODUCTION: Popliteal artery damage during total knee replacement surgery is very rare (0.03-0.51%). Although these complications are rare, they are very important because they can cause 7% death and 42% amputation.

CASE: A 67-year-old female patient without vascular risk factors such as diabetes, smoking, hypertension and hyperlipidemia underwent bilateral total knee replacement surgery for osteoarthritis. After 24 hours postoperative pain and numbness in the right foot, swelling of the right toes was noticed and the physical examination revealed a blood pressure of 120 / 80mmHg, heart rate of 90 bpm, coldness of the right leg, paresthesia, calf tenderness and absence of right foot pulses. After arterial doppler and computed tomography (CT) angiography showed no flow in the right popliteal artery, an emergent endovascular intervention was decided.

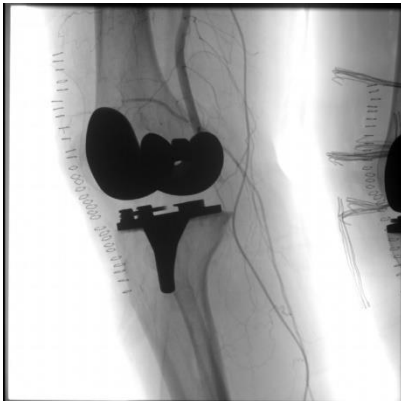
8-French (F) sheath was placed in the left common femoral artery, the right superficial femoral artery was reached by cross-over with a 6F 55cm sheathless catheter and direct angiography was performed from various angles (Figure 1), after the lesion was passed with 0.018 hydrophilic coated guidewire (v18 Boston Scientific). Percutaneous transluminal angioplasty (PTA) was performed several times with 3.0 x180 mm (Abbot Vascular Armada 18) and 4.0x100 mm (Hemoteq AG, Ranger SL) balloons respectively (Figure 2,3), due to insufficient flow and the presence of thrombus (Figure 4) aspiration was performed several times for 4-5 minutes with 6F Sofia cerebral aspiration catheter (Terumo) and some amount of thrombus was aspirated. However, sufficient distal flow was not achieved and dissection of the popliteal artery was observed (Figure 5). Finally, we implanted 6.0 x 40 mm self expandable stent (Abbot Vascular Supera) into the popliteal artery (Figure 6). In control angiography thrombosis and dissection were not observed and adequate distal flow was obtained (Figure 7) and the procedure was terminated. In the follow-up, the patient was treated with dual antithrombotic and intravenous alprostadil for 48 hours. The patient was discharged without serious complications due to leg ischemia.

CONCLUSION:

Although endovascular treatment yields satisfactory results for emergency arterial revascularization, its long-term outcomes and complications are not adequately elucidated. We believe that the endovascular method is a suitable treatment method for popliteal artery thrombosis after TKR, since it yields results from diagnosis to treatment in a short time.

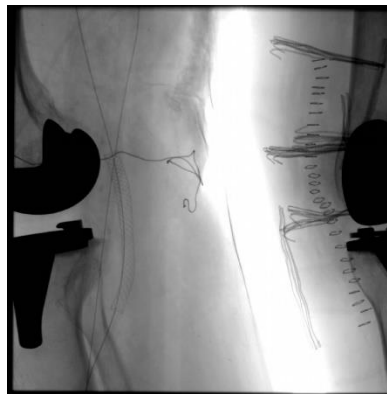
Keywords: : Total knee replacement, thrombosis, popliteal artery

Figure 1



Popliteal artery occlusion

Figure 2



Popliteal artery stenting

Figure 3



Optimal distal flow



CP-34 / BAŞARISIZ PERİFERAL GİRİŞİM ARDINDAN FEMPOP BYPASS YAPILAN VE SONRASINDA KRİTİK BACAK İSKEMİSİ GELİŞEN HASTAYA BAŞARILI GİRİŞİM VE 5 AYLIK TAKİBİ

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²Department of Cardiology, 19 Mayıs University, Samsun, Turkey

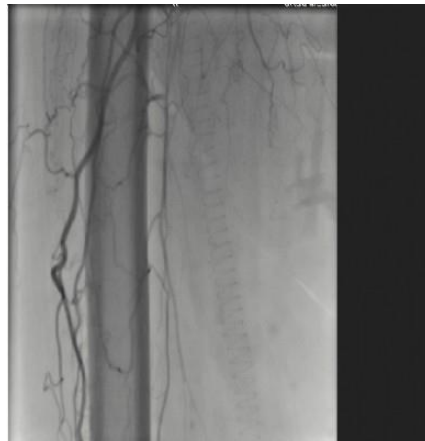
62 yaşında bayan hasta 30 yıldır diyabet sebebi ile takipli 4 yıldır kby nedeni ile diyaliz programında son 6 aydır 50 metre yürümekle bacağına ağrı şikayetleri baş göstermiş medikal tedavi verilmiş şikayetleri devam etmesi üzerine hastaya periferik girişim yapılmış girişim sonrası kritik bacak iskemisi gelişen hastaya fempop ve diz altı bypass işlemi yapılmış sonrasında yara yeri enfeksiyonu ve akut bacak iskemisi gelişmesi üzerine hasta kliniğimize başvurdu. Enfeksiyon hastalıkları ile birlikte değerlendirilen hastanın medikal tedavisi düzenlenerek girişim için katater laboratuvarına alındı. Tam tıkalı sağ yüzeyel femoral artere kontralateral yaklaşım ile sol femoral artere ponksiyon yapıldı uzun shiltless yerleştirildi. çekimler alındı daha önce girişim yapılmış sfa total, diseke alanlar tespit edilmemesi üzerine pedal ponksiyona karar verildi. mid total olarak saptanan sağ posterior tibial artere ponksiyon yapıldı fielder tel gönderildi. Üzerinden armet destek katateri ilerletildi. Astato 20 teli ile penetre edilip gladius 0,014 tel ile ilerlemeye çalışıldı. anastoneoz yerinden greft üzerine düşüldü. Bunun üzerine tekrar antegrat yaklaşıma geçildi. minnie 0,035 ve posedion tel ile penetre edilip subintimal ilerleme sağlandı. conger shift tel ile distale ulaşıp grefte girildi. 5,0*80 mm balon ile anastomoz yerine dilatasyonlar yapıldı. Takiben retrograt yoldan 0,018-135 cm mikro katater ve 0,018 gladius ile subintimal ilerleme sağlandı. antegrat yoldan gönderilen 5,0*150 mm blon ile sfa oklüzyonu rekanalize edildi. 0,018 minnie mikrokatater 150 cm gönderilip antegrat yoldan gladius 0,018 ile loop yapılarak posterior tibial arter gövdesine düşüldü 300 cm gladius tel yerleştirildi. retragrak kateter ve tel çekilip 2,5*80 mm balon ile posterior tibial arter lezyonlar açıldı. 3,0*150 balon ile popliteal arter distali rekanalize edilip dsa altında görüntüler alındı. 0,014 minnie mikro kateteri gönderilerek tp distalinde xt 300 ile loop yapılarak ta distaline ulaşıldı. Twinpass kateteri gönderilip ata çıkışına. park edildi. İkinci lümeninden gönderilen xt 300 teli ile ata lezyonları geçildi. 2,5*200 mm balonlar ile dilatasyonlar yapılarak optimal sonuca ulaşıldı. sfa diseke segmentlere 7,0*150, 7,0*150, 7,0*120 ve 8,0*60 mm stentler yerleştirildi. 6,0*200 mm balonlar ile post dilatasyonlar yapıldı ve tam açıklık sağlandı. 5 ay sonra yapılan kontrolünde ayaktaki lezyonların büyük ölçüde gerilediği ve şikayetlerinin kaybolduğu tespit edildi.

Keywords: Ata, Cart, Fempop, Pta, Sfa, Total

1 akut bacak iskemisi



2. Girişim Öncesi Sonrası





3. İşlem Sonrası





CP-35 / IATROGENIC POPLITEAL PSEUDOANEURYSM IN CHILDHOOD

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“Aneurysm” is a dilatation of an artery that involves all three layers of the artery wall (adventitia, media and intima). But pseudoaneurysm or “false aneurysm” develops from an injury to the artery wall, followed by formation of a hematoma and its containment by surrounding tissues and by the inflammatory process. Femoral artery is the most common location of the pseudoaneurysms. It is often dependent to invasive diagnostic or therapeutic procedures.

Popliteal artery pseudoaneurysm is not a common condition of the lower extremity. There are a kind of etiologies described in the literature that traumatism, infections, arterial reconstructive surgery and iatrogenic injuries after orthopedic procedures. And the rare etiological factors are knee luxation, abscesses and tumors in the popliteal fossa. Clinically, they present as a pulsatile hematoma with swelling of the popliteal region. They can cause arterial thrombosis and limb ischaemia. Therefore, early diagnosis and treatment are important to prevent associated complications.

A 16-year-old boy with history of motorcycle accident and bone fracture. Orthopedic stabilization of the right tibial fracture and after remove the stabilizator he has discharged. On the second day, he presented edema of the popliteal region and pain of the lower limb. Physical examination revealed a pulsatile, painful and progressive growing mass in the popliteal gap, not erythematous and with out temperature rise, associated with functional impotence due to compression of the surrounding structures. Distal pulses were not palpable. And distal of the limb was cyanotic. Doppler ultrasound was performed and showed a fusiform dilation of the popliteal artery with turbulent flow inside, suggesting a pseudoaneurysm. CT angiography on an out patient basis confirmed the presence of a pseudoaneurysm of 4.8×4.2×3.9 centimetres in diameter (transverse x anteroposterior x craniocaudal diameters). He was assessed by Vascular Surgery and has planned hybrid intervention. First endovascular balloon angioplasty was tried but it couldn't thrombose. And he has just turned to open surgery with medial infrapatellar incision in hybrid operating room. Popliteal artery cross clamped on proximal segment. The sack was opened and a posterior tear of the popliteal artery was identified and repaired by a continuous lateral suture with monofilament 6/0 verifying distal pulses. In the postoperative period, the patient evolved favourably with preserved distal pulses, improved symptomatology and there was no complication. he was discharged on the fourth postoperative day.

Keywords: Pseudoaneurysm, Popliteal, Trauma

Preop angiography 1



Preop angiography 2



Preop angiography 3





CP-37 / DIFFICULT ACCESS IN PERIPHERAL ANGIOPLASTY: GUIDANCE OF COLLATERALS IN THE PREVIOUS ANGIOGRAPHY

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A 72 years old male patient with a history of diabetes and ischemic foot wounds was consulted to our clinic. In his first angiography, there was no flow in the tibialis anterior artery (TAA). Although there was a lesion in the peroneal artery, it gave a collateral branch to the TAA. Revascularization for the TAA was planned from the antegrade route, but the procedure was unsuccessful due to large dissections. Puncture from distal TAA was attempted, but it was not successful since the distal filling was not good. Eventually, we planned to increase the filling of the TAA through the collaterals and performed a balloon angioplasty to the peroneal artery.

In the follow-up of the patient, we performed a second procedure due to the deterioration of the ischemic wounds. In the second angiography, we observed that the proximal filling of the peroneal artery was good, but the distal flow was disrupted and did not fill TAA via collaterals. Retrograde entry to the TAA was planned using collaterals seen in the previous angiography, but couldn't be seen in the current angiography. Using the images from previous angiography, we punctured these collaterals and reached to distal TAA via coronary microcatheter and filter fs 0.0014 wire (figure 1). Distal TAA was punctured via visualising the wire coming from the collaterals (figure 2). The lesion in the TAA was passed through a retrograde route with 0.014 wire. Then, we reached to TAA ostium and took the wire into the destination sheath system and converted the system into antegrade route.

At first, we performed balloon angioplasty to the lesions in the TAA and then kissing angioplasty to the TAA and the peroneal artery upon disruption of the peroneal artery flow. Subsequently, we performed a balloon angioplasty to the distal section of the TAA. Following these procedures, the distal flow was sufficient and we terminated the procedure.

Keywords: peripheral angioplasty, Difficult access, collateral

Figure 1



Figure 2



F G D

Organization Secretariat

