EndoLimb Rosario 2023

Nueva clasificación de lesiones en la arteria femoral común

Dr. Martín Rabellino
Jefe del Servicio de Diagnóstico por Imágenes
Hospital Italiano de Buenos Aires

Endo vs cirugia en femoral comun

« La cirugia representa el gold standard para el tratamiento de las lesiones de la arteria femoral comun en relacion a su permeabilidad y baja tasa de complicaciones »

- Permeabilidad 
- Morbimortalidad 

- Morbimortalidad

J Vasc Surg. 2015 Jun;61(6):1489-94.e1. doi: 10.1016/j.jvs.2015.01.024. Epub 2015 Feb 19.

Postoperative complications after common femoral endarterectomy.

Nguyen BN[1], Amdur RL[2], Abugideiri M[2], Rahbar R[2], Neville RF[2], Sidawy AN[2].

1 Department of Surgery, George Washington University, Washington, D.C.. Electronic address: bnnguyen@mfa.gwu.edu.

2 Department of Surgery, George Washington University, Washington, D.C.

Estudio retrospectivo de 1843 endarterectomias femorales desde 2005 a 2010

Morbimortalidad del 15% (mortalidad del 3.4%)
El 60% de las complicaciones se producen al alta

Hospitalizacion media de 4.6 ± 7.5 dias

Concluyen que la endarterectomia femoral no es un procedimiento tan "benigno" como creemos

- Morbimortalidad

Vasc Endovascular Surg. 2014 Jan;48(1):27-33. doi: 10.1177/1538574413508827. Epub 2013 Oct 18.

Assessing the perioperative safety of common femoral endarterectomy in the endovascular era.

Siracuse JJ[1], Gill HL, Schneider DB, Graham AR, Connolly PH, Jones DW, Meltzer AJ.

1 1Division of Vascular and Endovascular Surgery, New York-Presbyterian Hospital, Weill Cornell Medical College, New York, NY, USA.

Estudio retrospectivo de 1513 endarterectomias
A 30 dias 1.5% de mortalidad

Morbilidad 16.9%

Morbilidad	Porcentaje
Cardiaca	1
Pulmonar	1.9
Renal	0.4
Infeccion urinaria	1.7
Tromboembolica	0.5
Neurologica	0.4
Sepsis	2.7
Compl. superficial de Cx	6.3
Compl. profunda de la Cx	2
	16.9%

Endo vs cirugia en femoral comun

- Morbimortalidad

Podriamos decir:

“Que la cirugia de la arteria femoral comun no es tan inocente como pensamos”

Endo vs cirugia en femoral comun

Endovascular

Bajo nivel de evidencia hasta estos ultimos años

Endo vs cirugia en femoral comun

TECCO Trial

Frances multicentrico randomizado que compara la endarterectomia vs stent para AFC

- Desde 2011 a 2015
- Participaron 17 centros de Francia
- 61 ptes cirugía y 56 ptes para endovascular

El endopoint primario morbimortalidad a 30 d

Cirugia (61 ptes)	Endovascular (56 ptes)
16 (26%)	7 (12.5%)

Endo vs cirugia en femoral comun

TECCO Trial

Frances multicentrico randomizado que compara la endarterectomia vs stent para AFC

- Seguimiento a 2 años
- La sobrevida y la tasa libre de TLR no tuvo diferencias entre ambos grupos
- La permeabilidad fue superior para el stent pero no estadísticamente significativa

Concluyen que el stent tiene mayores beneficios a la cirugía en relación a la morbimortalidad representando una alternativa terapéutica

Los grandes Mitos de la comun

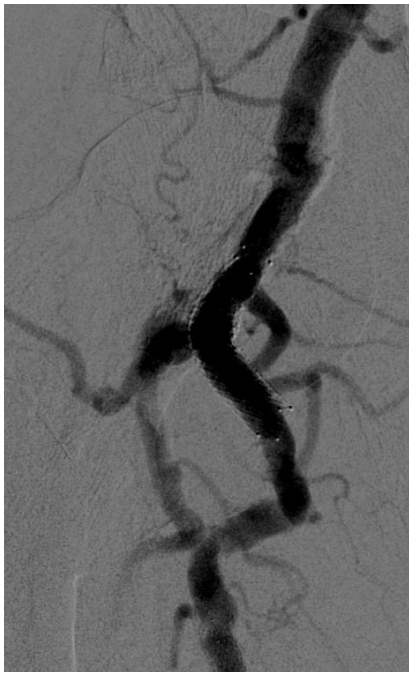
Sitio de flexion

Anular el acceso

Fracturas

Endo vs cirugia en femoral comun

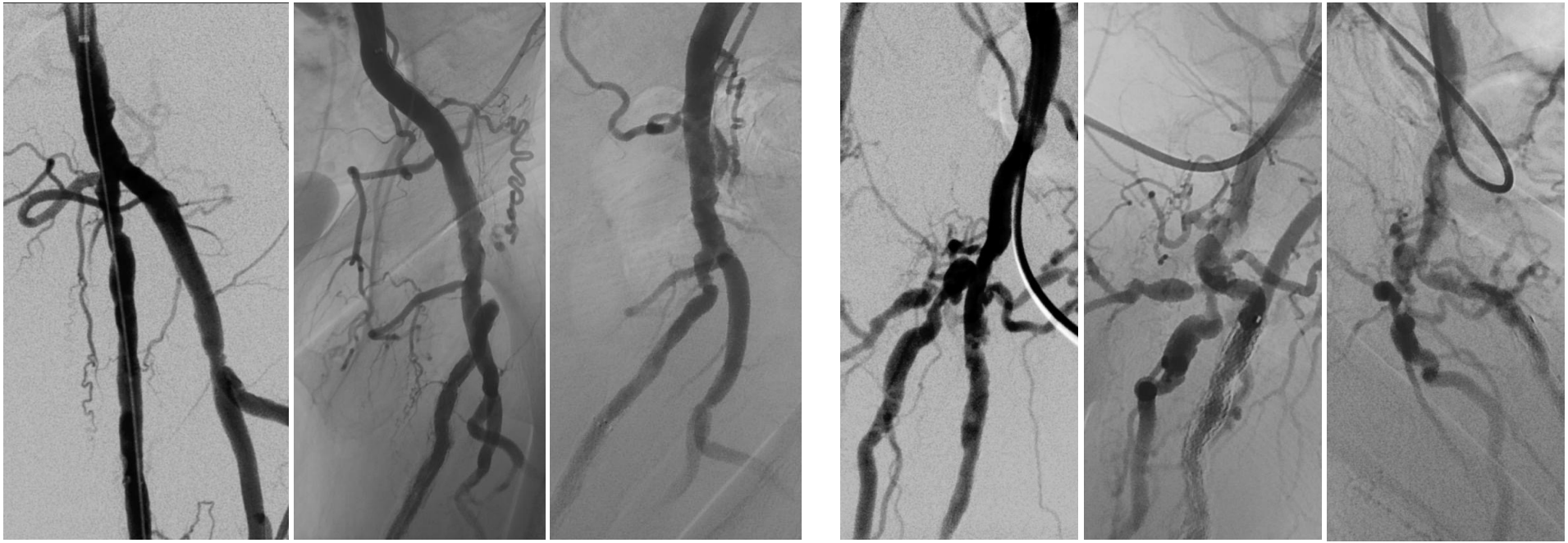
Sitio de flexion y fractura



Pacientes
Jovenes
<flexion

Endo vs cirugia en femoral comun

Sitio de flexion y fractura



Endo vs cirugia en femoral comun

Anular el acceso

Endo vs cirugia en femoral comun

Fracturas

J Cardiovasc Surg (Torino). 2019 Feb;60(1):8-13. doi: 10.23736/S0021-9509.18.10787-7. Epub 2018 Nov 12.

Endovascular treatment for the common femoral artery: is there a challenger to open surgery?

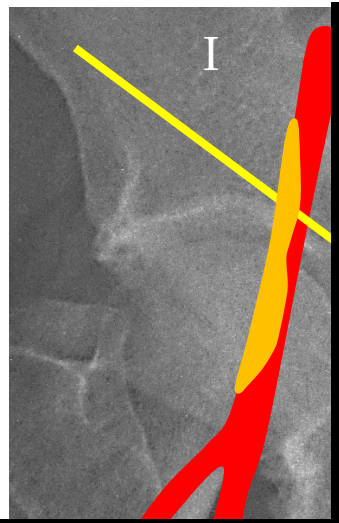
Deloose K[1], Martins I[2], Neves C[2], Callaert J[3].

- 100 Ptes: Permeabilidad primaria a 6 y 12 meses 100 y 95,2%.
- Libre de TLR 100 y 97,8% a 6 y 12 meses
- Sin complicaciones relacionadas al dispositivo

Endo vs cirugia en femoral comun

Endovascular

Clasificacion de Azema

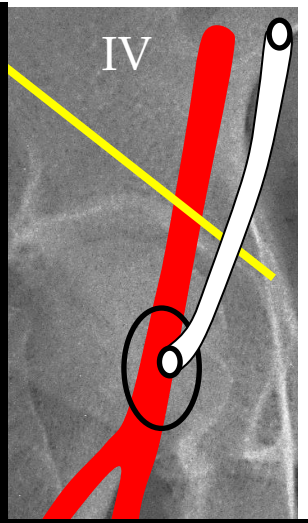


No contempla:

Calcio

Grado de estenosis

Todas las lesiones



No nos permite clasificar las lesiones post tratamiento

Cardiovasc Intervent Radiol
https://doi.org/10.1007/s00270-021-03011-z

CIRSE

CLINICAL INVESTIGATION ARTERIAL INTERVENTIONS

Novel Common Femoral Artery Lesion Classification in Patients Undergoing Endovascular Revascularization

Martín Rabellino[1] · Juan Valle Raleigh[2] · Juan Guido Chiabrando[2] · Vanesa Di Caro[1] · José Chas[3] · Fernando Garagoli[4] · Ignacio Bluro[4]

Received: 28 June 2021 / Accepted: 5 November 2021

Abstract

Purpose Common femoral artery (CFA) is a critical segment of the lower-limb arterial tree. We sought to propose an extensive classification in order to appraise a diagnostic and therapeutic approach.

Methods A retrospective cohort of CFA lesions with endovascular therapy was evaluated. We appraised the extension, the degree of stenosis and the calcium burden. A new group "IV" included lesions that started at the external iliac artery or common iliac artery extending into the CFA and affecting its bifurcation. The primary outcome was the need for a retrograde bailout access after failed anterograde access and the procedural time.

Results From 2012 to 2020, a total of 58 lower limbs in patients with CFA lesions were included. New proposed group IV compromised 36% of lesions. Additionally, procedural time was significantly longer in group IV lesions compared with the rest (76.9 ± 32.23 min vs 47.67 ± 17.93 min, $p < 0.01$), as was the requirement of retrograde bailout access (23.8 vs 2.6%, $p = 0.03$). Occlusive lesions were associated with longer procedural times and bailout retrograde access compared to stenotic lesions (74.7 ± 33.6 min vs 48.29 ± 16 min, $p < 0.001$ and 26.1 vs 0%, $p = 0.006$, respectively), as well as heavy calcification compared to mild or moderate calcification (73.18 ± 28.15 vs 51.86 ± 25.1, $p = 0.06$ and 29.4 vs 2.4%, $p = 0.009$, respectively). Secondary clinical outcomes and target lesion revascularization did not differ among groups.

Conclusions Our classification includes a new group of extensive and frequent lesions, which did not fit in previous classifications.

Keywords Common femoral artery · Endovascular therapy · Procedural time · Retrograde bailout access—calcification

✉ Juan Valle Raleigh
juan.valleraleigh@hospitalitaliano.org.ar

[1] Department of Angiography and Endovascular Therapy, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina

[2] Department of Interventional Cardiology, Hospital Italiano de Buenos Aires, 4190 Pte. J. D. Perón St, Buenos Aires, Argentina

[3] Department of Vascular Surgery, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina

[4] Department of Cardiology, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina

Introduction

Common femoral artery (CFA) and its bifurcation are critical segments of the lower-limb arterial tree, as their occlusion may precipitate in critical limb ischemia or severe claudication [1]. Although open surgery was generally considered the gold standard in the past, current endovascular therapies (ET) have provided comparable efficacy results with lower periprocedural morbidity [1–3].

The correct classification of CFA lesions, therefore, remains critical in order to correctly appraise the severity of the disease, and ultimately allow interventionalists to compare and manage therapeutic alternatives based on lesion group and location and ultimately compare clinical

Published online: 21 January 2022

Nueva clasificación de lesiones en la AFC

58 ptes 64 extremidades
Stent en la arteria femoral común
(2012-2020)

1-Nuevo grupo de lesiones

Un porcentaje de nuestras lesiones no podíamos incluirla en ningún grupo de la clasificación de Azema
21 lesiones 35% de la muestra

Grupo 4 (un nuevo grupo)

2-Categorizar el grado de calcificación

Calcificación no severa (L) vs calcificación severa (H)

Abordajes retrogrados: Calcio severo 29.4% vs leve 2.4%

Tiempo de procedimiento: 73 vs 51 minutos

3-Categorizar el grado de estenosis

Estenosis vs obstrucción

Abordajes retrogrados: Oclusiones 26% vs Estenosis 0%

Tiempo de procedimiento: 74 vs 48 minutos

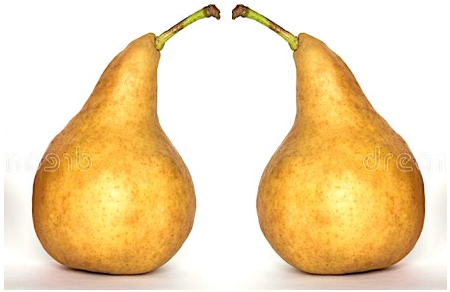
Longitud de la lesión: Oclusiones 10 cm vs 3 cm

4-Incluimos la bifurcación en la clasificación

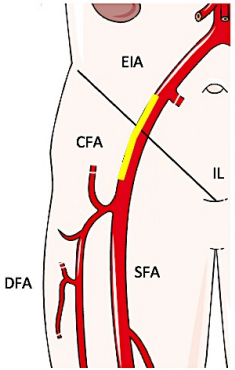
Superficial: S Profunda: D Ambas: B

5-Generar una clasificación de las lesiones post tratamiento

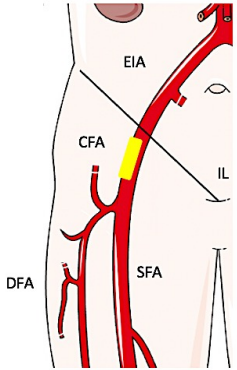
Afecta a las lesiones de la bifurcación denominando cuál fue el vaso de run off tratado además de la común



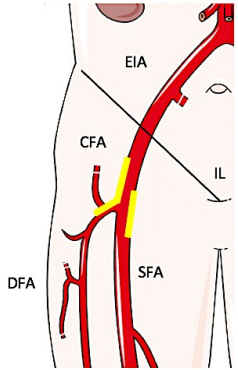
Type I



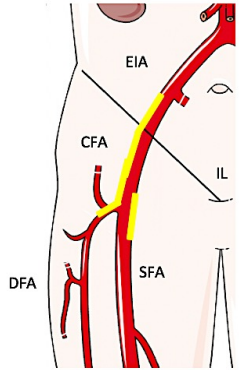
Type II



Type III*



Type IV*



Assess:

1) Bifurcation lesion — S | D | B

2) Oclusion — Stenosis (S) | Oclusion (O)

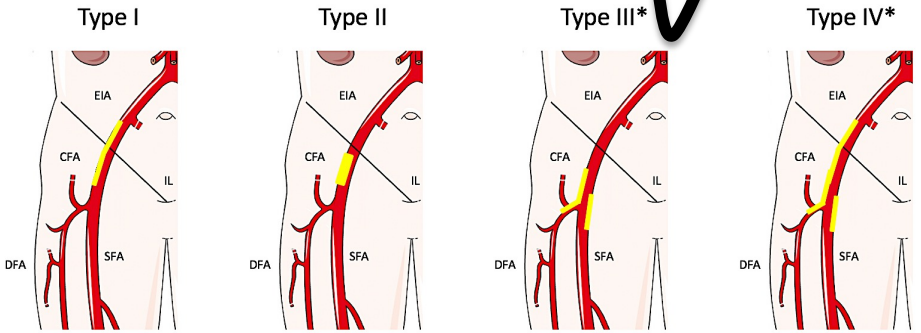
3) Calcification — Not Severe Calcification (L) | Severe Calcification (H)

* Stenosis may afect the SFA, DFA or both

CFA: common femoral artery, DFA: Deep femoral artery, EIA: external iliac artery, IL: inguinal ligament, SFA: superficial femoral artery

Clasificación Pre TTO

Lesión tipo III B O H



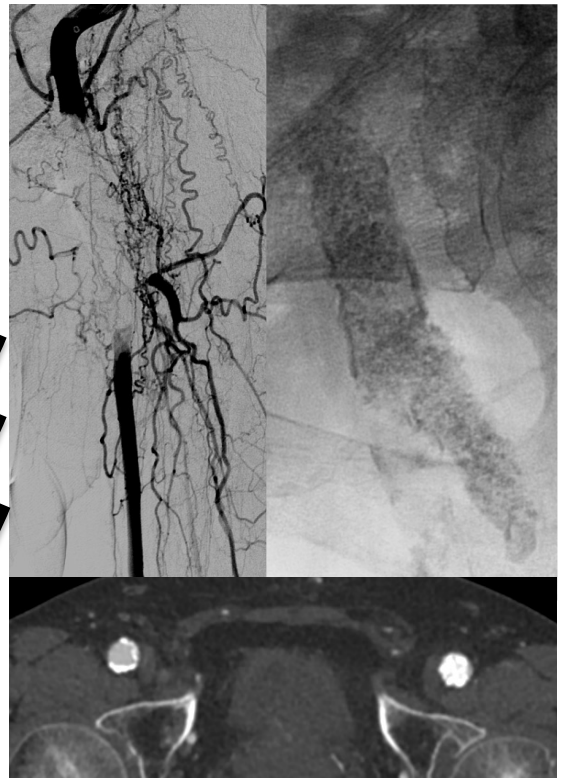
S D B

Stenosis S

Oclusion O

Not Severe Calcification L

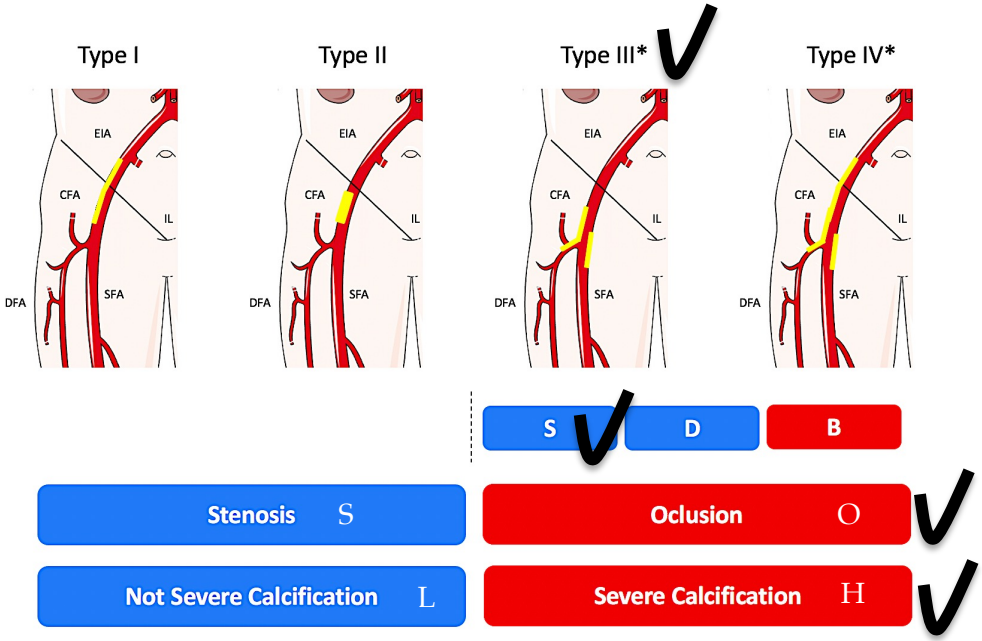
Severe Calcification H



* Stenosis may afect the SFA, DFA or both

ι: common femoral artery, DFA: Deep femoral artery, EIA: external iliac artery, IL: inguinal ligament, SFA: superficial
ıoral artery

Clasificación Post TTO



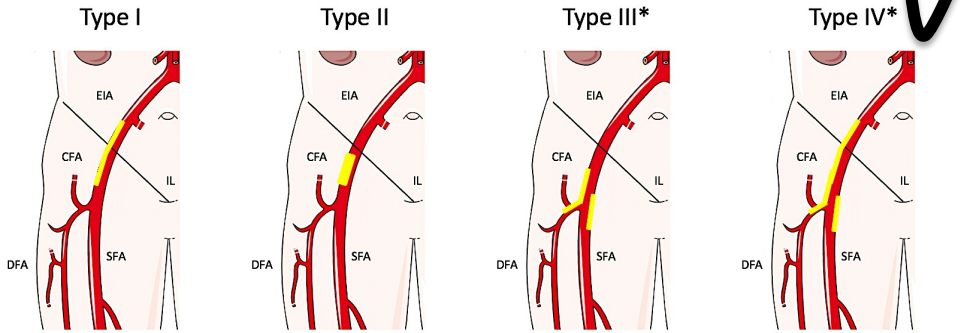
* Stenosis may afect the SFA, DFA or both

ι: common femoral artery, DFA: Deep femoral artery, EIA: external iliac artery, IL: inguinal ligament, SFA: superficial ıoral artery

Lesión tipo III S O H

Clasificación Pre TTO

Lesión tipo IV B O L



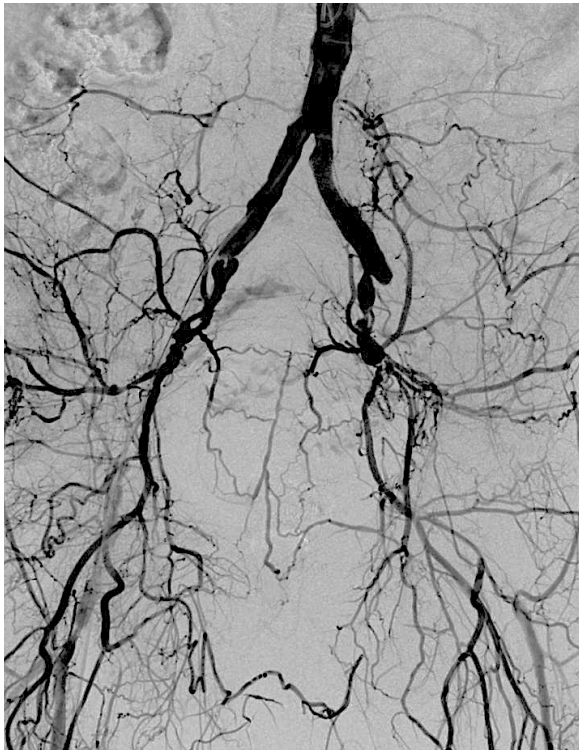
S D B

Stenosis S

Oclusion O

Not Severe Calcification L

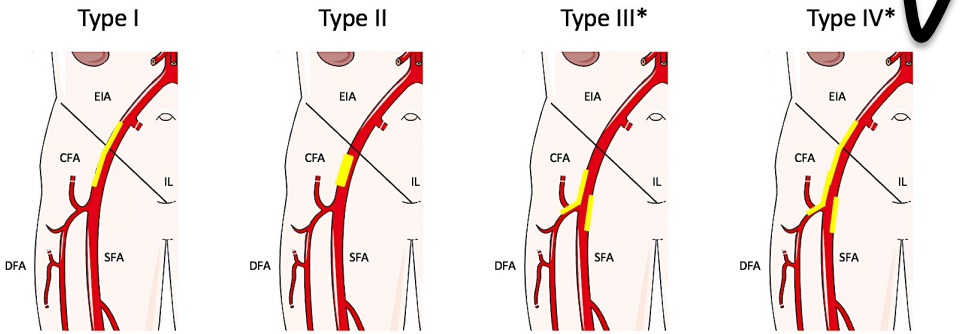
Severe Calcification H



* Stenosis may afect the SFA, DFA or both

ι: common femoral artery, DFA: Deep femoral artery, EIA: external iliac artery, IL: inguinal ligament, SFA: superficial
ıoral artery

Clasificación Post TTO



S D B

Stenosis S

Oclusion O

Not Severe Calcification L

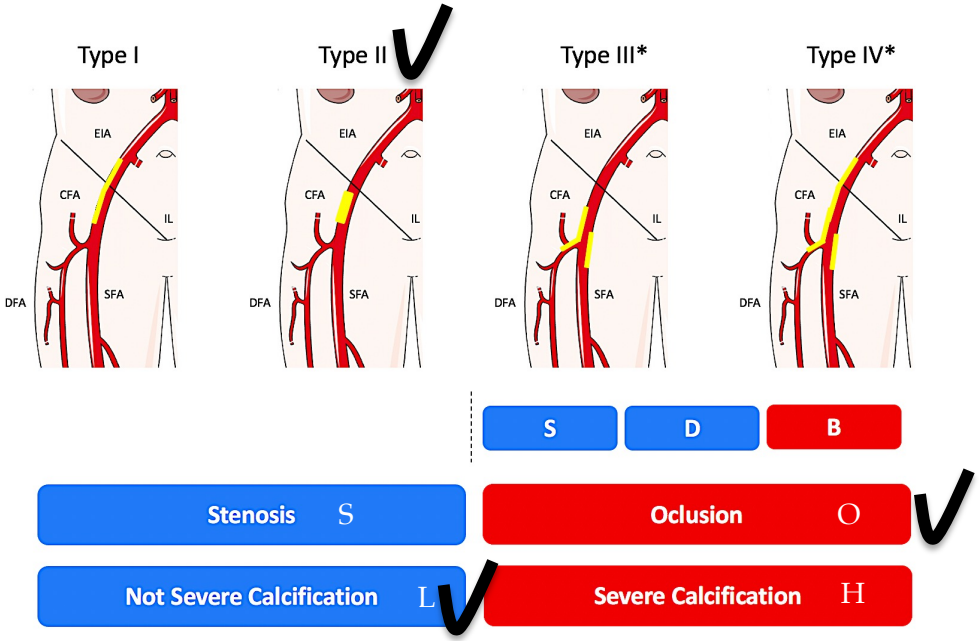
Severe Calcification H

* Stenosis may afect the SFA, DFA or both

: common femoral artery, DFA: Deep femoral artery, EIA: external iliac artery, IL: inguinal ligament, SFA: superficial oral artery

Lesión tipo IV B O L

Clasificación Pre y post TTO



* Stenosis may afect the SFA, DFA or both

ι: common femoral artery, DFA: Deep femoral artery, EIA: external iliac artery, IL: inguinal ligament, SFA: superficial ıoral artery

Lesión tipo II O L

Cardiovasc Intervent Radiol (2022) 45:448–449
https://doi.org/10.1007/s00270-021-03034-6

CIRSE

COMMENTARY COMMENTARY

Time for a Standardized Common Femoral Artery Classification System

Thomas Zeller[1]

Received: 21 November 2021 / Accepted: 25 November 2021 / Published online: 15 February 2022

During the last decade, interventional therapy of common femoral artery (CFA) lesions has become an attractive alternative to the open surgical reconstruction by means of endarterectomy with or without patch plastic. However, prospective comparative data between endovascular treatment and surgery are still rare mainly comparing stenting with TEA [1]. CFA lesions may differ regarding location (exclusive CFA involvement vs. extension into the femoral bifurcation or external iliac artery) and morphology (e.g., degree of calcification). Therefore, there is a need for a standardized classification system to allow the comparison of published data as well as to identify treatment strategies that fit best individual lesion characteristics.

The modified coronary Medina classification proposed by Bonvini et al. is limited by considering only the anatomical lesion location and lesion extension [2]. The Azema classification included information about lesion morphology defining four types of lesion locations [3] but the degree of calcification and the severity of the lesion (stenosis vs. occlusion) were not part of the classification system. However, these missing parameters are potential predictors for acute treatment success and durability of the revascularization procedure.

In the present study, Rabellino et al. modified the Azema classification in a very practical way [4]: Previous Type IV lesions defined as bypass stenotic lesions were excluded in order to limit the new classification to native artery atherosclerotic lesions. Hence, Type I-III lesions remained the same. Type IV lesions in the new classification include lesions extending either from the external iliac artery (EIA) or common iliac artery (CIA) into the CFA and affecting its bifurcation.

Three additional lesion sub-characteristics were added for a more detailed lesion description of the four types of lesions: In Type III and IV lesions, it was specified which branch of the femoral bifurcation is involved. If only the superficial femoral artery (SFA) is affected, this was classified with an "S." If only the deep femoral artery (DFA) was involved, a "D" was given, and if both branches were involved, it was classified as a "B" for both. As such, a Type III lesion starting at the CFA and extending to both the branches was denominated as a "TYPE III B" lesion. A further differentiation involves stenotic ("S") versus occlusive ("O") lesions. Finally, vascular calcium assessment was made by fluoroscopy or by computed tomography and added to the classification in heavy calcium burden "H" or with mild to moderate calcium burden "M." Back to the example of a Type III B lesion with occlusive disease and heavy calcium burden, the lesion would be classified as a Type III B, O, H lesion.

Classifying CFA lesions in this proposed fashion in upcoming studies will allow a better comparison of acute and potentially long-term outcomes. Besides the small sample size, the main limitation of the study is the unusual definition of primary patency ("time free from more than 50% restenosis following index treatment"). This makes it impossible to compare the primary study end point of the Rabellino with historic studies and limits the prediction of long-term treatment success stratified to the proposed lesion characteristics.

In summary, the new CFA lesion classification proposed by Rabellino et al. should be applied to all upcoming

✉ Thomas Zeller
Thomas.zeller@uniklinikum-freiburg.de

[1] Clinic for Cardiology and Angiology II, University Heart Center Freiburg – Bad Krozingen, Campus Bad Krozingen, Südring 15, 79189 Bad Krozingen, Germany

Dr. Thomas Zeller

"In summary, the new CFA lesion classification proposed by Rabellino et al. should be applied to all upcoming studies for improving study comparability and identification of potential predictors of acute and long-term treatment success for each individual treatment modality"

Journal of *Clinical Medicine*

MDPI

Article

Evaluation of Stent Angioplasty in the Treatment of Arteriosclerotic Lesions of the Common Femoral Artery

Tanja Böhme *,†, Thomas Zeller, Mohamed Abboud, Ulrich Beschorner and Elias Noory †

Clinic for Cardiology and Angiology II, University Heart Center Freiburg-Bad Krozingen, Campus Bad Krozingen, Südring 15, 79189 Bad Krozingen, Germany; thomas.zeller@uniklinik-freiburg.de (T.Z.); dr.mohamedabboud@gmail.com (M.A.); ulrich.beschorner@uniklinik-freiburg.de (U.B.); elias.noory@uniklinik-freiburg.de (E.N.)

* Correspondence: tanja.boehme@uniklinik-freiburg.de

† These authors contributed equally to this work.

Abstract: In many vascular segments, endovascular therapy is the treatment of choice for arteriosclerotic lesions. For the treatment of common femoral artery (CFA) lesions, surgical reconstruction is still considered the gold standard. The purpose of this study is to evaluate the safety and efficacy of stent angioplasty for the treatment of common femoral artery (CFA) lesions in a real-world population during a two-year follow up. This retrospective, single-center study includes 250 patients requiring treatment with stent angioplasty of CFA lesions. The primary end point was the target lesion revascularization (TLR) rate. Secondary end points were the overall procedural complication rate, the rate of ipsilateral CFA punctures during follow-up, changes in the Rutherford–Becker class (RBC) and ankle–brachial index (ABI), primary patency rates, amputation rate, time to and the type of TLR. A total of 236 interventions (94.4%) were successfully defined as a residual stenosis < 30%. Periinterventionally, there were 23 complications (9.1%), 3 of which had to be treated surgically. Median follow up was 21 months (average 19.2 ± 7.8). In total, 41 patients (16.4%) needed a TLR. The primary patency rate was 90.8%, 81.2% and 72% at 6, 12 and 24 months, respectively. ABI and RBC were significantly better at all time points compared to baseline. During follow up, seven amputations (three minor and four major) had to be performed. More than half of the patients (56.0%) were punctured at the stented CFA during the follow up. Multivariate logistic regression analysis showed continued nicotine use and coronary heart disease as predictors for TLR. Stent angioplasty for the treatment of CFA lesions is safe and effective. Further studies are needed to compare this endovascular option with surgical therapy.

Keywords: peripheral arterial disease; stent angioplasty; common femoral artery

check for updates

Citation: Böhme, T.; Zeller, T.; Abboud, M.; Beschorner, U.; Noory, E. Evaluation of Stent Angioplasty in the Treatment of Arteriosclerotic Lesions of the Common Femoral Artery. *J. Clin. Med.* **2022**, *11*, 2694. https://doi.org/10.3390/jcm11102694

Academic Editors: Abdelkrim Hmadcha and Christine Espinola-Klein

Received: 15 March 2022
Accepted: 7 May 2022
Published: 10 May 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

1. Introduction

The incidence of peripheral artery disease (PAD) has increased worldwide [1]. Limitation of pain-free walking distance (intermittent claudication), rest pain or tissue ulceration represent the indications for treatment of PAD [2]. Due to lower invasiveness, endovascular therapy has become the treatment of choice over open surgical therapy in many arterial regions [2,3]. This does not yet include treatment of the common femoral artery (CFA). Here, surgical endarterectomy is still considered the therapeutic "gold standard". The primary 1-year patency rates after surgical endarterectomy reported in the literature are 85–95% [4]. Numerous small studies indicate that endovascular therapy may have the potential to replace open surgery at least for some anatomical characteristics of CFA lesions [5–9]. In a retrospective study, the use of stents was associated with significant lower 1-year restenosis and target lesion revascularization (TLR) rate and was a protective factor against procedure failure [6]. The TECCO trial [10], a prospective, randomized, multicenter study comparing primary stent angioplasty and open surgical reconstruction for CFA lesions, documented comparable reintervention rates at 2 years. Because of remaining concerns about stent

Dr. Thomas Zeller

Table 2. Lesion classification according to Rabellino et al. [11].

	I	II	III	IV
S (Stenosis)	63	65	40	17
O (Occlusion	26	8	12	19
H (Heavy)	51	54	41	26
M (Mild-moderate)	38	19	11	10
S (SFA)			12	4
D (DFA)			5	4
B (Both)			35	28

DFA—deep femoral artery, SFA—superficial femoral artery.

Cardiovasc Intervent Radiol (2022) 45:448–449
https://doi.org/10.1007/s00270-021-03034-6

Time for a Standa… System

Thomas Zeller[1]

Received: 21 November 2021 / Acce…

During the last decade, interve… femoral artery (CFA) lesions … alternative to the open surgical … endarterectomy with or witho… prospective comparative data b… ment and surgery are still rare … with TEA [1]. CFA lesions ma… (exclusive CFA involvement vs … bifurcation or external iliac ar… degree of calcification). There… standardized classification syst… of published data as well as to … that fit best individual lesion cl…

The modified coronary Mes… by Bonvini et al. is limited … anatomical lesion location and … Azema classification included … morphology defining four types … the degree of calcification and … (stenosis vs. occlusion) were l… system. However, these missin… predictors for acute treatment s… revascularization procedure.

In the present study, Rabs… Azema classification in a very … Type IV lesions defined as by … excluded in order to limit the … artery atherosclerotic lesions.

✉ Thomas Zeller
Thomas.zeller@uniklinikum-frei…

[1] Clinic for Cardiology and Angio… Center Freiburg – Bad Krozing… Südring 15, 79189 Bad Krozing…

Journal of Clinical Medicine

Article

Evaluation of Stent … Arteriosclerotic Lesi…

Tanja Böhme *,†, Thomas Zeller, Mo…

check for updates

Citation: Böhme, T.; Zeller, T.; Abboud, M.; Boschorer, U.; Noory, E. Evaluation of Stent Angioplasty in the Treatment of Arteriosclerotic Lesions of the Common Femoral Artery. J. Clin. Med. 2022, 11, 2694. https://doi.org/10.3390/jcm11102694

Academic Editors: Abdulkrim Hmadcha and Christine Espinola-Klein

Received: 15 March 2022
Accepted: 7 May 2022
Published: 10 May 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Eur J Vasc Endovasc Surg (2023) 66, 280–281

RESEARCH LETTER

Safety, Effectiveness, and Midterm Results of Endovascular Treatment for the Common Femoral Artery: A Two Centre Atherectomy Trial

Mariya Kronlage [a,*], Christian Erbel [a], Michael Lichtenberg [b], Konstantinos Donas [c], Norbert Frey [a], Grigorios Korosoglou [d,e]

[a] University Hospital Heidelberg, Department of Cardiology, Angiology and Pneumology, Heidelberg, Germany
[b] Vascular Centre Klinikum Arnsberg, Arnsberg, Germany
[c] Department of Vascular and Endovascular Surgery, Research Vascular Centre, Asklepios Clinic Langen, Langen, Germany
[d] GRN Hospital Weinheim, Department of Cardiology and Vascular Medicine, Weinheim, Germany
[e] Cardiac Imaging Centre Weinheim, Hector Foundation, Weinheim, Germany

Due to its proven long term durability, open repair represents the gold standard treatment for common femoral artery (CFA) lesions.[1] Recent studies have pointed to the feasibility of atherectomy in the CFA, providing low bailout stenting and clinically driven target lesion revascularisation (CD-TLR) rates.[2] The current study sought to evaluate whether lesion localisation and calcification are predictive of limb outcomes after endovascular CFA treatment.

Between May 2018 and June 2022, 144 consecutive patients with 151 CFA lesions were enrolled in two centres (ethics approval S-331/2013 and S-100/2017, University of Heidelberg). All included patients were referred for endovascular treatment by clinical assessment from the interdisciplinary teams, recommendation from the primary vascular specialists, or patient preferences. Symptoms of peripheral artery disease were classified according to Rutherford categories (RC).

All procedures were performed by two experienced interventional angiologists (C.E. and G.K.). Procedural details have been described elsewhere.[2] After Phoenix atherectomy, lesions were treated using drug coated balloon (DCB) or scoring balloon angioplasty at the operator's discretion. Bailout stenting was performed in cases of extensive flow limiting dissections or recoil.[2]

The CFA lesions were assessed by M.K. as follows: (a) localisation: Type I: isolated CFA lesions, Type II: lesions including the external iliac artery (EIA) without involvement of the femoral bifurcation, Type III: CFA lesions involving the femoral bifurcation, Type IV: lesions extending from the EIA to the femoral bifurcation; (b) calcification; and (c) presence of chronic total occlusion (CTO).[3]

For the CFA lesion complexity score (CLCS), Type I/II lesions received 2.0 points, whereas Type III /IV received 2.5 – 3.0 and 4.0 points, respectively. Two additional points were given for CTOs. Points were then multiplied by a factor of 1.0, 1.5, or 2.0 for no or mild, moderate, and severe calcification, respectively (Fig. 1).

Endpoints were clinical success (≥ 1RC improvement) and CD-TLR during follow up.

Eighty-nine patients (61.8%) had claudication (RC3), 16 (11.1%) had ischaemic rest pain (RC4), and 39 (27.1%) had ischaemic ulceration. The mean age was 72.8 ± 8.5 years. Fifty-two patients (36.1%) had moderate or severe chronic kidney disease, while five (3.5%) had end stage renal disease.

Types I, II, III, and IV were present in 16 (10.6%), 43 (28.5%), 81 (53.6%), and 11 (7.3%) cases, respectively. Sixty-one (40.4%) were moderately calcified and 86 (57.0%) were severely calcified, whereas 11 (7.3%) were CTOs. Twenty-seven (17.9%) cases had ipsilateral iliac disease and 102 (67.5%) cases had ipsilateral femoropopliteal disease.

A single perforation (0.7%) was managed by covered stent placement, whereas minor peripheral embolisation was noted in two (1.3%) cases. There was one pseudoaneurysm (0.7%) requiring thrombin injection. Drug coated ballooning was performed in 84 (55.6%) and scoring balloon in 54 (35.8%) lesions. In 20 (13.2%) CFA lesions, bailout stenting was performed using self expandable ($n = 2$) or interwoven stents ($n = 18$). Overall, the stenting rate in the femoropopliteal region was 38.2%, mostly due to recoil in the heavily calcified lesions.

Clinically driven target lesion revascularisation was performed in nine (6.3%) lesions after two years (1.3 – 2.6), in seven cases using atherectomy and DCB, in one case with atherectomy and bailout stenting, and in one case with DCB only.

Median RC decreased from 3.0 (3.0 – 5.0) to 1.0 (1.0 – 2-0). Clinical success was achieved in 121 (91.0%) patients. Ten (7%) minor and one (0.7%) major amputation were performed.

A CLCS ≥ 6.0 was predictive of CD-TLR independent of age and baseline RC (HR 7.1; 95% CI 1.23 – 41.0; $p = .03$).

This study demonstrated that Phoenix atherectomy can be used safely for the endovascular treatment of CFA lesions with low complication rates; the 13.2% bailout stenting rate was considerable and possibly related to high

* Corresponding author. Mariya Kronlage, Heidelberg University Hospital, Im Neuenheimer Feld 410, 69120 Heidelberg, Germany.
E-mail address: Mariya.Kronlage@med.uni-heidelberg.de (Mariya Kronlage).

Cardiovasc Intervent Radiol (2023) 46:317–318
https://doi.org/10.1007/s00270-023-03378-1

The Endovascular Treatment of the Common Femoral Artery Came to Stay: But Which is the Best Option?

Martin Rabellino[1] · Juan Guido Chiabrando[1]

Received: 25 January 2023 / Accepted: 28 January 2023 / Published online: 15 February 2023

Keywords Common femoral artery · Stenting · Endovascular

Open surgery has long been acknowledged as the preferred treatment for common femoral artery (CFA) revascularization [1]. However, it's associated with a 15% incidence of mortality/morbidity, including infections, bleeding, and wound-related complications that occur > 60% after discharge and necessitate new treatment in 10% of cases [2]. Endovascular therapy (EVT) has grown in popularity as a result of its less invasive nature and recent studies showing good permeability in both short- and long-term follow-up [3, 4].

When performing CFA EVT, it is important to take into account a number of important factors, including the extent of the CFA's extension into the external iliac artery and towards its bifurcation, the level of calcification, and the presence of occlusion rather than stenosis.

In this study, Yamauchi and colleagues present data from the Cauliflower Study, a large-scale retrospective multicenter registry study that included 791 patients with peripheral artery disease and common femoral artery angioplasty [5]. Lesions extended to the external iliac artery in 10.0% of patients (type I), were isolated in the CFA in 59.9% of patients (type II), and involved the bifurcation in 30.1% of patients (type III). Lesions involving an occluded bypass were excluded from the analysis. Patients were 74-years-old on average, 73.4% of whom were male, and 53.9% belonged to Rutherford class 3, which was the most prevalent presentation. Moreover, 19.9% and 21.1% of patients, respectively, had subtotal occlusion (99% occlusion) and chronic total occlusion.

Diverse endovascular devices were used, including stent placement in 20.5% of patients, drug-coated balloon angioplasty in 23.2% of cases, and plain old balloon angioplasty (POBA) in 56.3% of cases.

The authors conclude that there are three independent risk factors for restenosis following CFA EVT: a history of CFA endovascular treatment, reference vessel diameter < 6 mm, and a lesion length greater than or equal to 50 mm.

This study's lower patency rates when compared to other studies is likely caused by the low usage rate of stents. In fact, in the Cauliflower study, the primary patency rates for POBA and DEB at 12 months were lower than the primary patency rate of the stent (80.1 ± 3.7% and 74.9 ± 6.1% vs 86.9 ± 4.3% respectively) [6]. In addition, the *TECCO* trial, which required the placement of stents (67% self-expanding and 33% balloon expandable), demonstrated comparable 2-year patency, sustained clinical improvement, and target lesion revascularization rates for EVT with stenting compared to surgery, but with significantly lower morbidity and mortality and shorter

✉ Martin Rabellino
jose.rabellino@hospitalitaliano.org.ar

[1] Interventional Radiology Department, Hospital Italiano de Buenos Aires, 4190 Peron St, P.O: C1181ACH, Buenos Aires, Argentina

Conclusión

El tratamiento endovascular de la AFC es precoz y debe adoptar una nueva clasificación que nos permita comparar lesiones semejantes

Esta propuesta es sencilla, permitiéndonos comparar mismas lesiones. Al clasificarlas post tratamiento nos permitira en el seguimiento a mediano y largo plazo, conocer resultados específicos según el tipo de lesión tratada