



APPROCCI IBRIDI IN CHIRURGIA VASCOLARE

LUCA TRAINA

Sabato 1 Dicembre 2012

**U.O. CHIRURGIA VASCOLARE ED ENDOVASCOLARE
UNIVERSITA' DEGLI STUDI DI FERRARA
*Responsabile U.O. Dott. Francesco Mascoli***

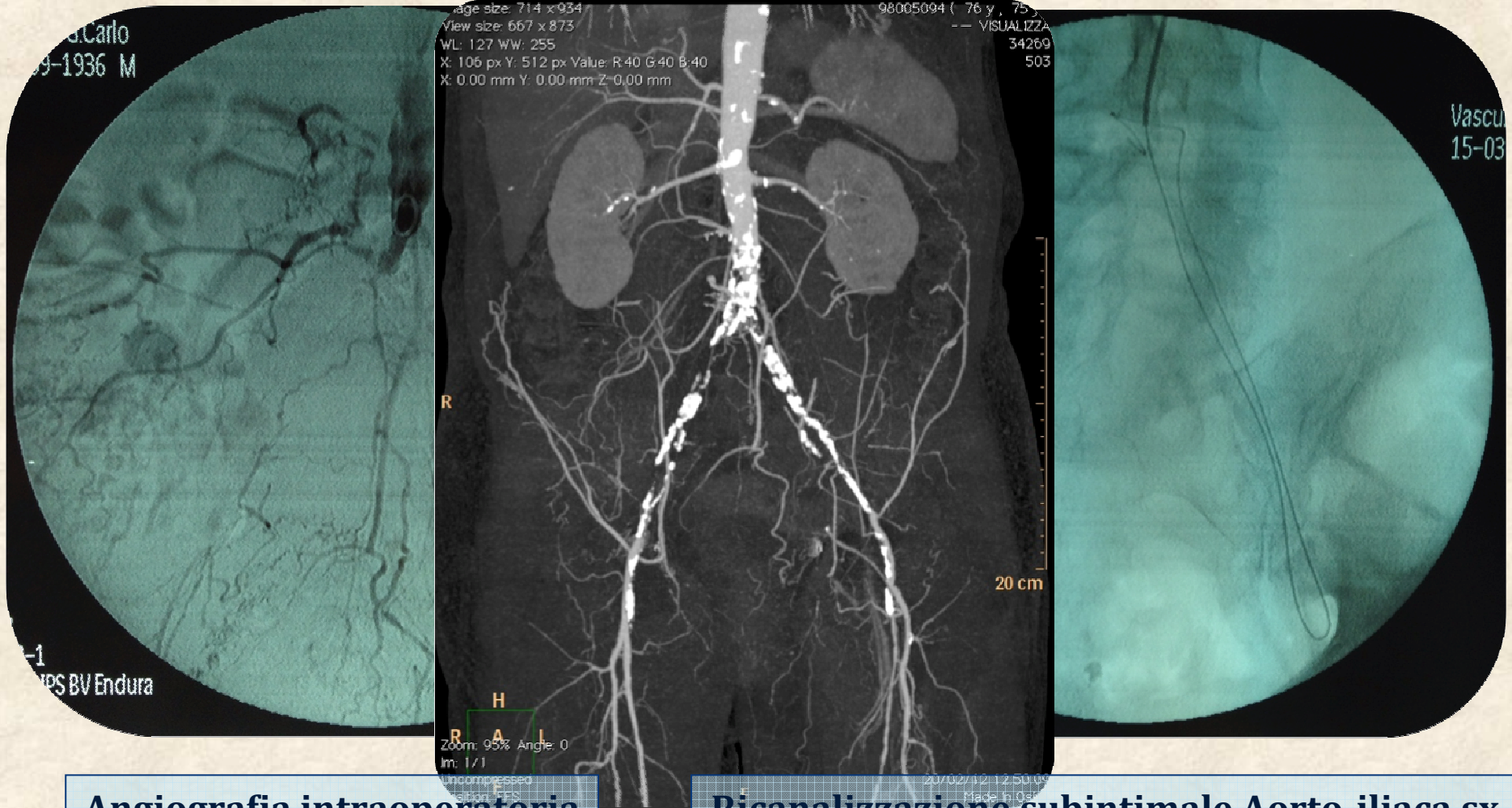


Il trattamento Endovascolare a supporto della Chirurgia

- Limitare l'invasività del trattamento chirurgico
- Possibilità di trattare Pz ad elevato rischio chirurgico
- Trattamento in condizioni anatomiche sfavorevoli
- Migliorare l'outcome di trattamenti chirurgici complessi



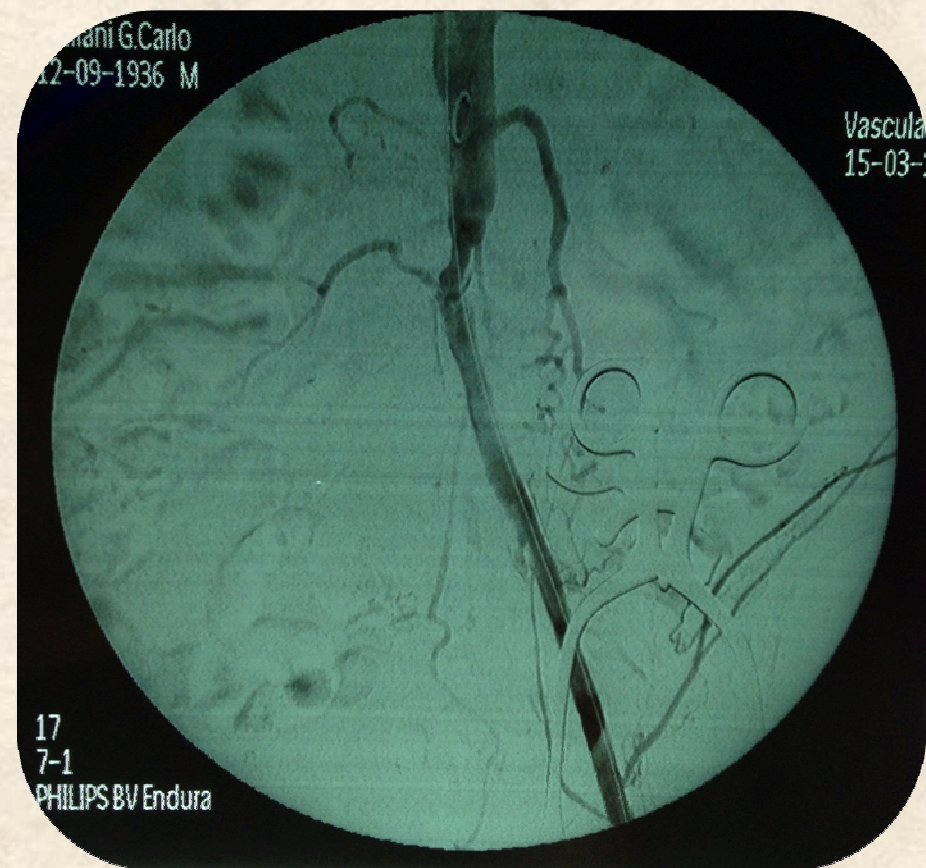
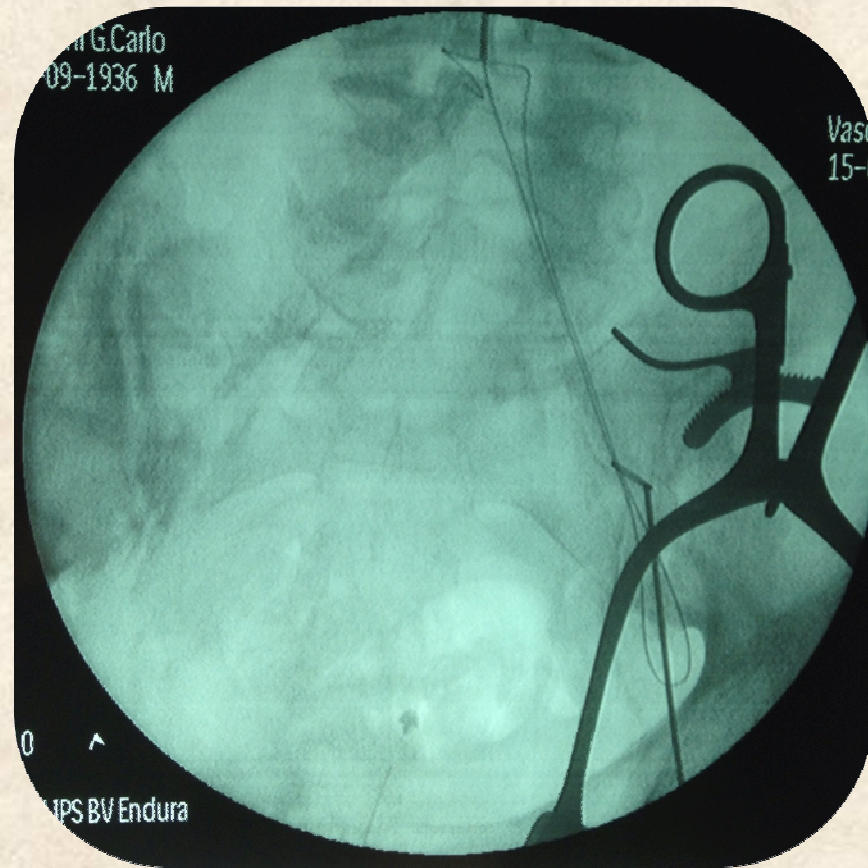
Chirurgia Aorto-Iliaca



Angiografia intraoperatoria

Ricanalizzazione subintimale Aorto-iliaca sx





Tea iliaca esterna a cielo coperto con Anello di Vollmar



RICANALIZZAZIONE ASSE ILIACO-FEMORALE

Tempo chirurgico

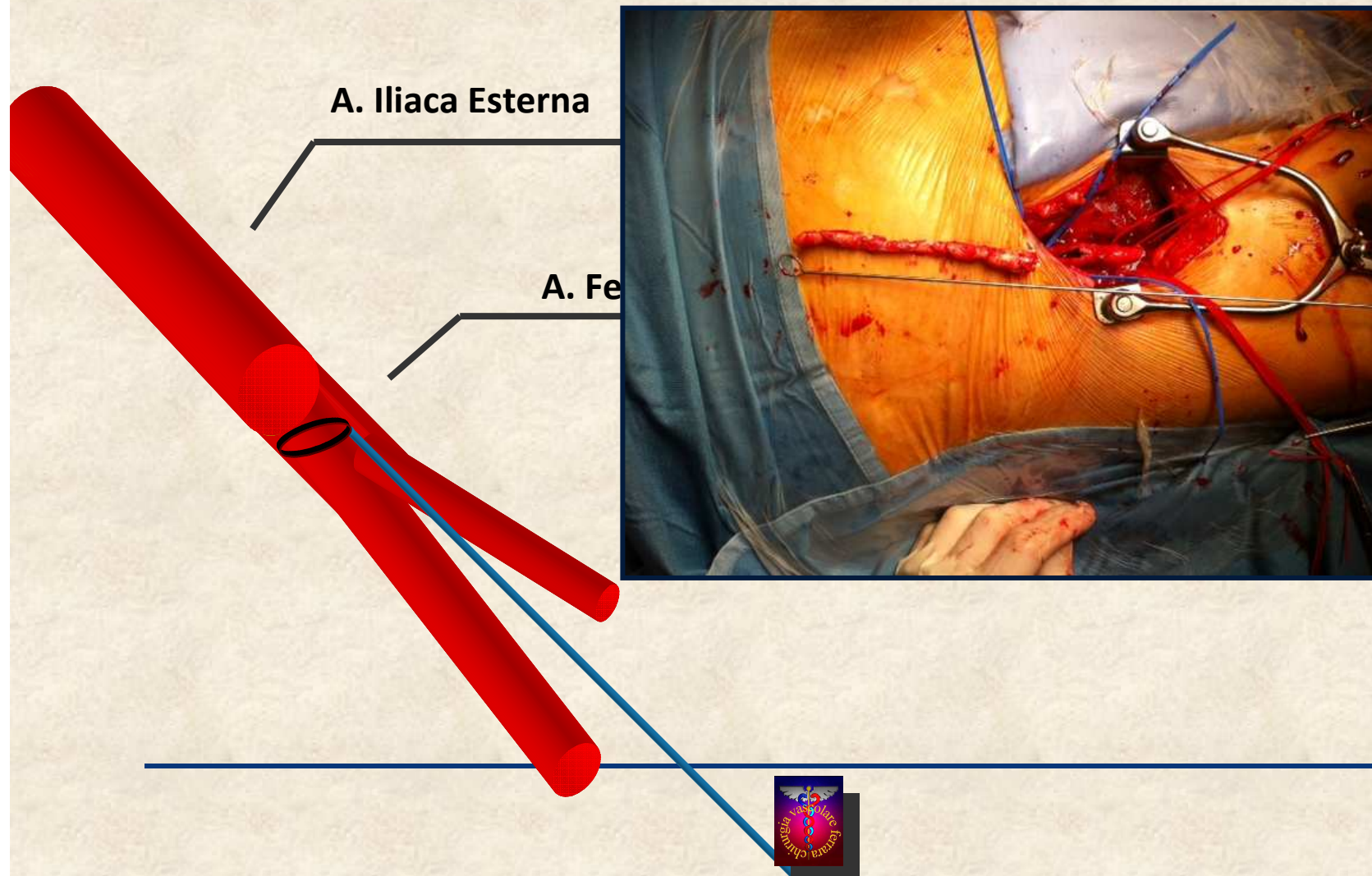
Placca ateromasica

TEA diretta A.Femorale Comune
+
A. Femorale Profonda



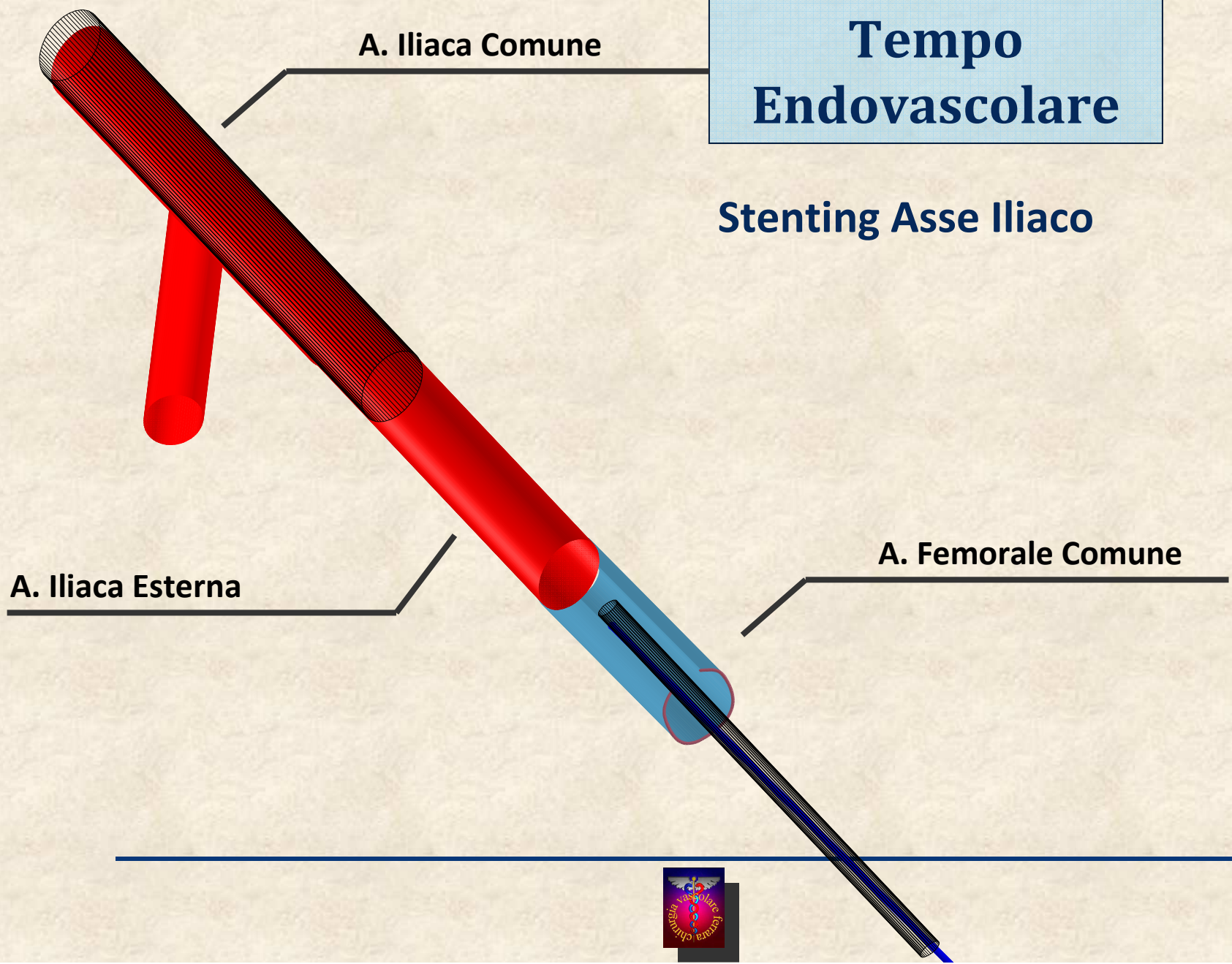
Tempo chirurgico

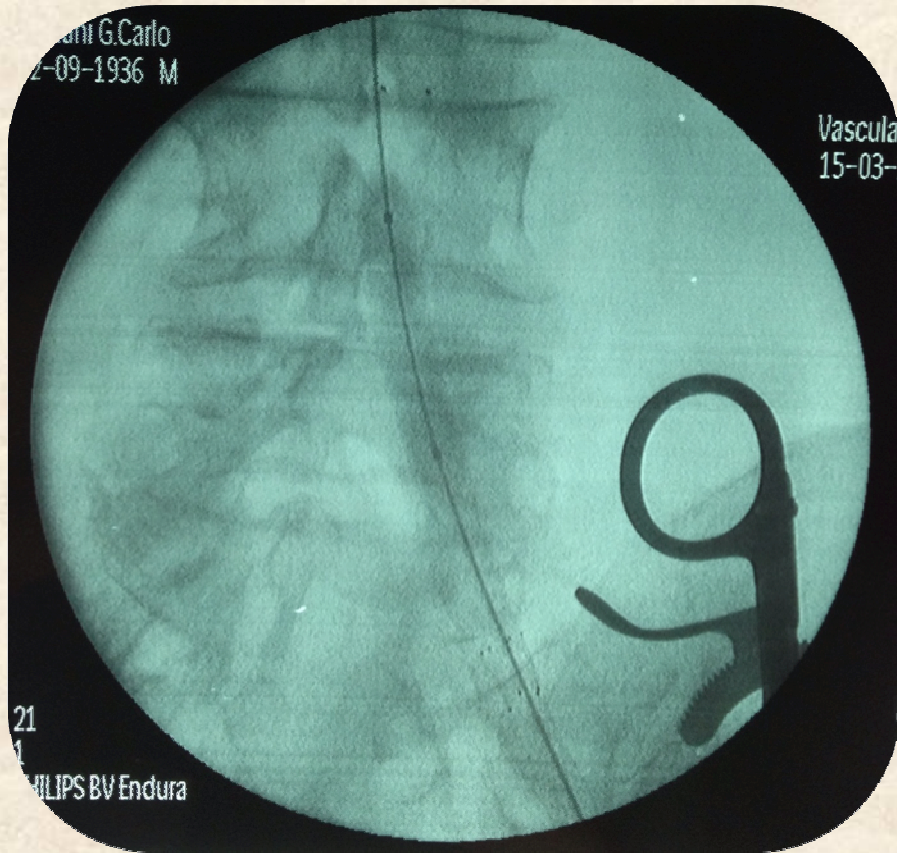
TEA remota Asse Iliaco con anello di Vollmar (cielo coperto)



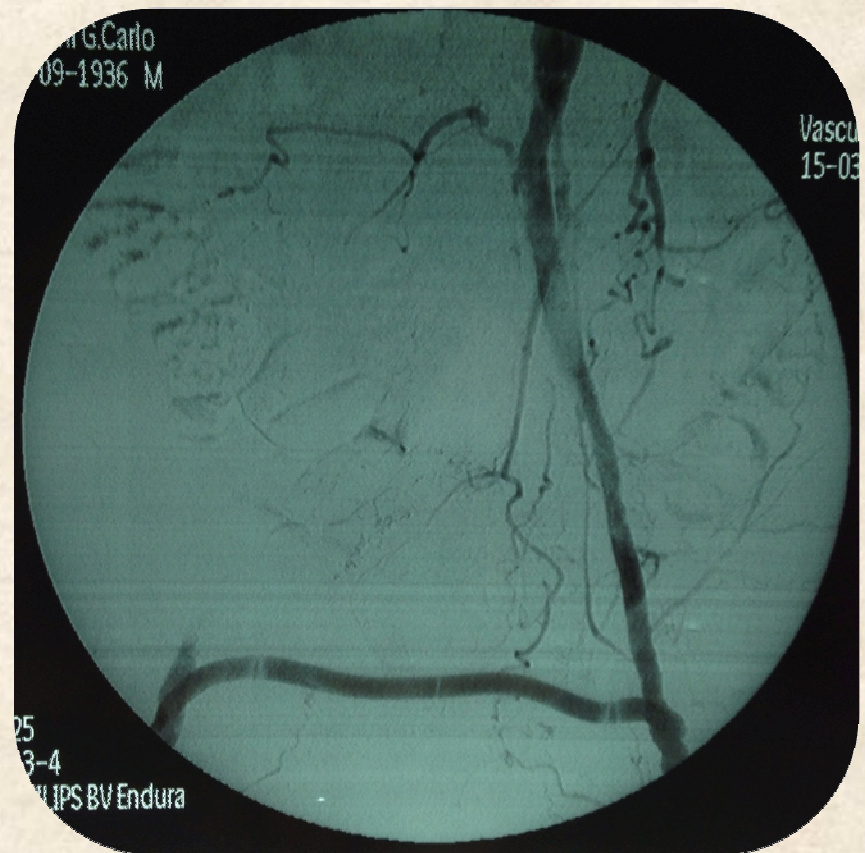
Tempo Endovascolare

Stenting Asse Iliaco





Stenting aorto-iliaco

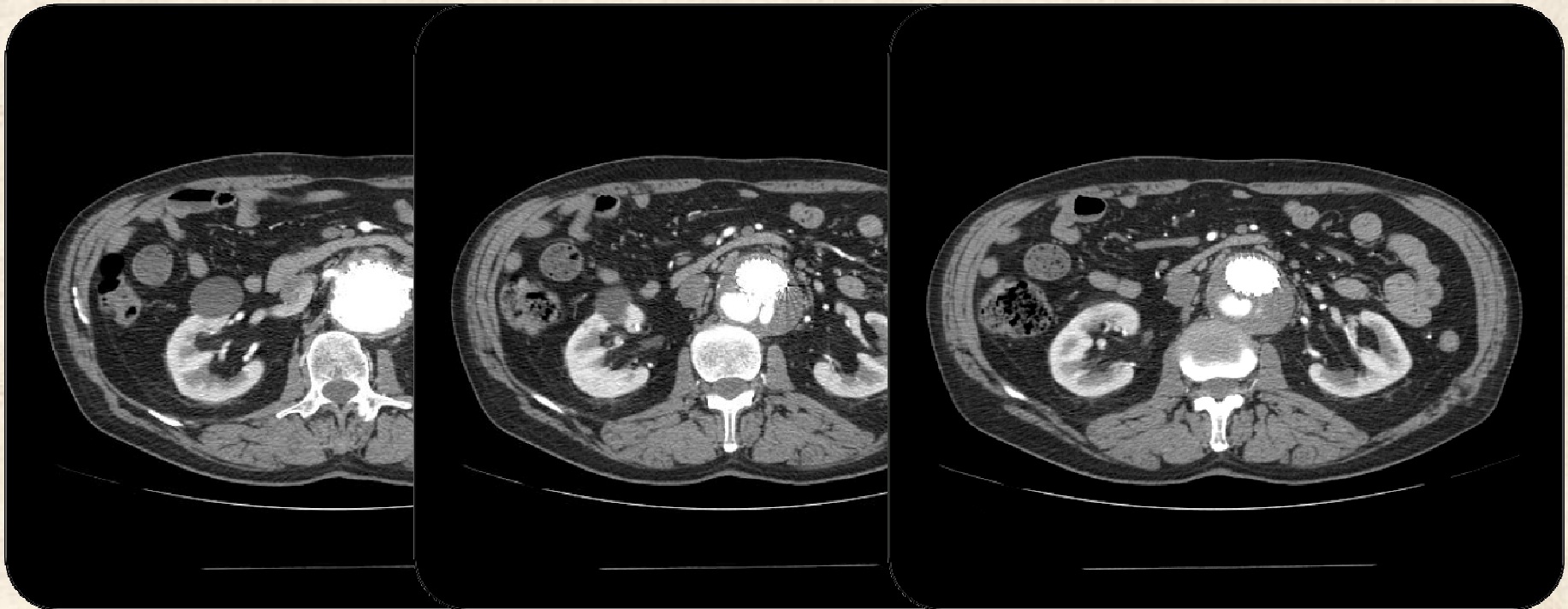


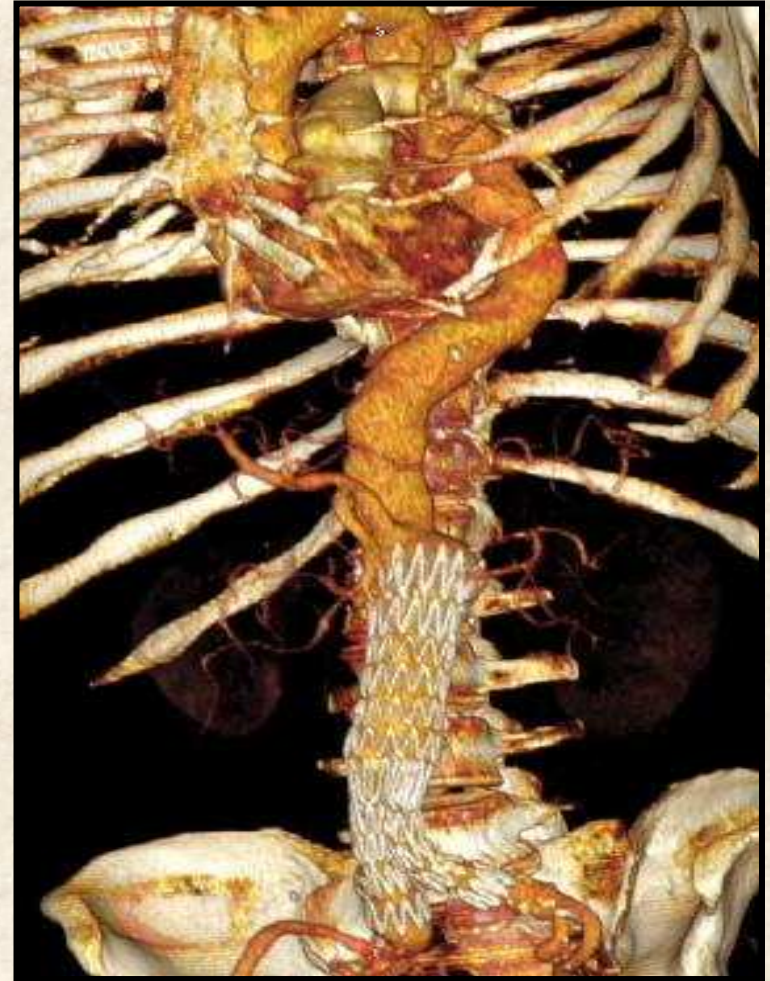
Cross-Over fem-fem sx-dx
in e-PTFE Tipo Propaten da 8mm



TAA

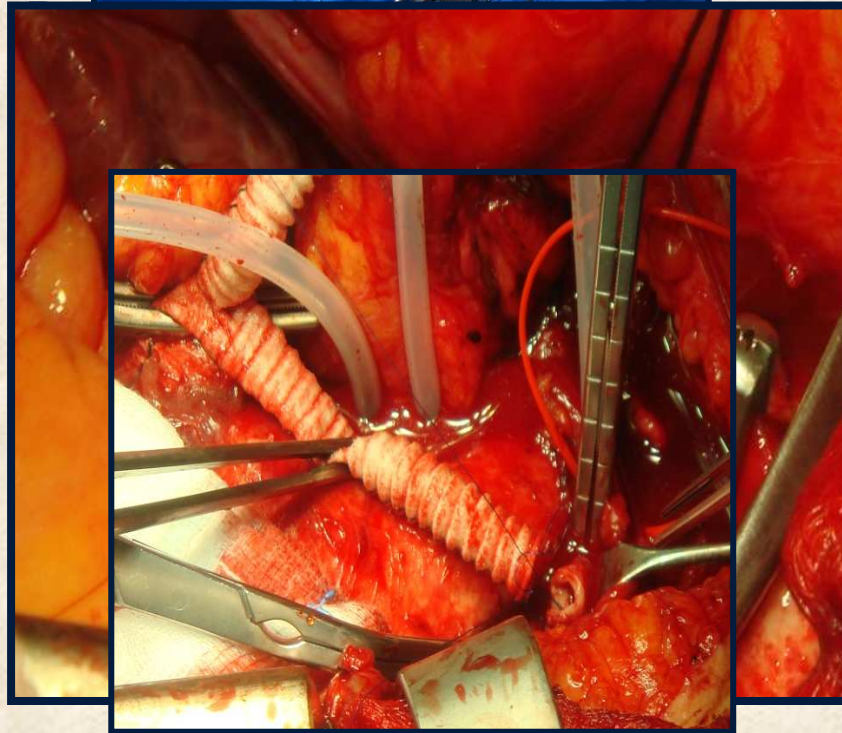
Evoluzione in TAA Tipo IV di patologia aneurismatica trattata con endoprotesi Zenith-Cook con endoleak di tipo I (prossimale)





Tempo chirurgico

- **Accesso Retroperitoneale sinistro**
- **Clampaggio Tangenziale dell'aorta**
iux



... trattamento AAA con accesso Retroperitoneale

REVIEW ARTICLES

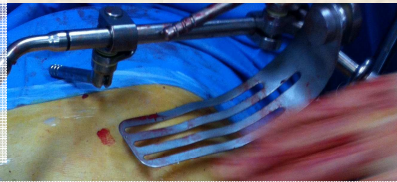
Richard P. Cambria, MD, Section Editor

The retroperitoneal approach to the abdominal aorta in the endovascular era

Christopher P. Twine, MD, FRCS, Ian F. Lane, MD, FRCS, and Ian M. Williams, MD, FRCS, *Cardiff, Wales, United Kingdom*

The aim of this review was to assess the place of retroperitoneal (RP) aortic surgery for abdominal aortic aneurysms (AAAs) in the endovascular era and evaluate the evidence supporting it in preference to the more traditional transperitoneal approach. As endovascular graft technology improves, open aortic surgery is declining. AAAs unsuitable for endovascular aneurysm repair are, by definition, anatomically challenging. The RP approach is especially suited to anatomic challenges such as those posed by contemporary open AAA because it facilitates access to the suprarenal aorta. There is evidence that the RP approach reduces postoperative morbidity and length of stay compared with transperitoneal approaches. The evidence available indicates that the RP approach should be the first considered for any AAA unsuitable for endovascular aneurysm repair; however, the technique is more difficult to learn and less commonly practiced than the transperitoneal approach. Combined with a decrease in training hours in the United Kingdom, there is a real threat that the RP technique will only be performed by an ever-decreasing number of enthusiasts. (*J Vasc Surg* 2012;56:834-8.)

... concludendo

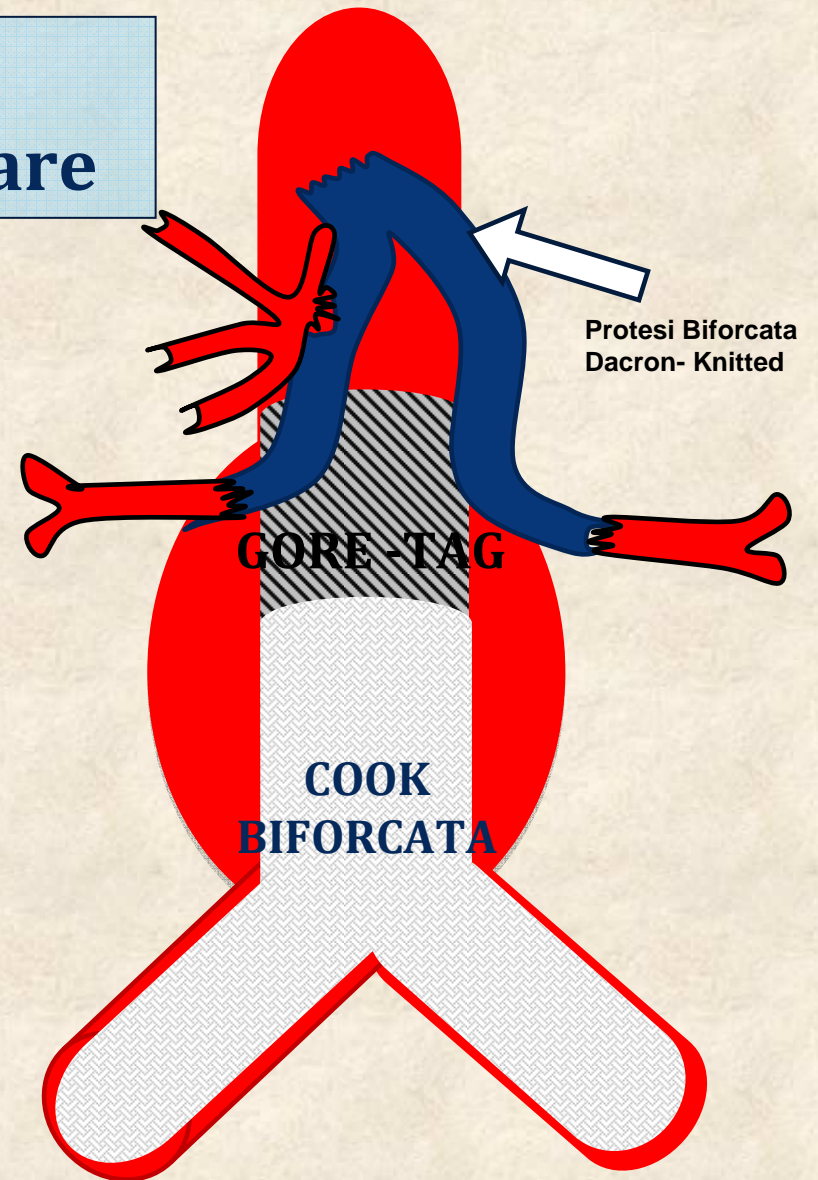
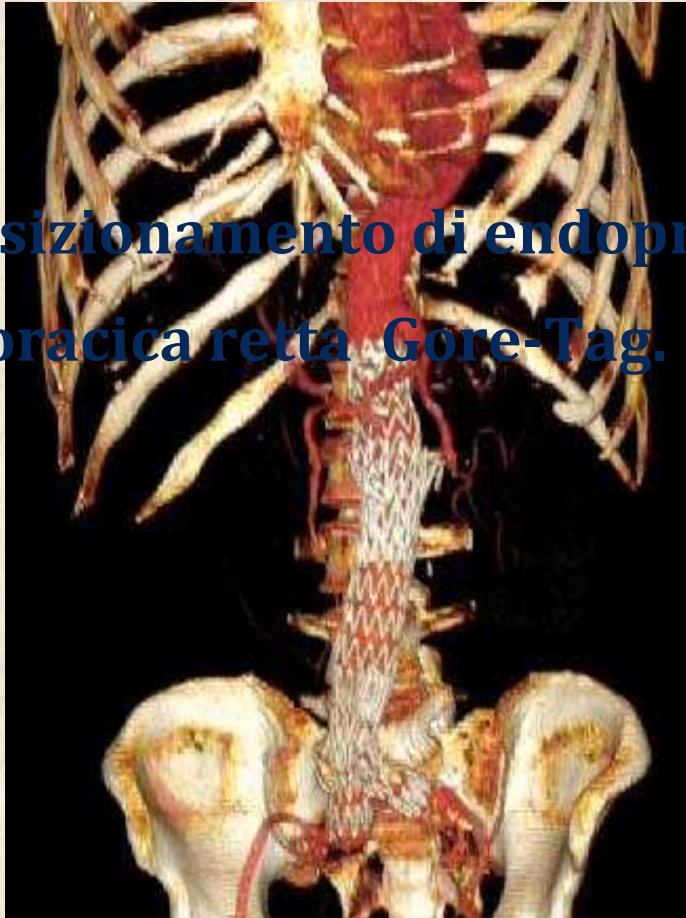


- **A Ferrara sono stati trattati oltre 400 pazienti con tale metodica ...per noi non è semplicemente una procedura di routine...è la nostra prima scelta!**
- ...siccome il training post-graduato è complesso sempre meno chirurghi lo utilizzano!

The retroperitoneal approach to the abdominal aorta in the endovascular era. Christopher P. Twine, MD, FRCS, Ian F. Lane, MD, FRCS, and Ian M. Williams, MD, FRCS, Cardiff, Wales, United Kingdom (J Vasc Surg 2012;56:834-8.)

Tempo Endovascolare

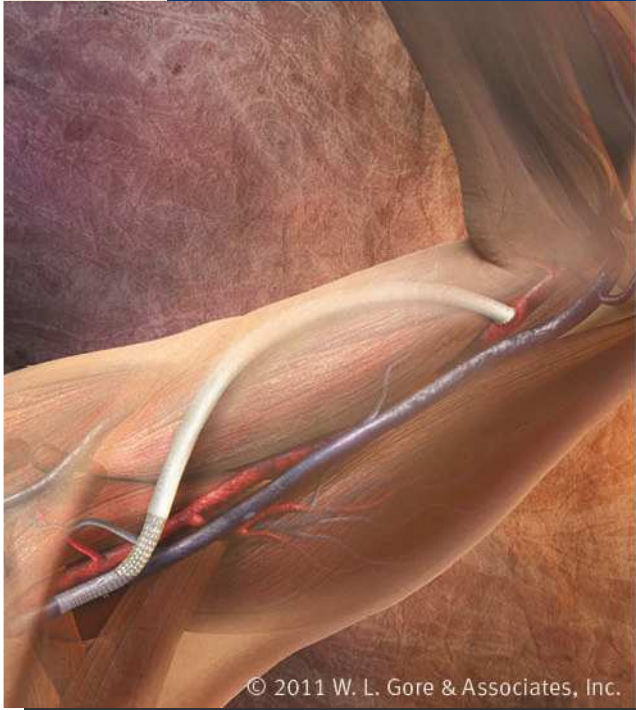
- Posizionamento di endoprotesi toracica retta Gore-Tag.





HYBRID

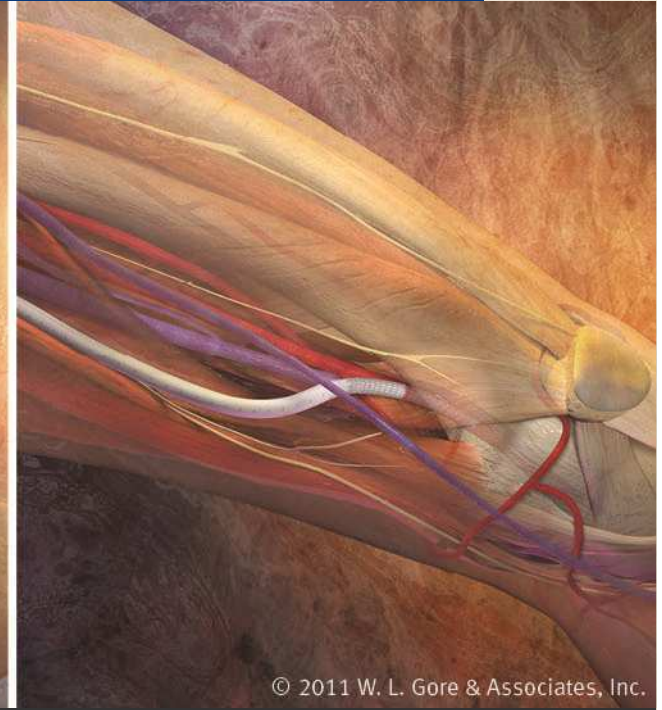
VASCULAR GRAFT
VASCULAR GRAFT



© 2011 W. L. Gore & Associates, Inc.



© 2011 W. L. Gore & Associates, Inc.

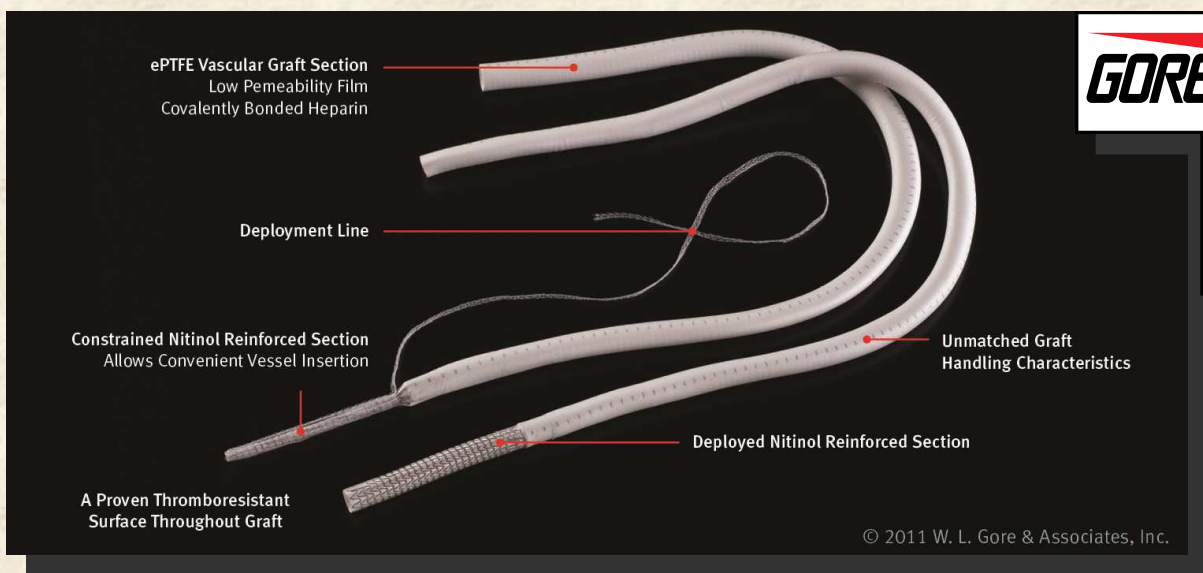


© 2011 W. L. Gore & Associates, Inc.



HYBRID

VASCULAR GRAFT
VASCULAR GRAFT



CONFIGURATIONS

CATALOGUE NUMBER (US)	CATALOGUE NUMBER (OUTSIDE US)	NITINOL REINFORCED SECTION	VASCULAR GRAFT SECTION
0650HYB0605A	0650HYB0605	6 mm x 5 cm	6 mm x 50 cm
0650HYB0610A*	0650HYB0610*	6 mm x 10 cm	6 mm x 50 cm
0650HYB0705A	0650HYB0705	7 mm x 5 cm	6 mm x 50 cm
0650HYB0710A*	0650HYB0710*	7 mm x 10 cm	6 mm x 50 cm
0650HYB0805A	0650HYB0805	8 mm x 5 cm	6 mm x 50 cm
0650HYB0810A*	0650HYB0810*	8 mm x 10 cm	6 mm x 50 cm
0650HYB0905A	0650HYB0905	9 mm x 5 cm	6 mm x 50 cm
0650HYB0910A*	0650HYB0910*	9 mm x 10 cm	6 mm x 50 cm

* Available Fall 2012

© 2011 W. L. Gore & Associates, Inc.



Configurazioni

CONFIGURATIONS

CATALOGUE NUMBER (US)	CATALOGUE NUMBER (OUTSIDE US)	NITINOL REINFORCED SECTION	VASCULAR GRAFT SECTION
0650HYB0605A	0650HYB0605	6 mm x 5 cm	6 mm x 50 cm
0650HYB0610A*	0650HYB0610*	6 mm x 10 cm	6 mm x 50 cm
0650HYB0705A	0650HYB0705	7 mm x 5 cm	6 mm x 50 cm
0650HYB0710A*	0650HYB0710*	7 mm x 10 cm	6 mm x 50 cm
0650HYB0805A	0650HYB0805	8 mm x 5 cm	6 mm x 50 cm
0650HYB0810A*	0650HYB0810*	8 mm x 10 cm	6 mm x 50 cm
0650HYB0905A	0650HYB0905	9 mm x 5 cm	6 mm x 50 cm
0650HYB0910A*	0650HYB0910*	9 mm x 10 cm	6 mm x 50 cm

* Available Fall 2012

© 2011 W. L. Gore & Associates, Inc.



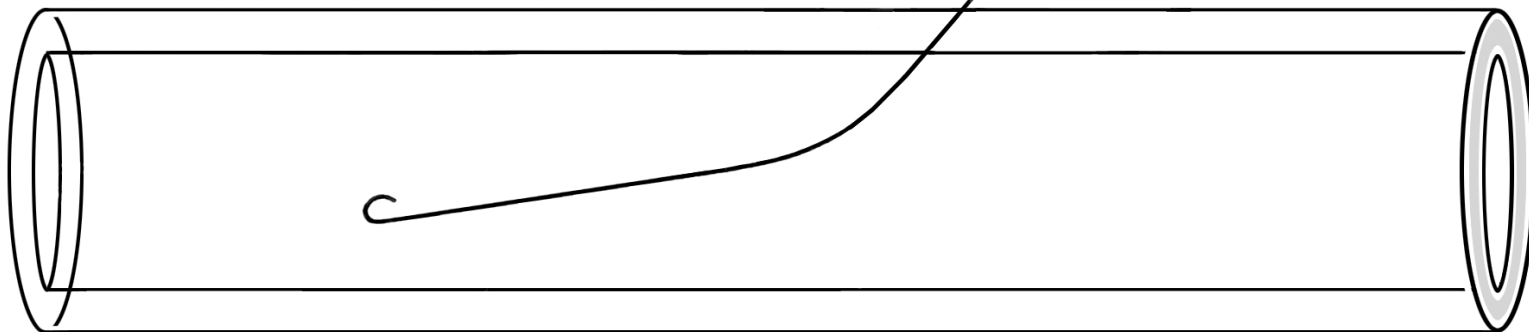
Principi Generali

Puntura del Vaso



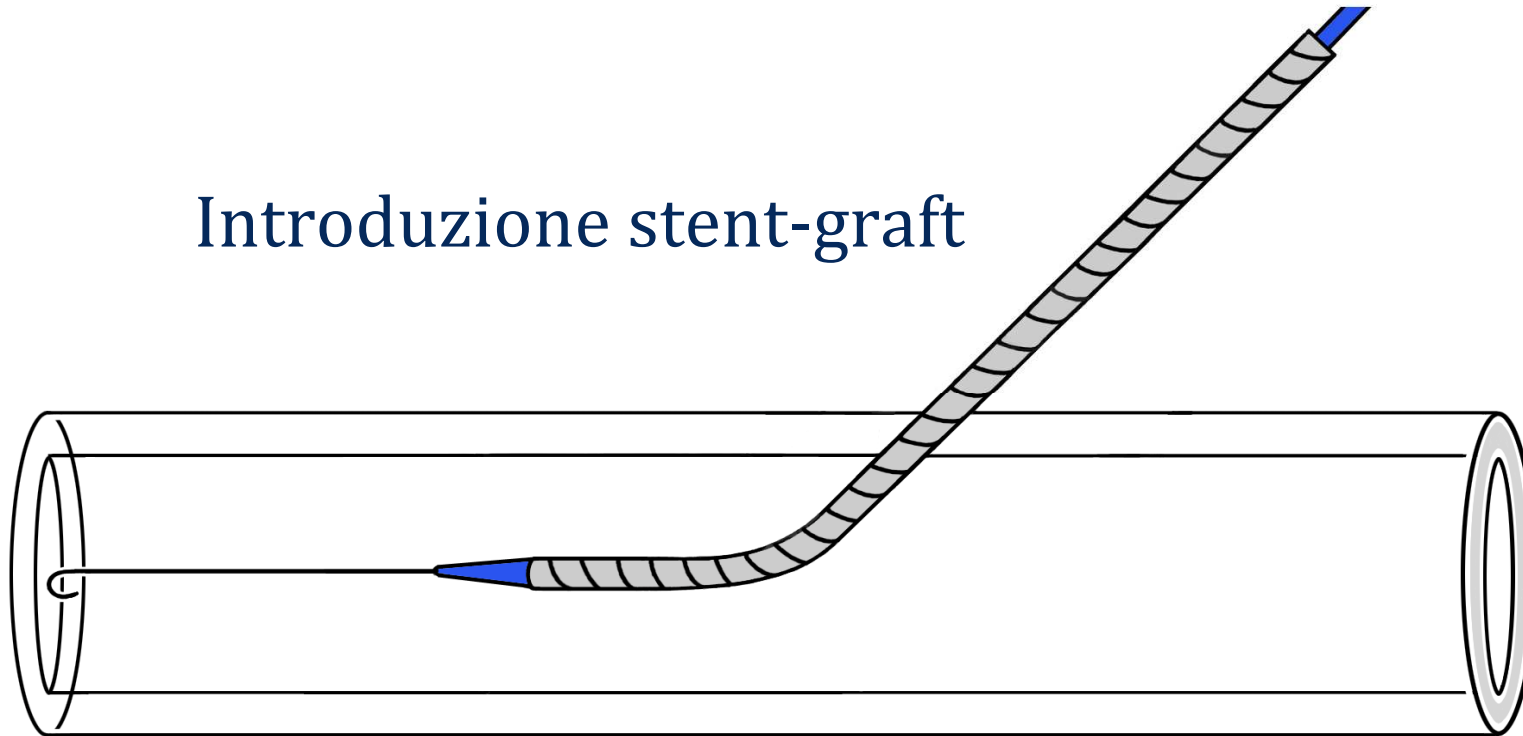
Principi Generali

Introduzione guida



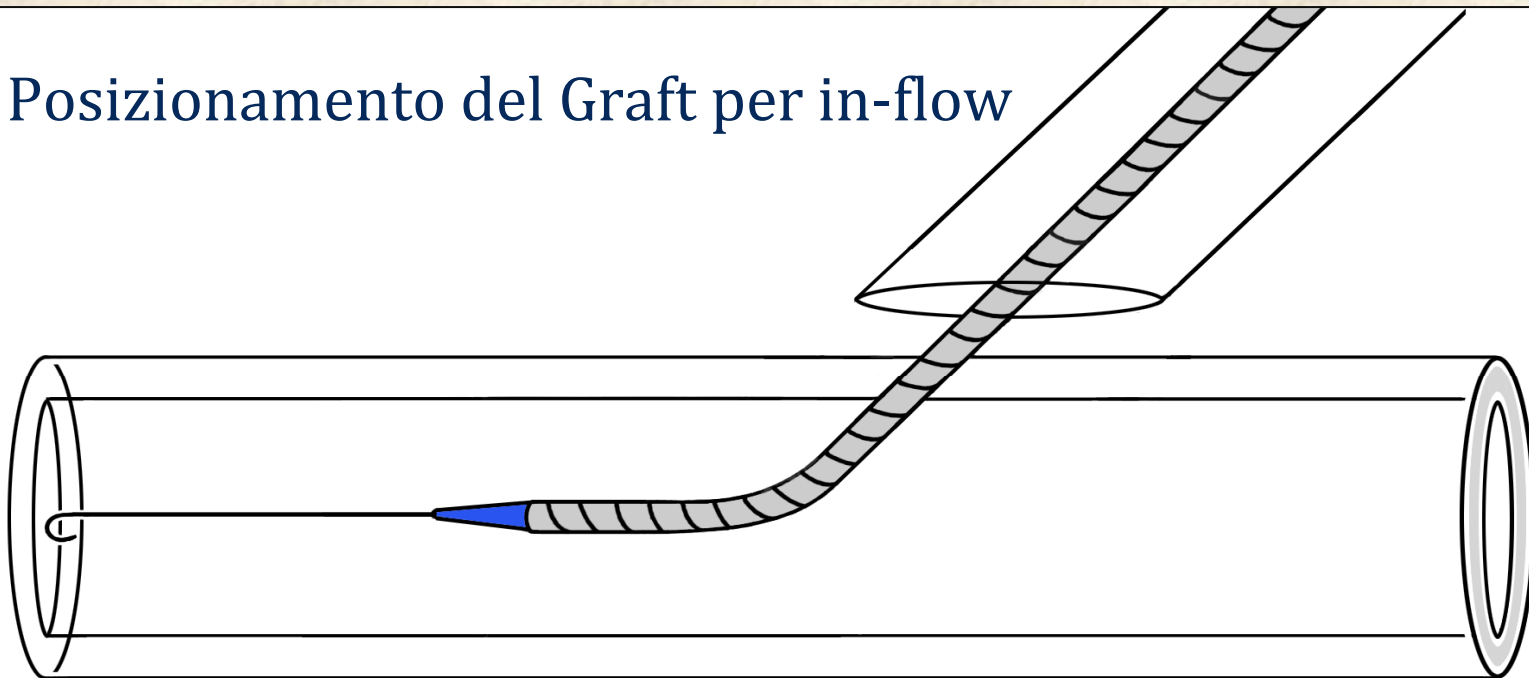
Principi Generali

Introduzione stent-graft



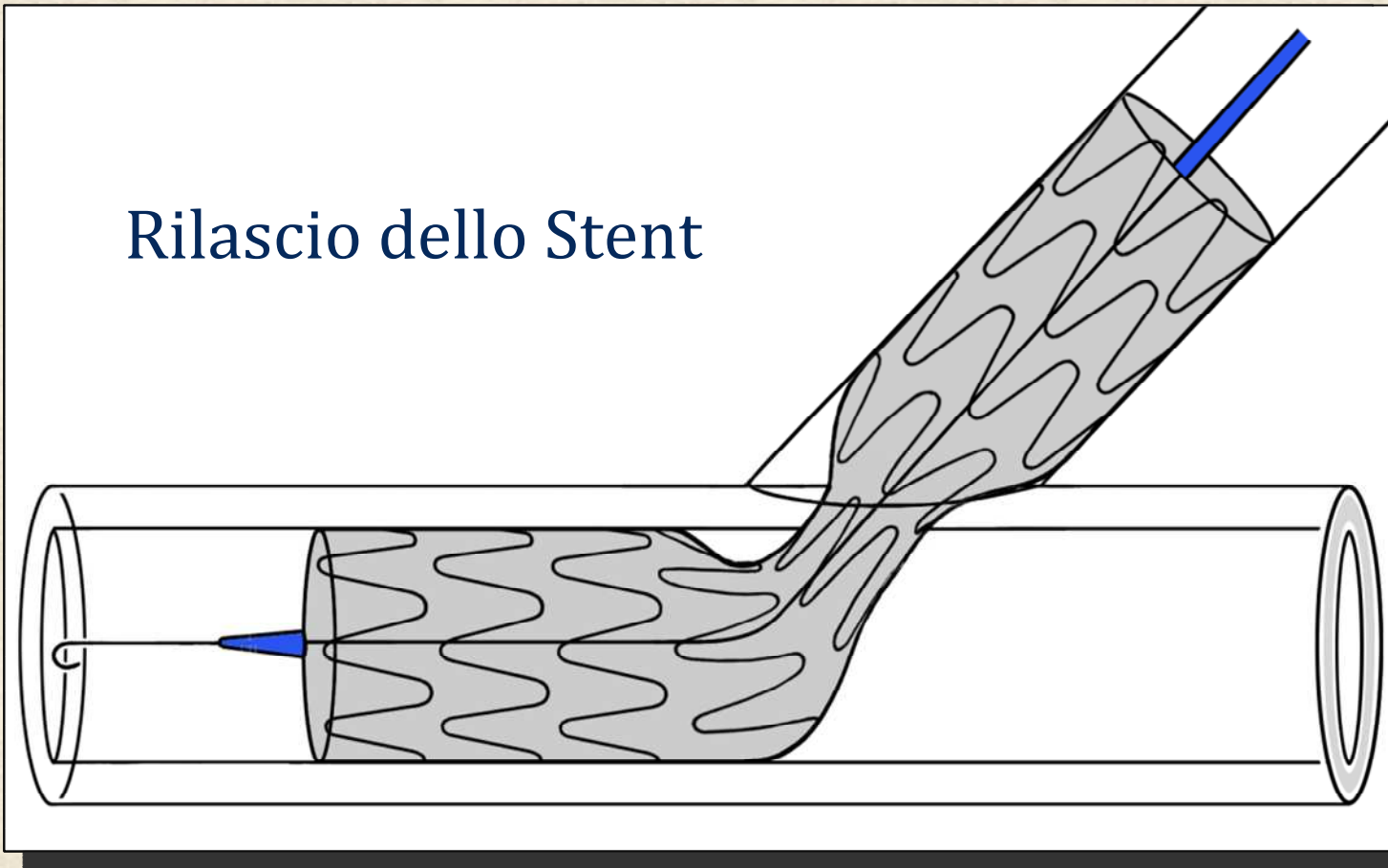
Principi Generali

Posizionamento del Graft per in-flow



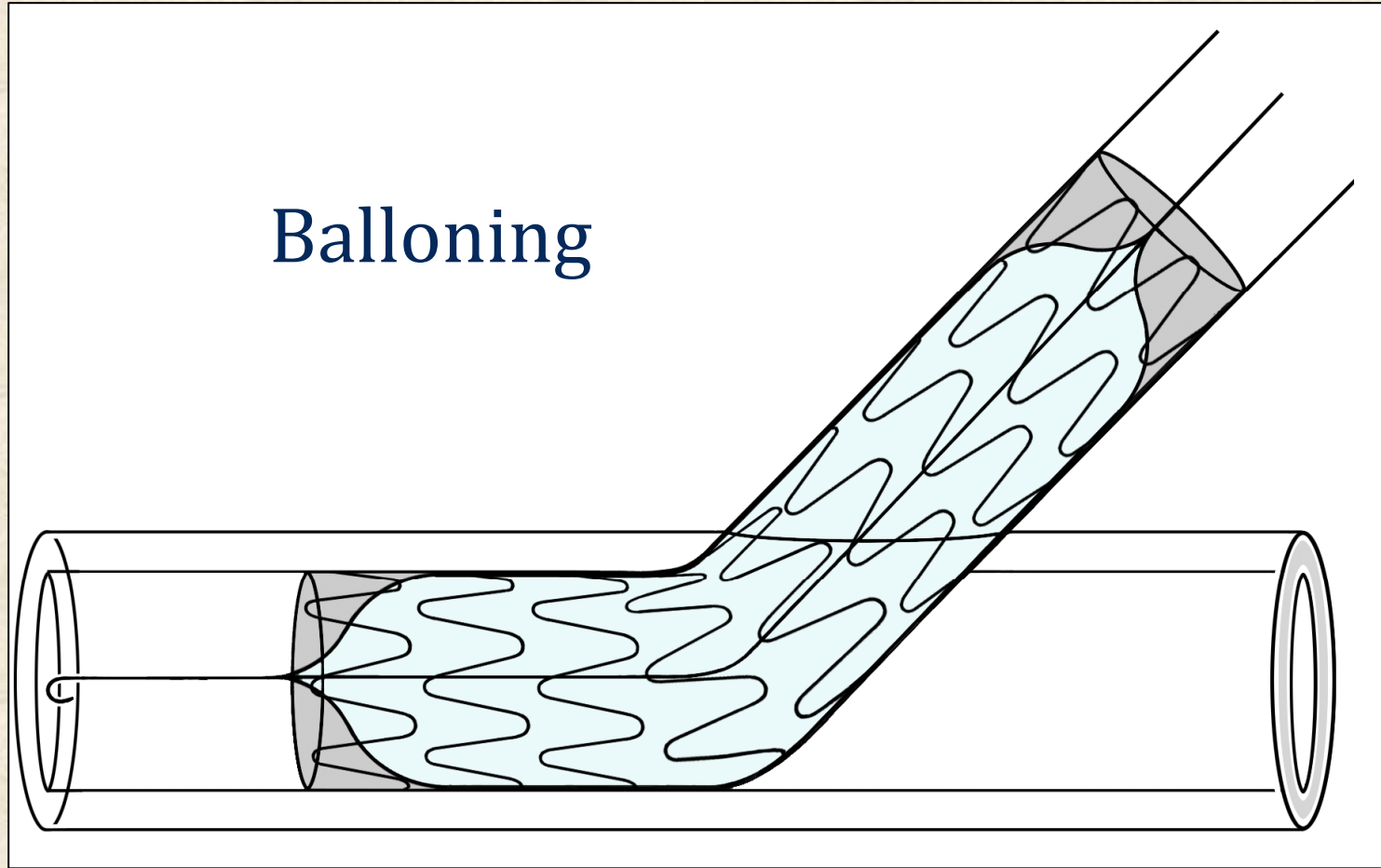
Principi Generali

Rilascio dello Stent



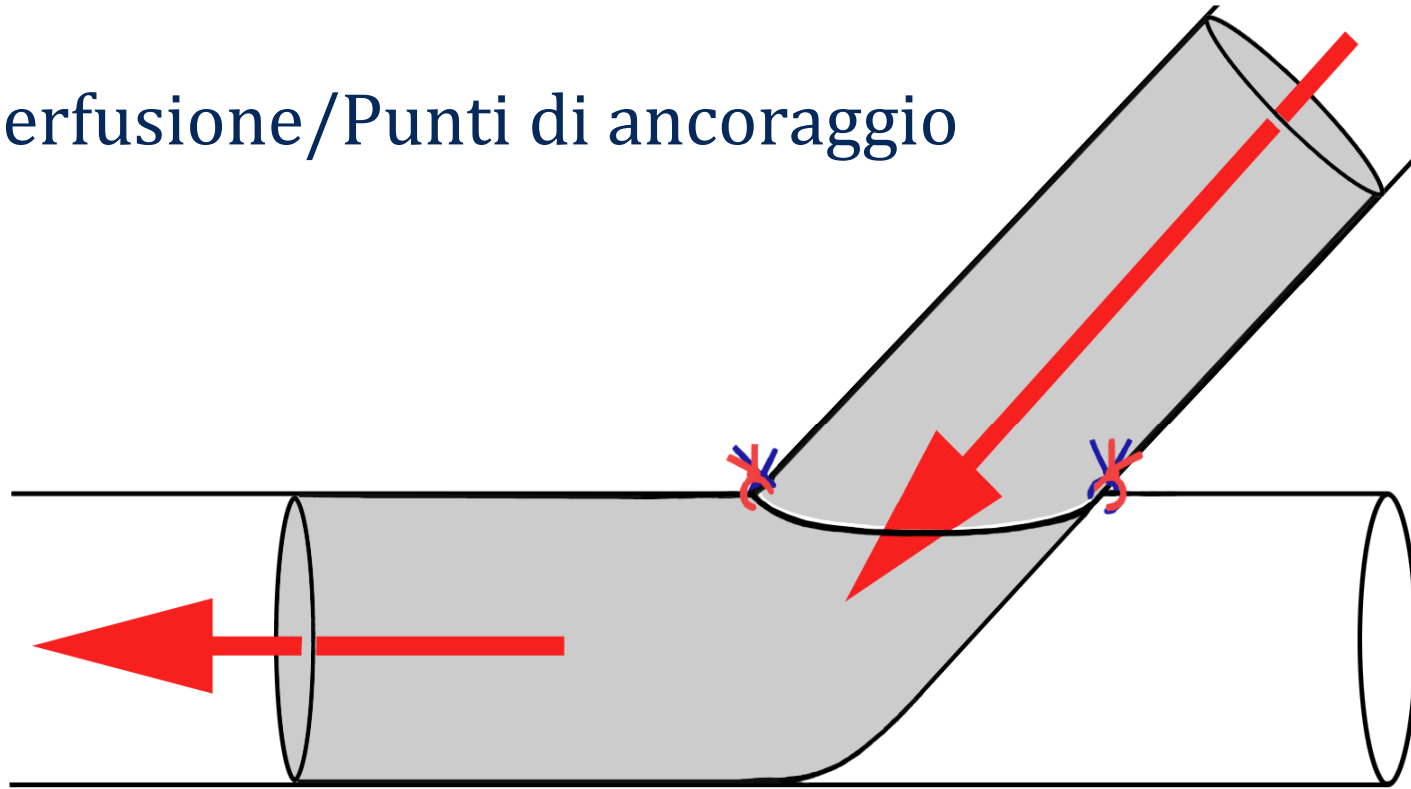
Principi Generali

Balloning

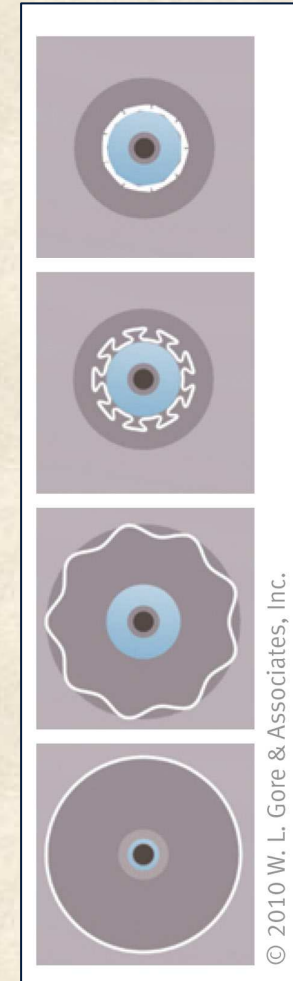
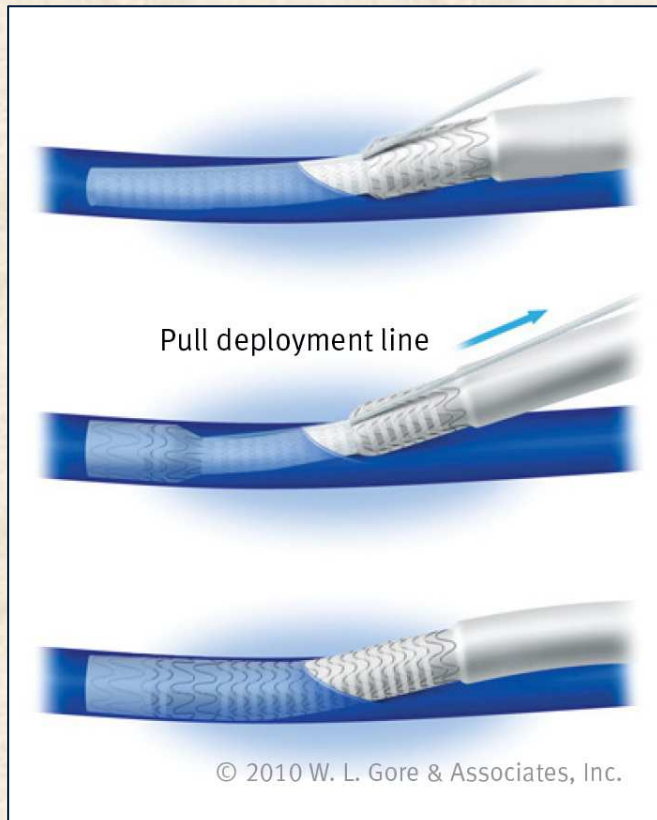


Principi Generali

Riperfusione/Punti di ancoraggio



The nitinol reinforced section should be introduced into the vessel by at least 2.5 cm

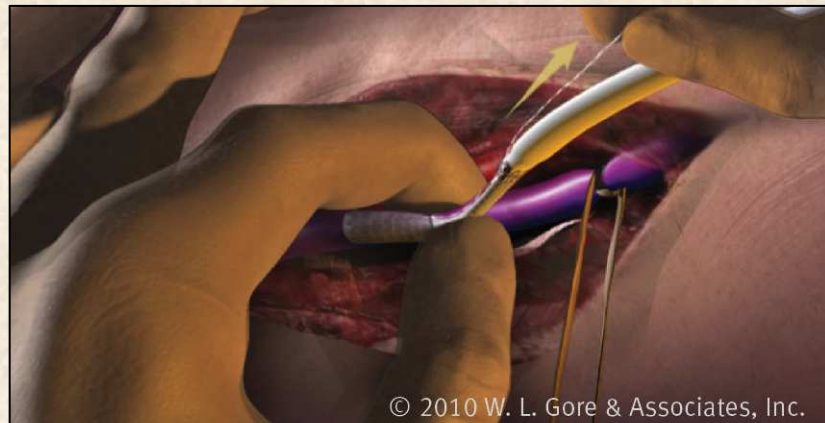


**Radial
Deployment**



Modalità d'impianto

- Standard



- Over the wire



Vantaggi della tecnica ibrida

- Evitare il clampaggio
- Ridurre tempo di ischemia
- Assenza di sanguinamento anastomotico
- Minor dissezione dei vasi
- Accesso in siti ostili

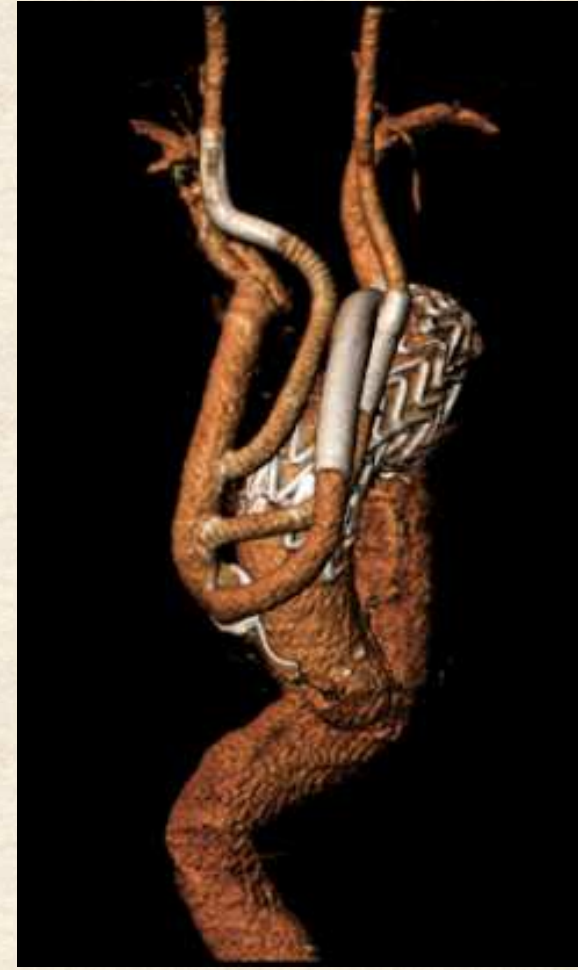
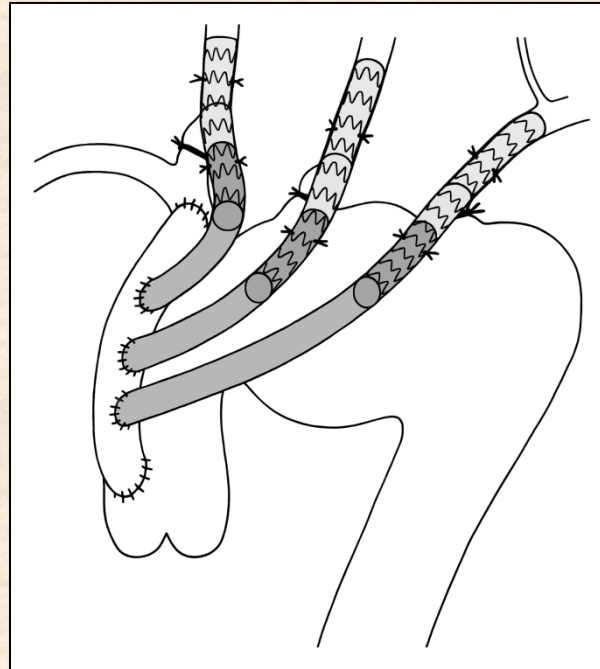


POSSIBILITA' APPLICATIVE

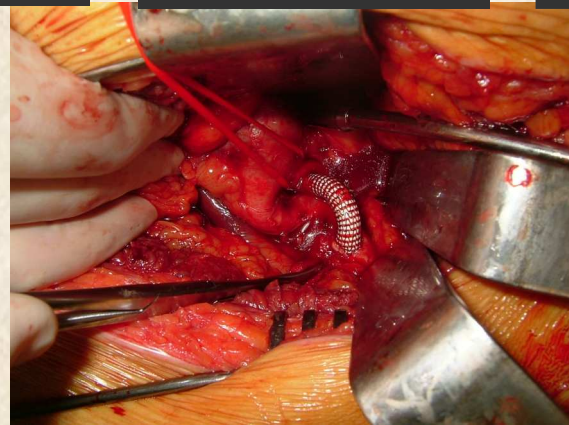
- Arterie viscerali**
- Tronchi Sopraortici**
- Arteria Ipogastrica**
- Assi Iliaco-femorali**
- Anastomosi aortiche**



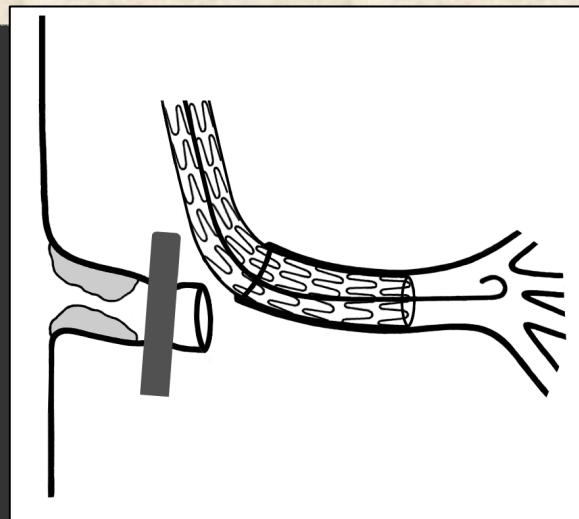
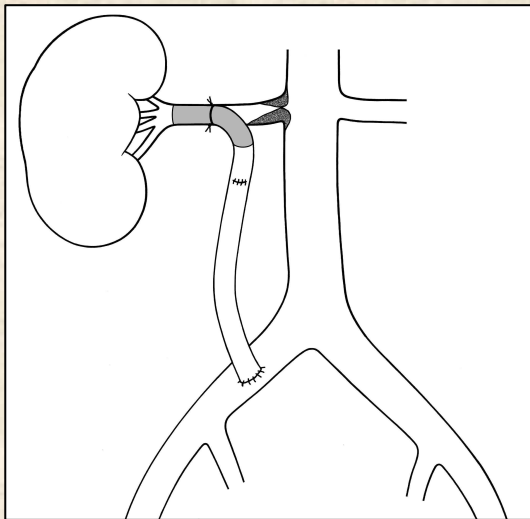
Tronchi Sopraortici



Arteria Ipogastrica



Vasi Viscerali



TECHNICAL NOTE

Laparoscopy-Assisted Hybrid Technique for Renal Revascularization Using an Endovascular Graft: Report of Three Cases

Chris N. Bakoyannis, Catherine Cagianos*, Sergej Wasiljev*, Laslo Pinter*, and Ralf Kolvenbach**

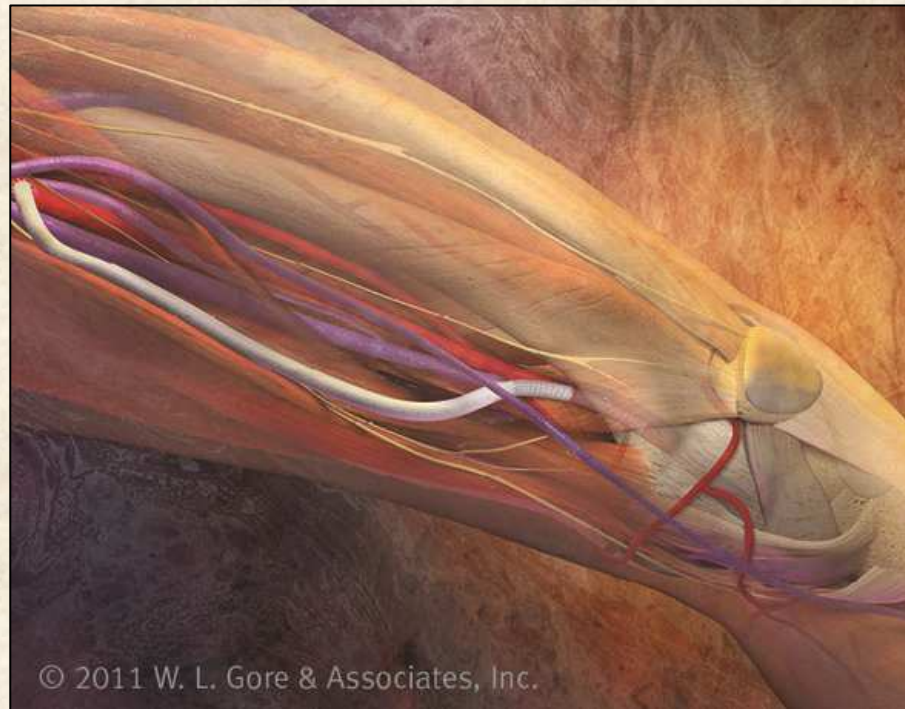
Atherosclerotic renal artery stenosis (RAS) is relatively common and often associated with hypertension and progressive renal insufficiency. Technical improvements of interventional endovascular tools have led to a more widespread use of endoluminal renal artery revascularization. Sometimes an endovascular procedure for (RAS) may fail. We report 3 cases successfully treated with laparoscopic assisted aortorenal bypass using an endovascular graft.

A New Sutureless Telescoping Anastomotic Technique for Major Aortic Branch Revascularization With Minimal Dissection and Ischemia

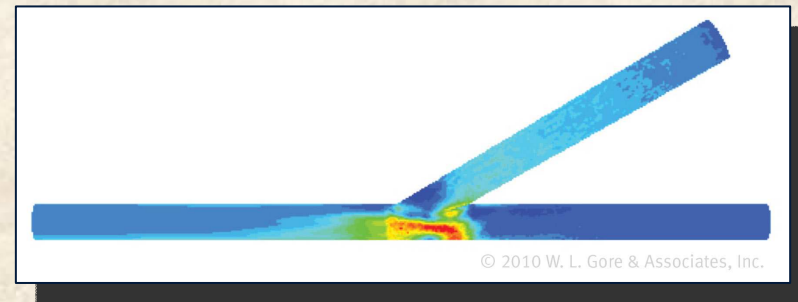
Zoran Rancic, MD, Dieter Mayer, MD*, Thomas Pfammatter, MD†, Thomas Frauenfelder, MD‡, Volkmar Falk, MD*, Hideki Ueda, MD*, Mario Lachat, MD*, and Frank J. Veith, MD*‡*



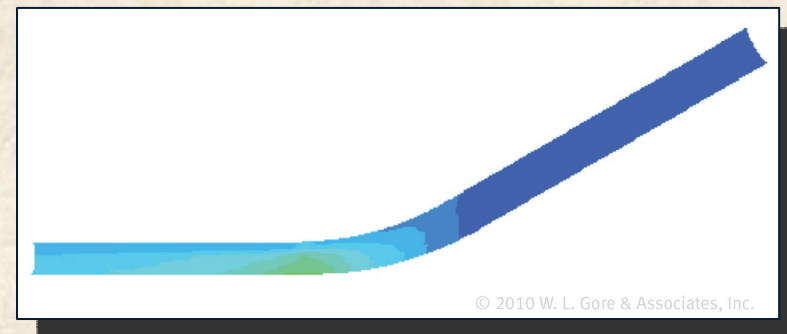
Asse Femoro-Popliteo



Anastomosi Convenzionale

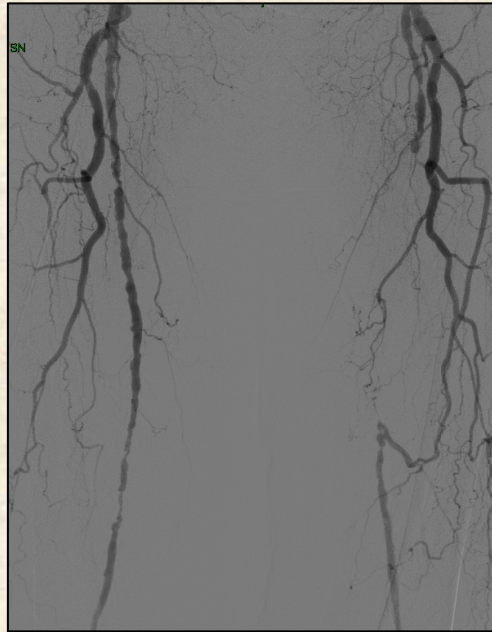


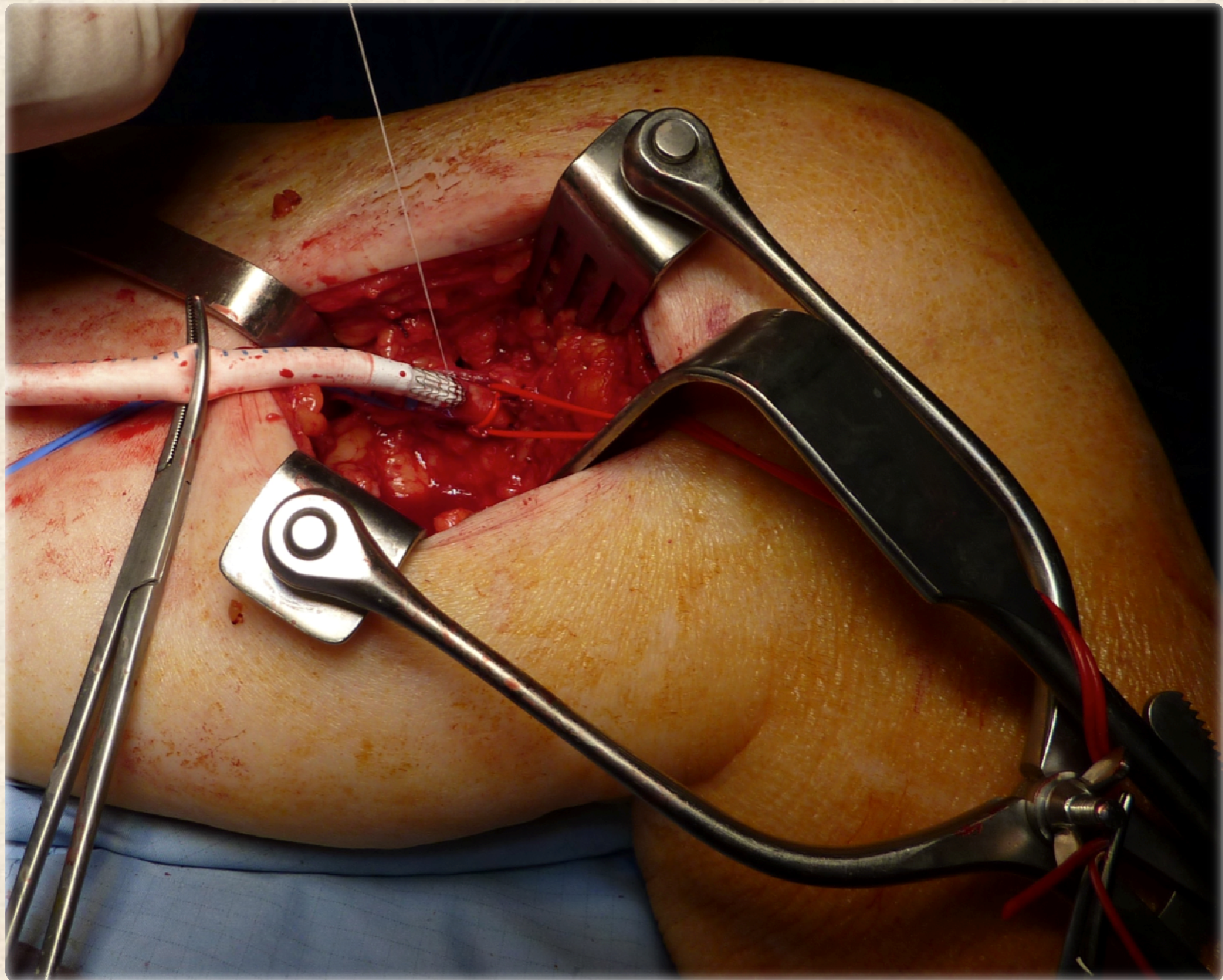
Tecnica Hybrid



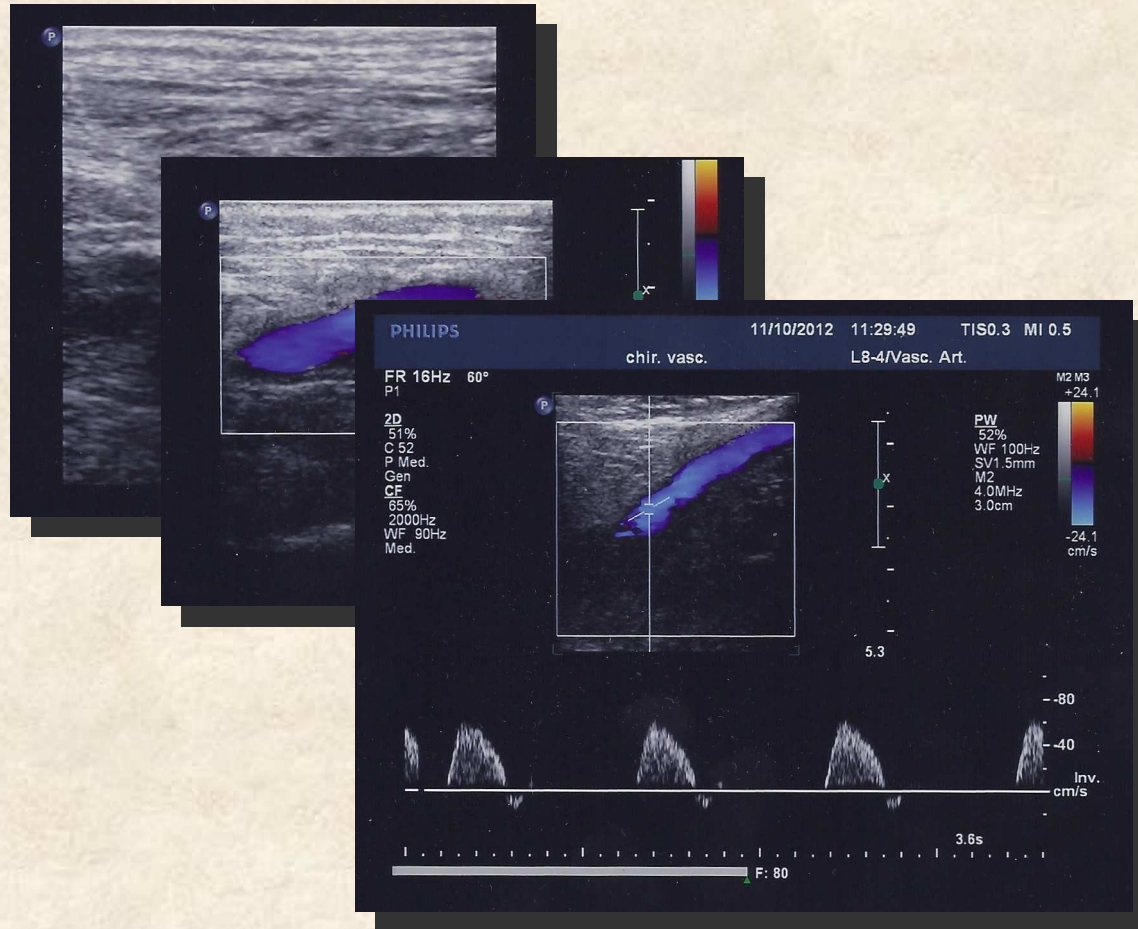
Caso clinico

- Pz 77 aa, F
- IRC in trattamento emodialitico trisettimanale
- DM ID
- ACOP IV sec. La classificazione di L-F arto inf. sx





Controllo post-operatorio



CONCLUSIONI

- **Con l'avvento delle procedure endovascolari ci troveremo sempre più spesso a dover trattare casi complessi**
- **Il solo uso di tecniche endovascolari non consente ancora il trattamento definitivo di particolari casi complessi**
- **Le nuove protesi ibride offrono al chirurgo esperto nuove prospettive di trattamento**





Grazie

