Impact of exclusion criteria on patient selection for endovascular abdominal aortic aneurysm repair

Jeffrey P. Carpenter, M.D.1, Richard A. Heaney, M.D.1, Clyde F. Barkley, M.D.1, Michael A. Goldberg, M.D.1,2, Mark C. Mitchell, M.D.1, Osmirio E. Velasquez, M.D.1,2 and Ronald M. Fierman, M.D.1,2, Philadelphia, Pa

Carpenter JVS 2001
1) Iliac arteries that are too small.
2) Iliac arteries that are too angulated or tortuous.
3) Iliac arteries that are too big.

*Calcification is not a problem in and of itself, but it can make dealing with these other issues much more complicated.*

**Preoperative Imaging**
Flank retroperitoneal exposure
Vertical, oblique or horizontal incision. Self retaining retractor is key to maintaining easy exposure.

**Conduits**
10mm dacron graft
In severely calcified iliac vessels
Balloon control
Stent grafts
Fluency
Atrium can be dilated up to greater diameters

**Conduits**
Flank retroperitoneal exposure
Vertical, oblique or horizontal incision.
Self retaining retractor is key to maintaining easy exposure.

**Stenotic Calcified Iliacs**
Conduits

Directly puncture graft

Ligate or ileofemoral bypass

Staged?

Endoconduits / “Pave and crack”

Atrium and Fluency Stent grafts

Dilate to:

9-10mm in external iliac

10-12mm in common iliac

Cover internal iliac

Morbidity with retroperitoneal procedures during endovascular abdominal aortic aneurysm repair

W. Anthony Lee, MD, Scott A. Beswick, MD, BD, Thomas E. Hines, MD, BD, G. Keith Chang, MD, Timothy C. Ryan, MD, and James A. Ferguson, MD, Galloway, NJ

Table 1. Technical procedural data

Tortuosity

Stiff guidewires

Brachial-femoral wires

1.5 days longer hospital stay

No mortality difference
Induced redundancy

Adjunctive Wallstenting

Excessive angulation/tortuosity
External iliac implantation

Aneurysmal Iliacs

Mehta JVS 2001
10% Buttock Claudication
10% Impotence

Wyers JVS 2002
**Key Points**

Use preoperative imaging to anticipate access problems and plan accordingly

Conduits should be ≥10mm

Tortuosity can usually be overcome with wires - unless heavily calcified

Sacrifice of unilateral internal iliac artery usually well tolerated - be careful occluding bilateral internal iliac arteries