Bell Bottom EVAR Is A Good Option
(In Most Circumstances)

Not to mention simpler & cheaper

Kim J Hodgson, MD
David Sumner Professor & Chair
Vascular & Endovascular Surgery
Southern Illinois University

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- Disclosures -

I have no conflicts of interest to disclose.

Bell Bottom EVAR Is A Good Option

- Setting The Stage: What Is It? -

The use of flared iliac limbs or distal aortic cuffs to allow endograft sealing in common iliac arteries 18 – 25mm in diameter

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- Setting The Stage: Why Do It? -

To preserve hypogastric artery flow

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- Setting The Stage: Are There Alternatives? -

- 18 BB-EVARs using 20 or 24mm aortic cuffs
- Average follow-up of 14 months (range 6-24 months)
- No BB-related endoleaks, ruptures, or migrations
- Stable or shrinking CIAs in 78%; 22% w 1mm of growth

- IIA embolization with extension into EIA
- Iliac Branch Endoprosthesis
- Parallel endografting
- Open surgical repair
Bell Bottom EVAR Is A Good Option
- The Science of Bell Bottom EVAR -

Endovascular Treatment of Common Iliac Artery Aneurysms Using the Bell-Bottom Technique: Long-term Results

Retrospective review of 89 BB-EVAR patients with a mean BB-CIA diam of 22.1 ± 3.0 mm (range 20-30)
At a mean follow-up of 56.5 mos 2.2% Type 1B ELs
Both (28 & 30mm CIAs) treated with EIA extension


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- The Science of Bell Bottom EVAR -

- 92% 5-yr freedom from secondary intervention
- Unchanged mean maximum CIA diameter
- Outcomes comparable to general reported series

J ENDOVASC THER 2010:17:504-509

Bell Bottom EVAR Is A Good Option
- Bell Bottom vs Standard EVAR -

BB-EVAR of 21 CIAs measuring 18-25mm in diameter
Compared to 136 standard EVARs over same time period
No significant difference in EL rates (36.8% vs 38.9%; P=1)
or reinterventions (15.8% vs 14.7%; P=0.707)

Annals of VS 2013:27:139-45

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- Bell Bottom EVAR vs EIA Extension -

BB-EVAR of 166 CIAs w 20-28mm endografts vs 94 CIAs treated w IIA embolization & EIA extension at median F/U of 22 mos
All reinterventions: BB-EVAR 11% vs EIA-EVAR 19% (P=0.149)
Reinterventions for 1B/3 ELs: BB-EVAR 4% vs EIA-EVAR 4% (P=1)
Combined peri-op complications and reinterventions higher in EIA extension group (49% vs 22%; P=0.002)


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- Bell Bottom vs Standard EVAR -

BB-EVAR of 61 CIAs with ≥20mm diam endograft limbs vs 178 EVARs with <20mm diameter endograft limbs at avg 53 mos

Overall 7.5% (18) Type 1b ELs at avg 38 months (4-96 mos)
1B ELs: 18% (11/61) BB-EVAR vs 4% (7/178) std EVAR (P=0.001)
HALF OF THE BB 1B ELs WERE TREATED WITH THE SIMPLE ADDITION OF A MORE DISTAL CIA BELL BOTTOM!!!

Eur J Vasc Endovasc Surg 2017:54:170-76

Bell Bottom EVAR Is A Good Option
- The Art of Bell Bottom EVAR -

Cover the entire length of the CIA to minimize area at risk for future degeneration

9% 1B Els in BB-EVAR group vs 3.9% for std EVAR (P=0.001)
Bell Bottom EVAR Is A Good Option
- When Every Minute Matters -

• preserves hypogastric artery flow
• simpler and less expensive than all alternatives
• considerably quicker EVAR for ruptured AAA
• low failure rate, easily detected, easily resolved

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INDIVIDUALIZE THE APPROACH TO THE PATIENT’S
ANATOMY and PHYSIOLOGY!!!

Bell Bottom EVAR Is A Good Option
- Good Candidates for Bell Bottom EVAR -

a long uniform CIA seal zone

a diseased contralateral IIA

Bell Bottom EVAR Is A Good Option
- The Art & Science of Bell Bottom EVAR -

• Accepting that the data are conflicting, isn’t a 90% 4 year success rate good enough???
• Especially when you consider the ease of EIA extension

Bell Bottom EVAR Is A Good Option
- The Art of Bell Bottom EVAR -

Cover the entire length of the CIA to minimize area at risk for future degeneration

Other BB EVAR T2 EL Treatments
• 2 (20%) Iliac Branch Device
• 1 (10%) refused further Rx
• 1 (10%) untreated (terminal Ca)
• 1 (10%) died before treatment

18% 1B Els in BB-EVAR group vs 3.9% for std EVAR (P=0.001)