New Medtronic Endurant Evo Endograft: Initial Clinical Experience and Advantages

Disclosure

Speaker name: Gilbert R Upchurch Jr. MD

I have the following potential conflicts of interest to report:

- I the national PI of the Medtronic Evo Trial

The Endurant Standard:
The Benchmark for Future Endografts

ENDURANT II

Endurant II is Benchmark of Future Generation AAA Technology

- 5yr US IDE
- 98% freedom from ARM
- 89% freedom from 2nd interventions
- 0% Type I, III Endoleak
- 0% migration

Evolved design for simplified procedure and increased patient customisation

Clinical study enrolling in US and Europe

Building on the Clinical Success of the Endurant Platform

ENDURANT EVO DESIGN GOALS

- Lower profile
- Eliminate tip recapture
- Contrast delivery through delivery system
- Simplify case planning and sizing
- Enhanced applicability:
  - Tighter distal aortas
  - More tortuous anatomy
ENDURANT EVO: Simplified Procedure
Increased Patient Customization

- Simplified procedure
- Increased patient customization

- 3 Fr reduction in profile
- 18 Fr OD (6 mm)
- 15 Fr OD (5 mm)

- Refined delivery system simplifies procedure
  - Eliminates tip recapture
  - Integrated flush port

- Enhanced patient applicability for:
  - Tight distal aortas via smaller proximal leg diameters
  - Tortuous iliacs via helical limb stents

Endurant Evo Delivery System

- Modifications made a 3 Fr profile reduction
- Tip recapture step is eliminated

Enhanced Patient Applicability for Tight Distal Aortas

Smaller uni-dock main body limbs allow for use in tighter distal aorta

- Limb diameter reduction from 16mm to 14mm
- Limb 1
- Limb 2

23% reduction cross-sectional area

Endurant Evo Delivery System

- Sideport extension for contrast injection

Case Review #1

- 56 year old male
- Devices used
  - Bifur: 25x13x103 mm
  - Contra: 14x12x120 mm limb
  - Ipsi: 14x12x120 mm limb

Initial Deployment

Precise Deployment

Case Review #1

- Quick cannulation contra limb
- Contrast injection to locate hypo
Case Review #1
All devices withdrawn without graft cover/tip recapture

Case Review #1
6 month f/u CTA
Decreased AAA from 5.0 to 4.2 cm

Case Review #2 – Rotten AAA Neck

Case Review #3 – AAA w/ Large Rt CIA Aneurysm

Endurant Evo Global Clinical Program

Enrollment
- 30 sites worldwide
- 140 subjects (minimum 70 US)
- First patient in: April 2015

Design
- Prospective, multi-center, pre-market, non-randomized, single-arm trial

Endpoints
- Safety: Major Adverse Events (MAEs) within 30 days post-implantation
- Effectiveness: Technical success at index procedure and treatment success at 12-months

Endurant Evo

International Clinical Trial
Gilbert R. Upchurch Jr., MD
Hence Verhagen, MD, PhD