The Role of Intravascular Robotics in Vascular Surgery

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Endovascular Procedures

- Strong Growth and Innovation, but limitations remain in terms of what can be achieved by endovascular approach
- Cases can be long, complex and unpredictable
  - Lab inefficiencies & overruns
  - Increased costs, complications
- Vascular tortuosity, lesion morphology and location, operator technique can contribute to variable outcomes (surgical conversion, no treatment)
- Occupational Hazard - Physicians are suffering radiation & orthopedic injuries
  - Shortened careers

Robotic systems offer the potential to address many of these limitations with the goal of bringing greater precision, efficiency, and predictability to endovascular procedures.

Magellan™ Robotic System

- Robotic arm at patient table
- Robotic Catheter
- Remote physician workstation

NO DISCLOSURES
Magellan™ Clinical Value

The control, stability & versatility of the Magellan Robotic System and Catheters offer the potential to:

- Enable advanced endovascular procedures and predictable procedure times
- Provide a stable platform for reliable therapy delivery
- Allows work in 3-Dimension and remain within center of vessel lumen
- Reduce use of endovascular equipment such as catheters, guide wires, expensive crossing devices
- Reduce physician and staff radiation exposure

MY ENDOVASCULAR ROBOTIC EXPERIENCE

- 1st procedure- November, 2014
- 56 Cases
  - EVAR
  - Carotid
  - Renal/Mesenteric
  - Embolization
  - Lower Extremity/ CTO
- Learning Curve
Benefits of Intravascular Robotics

- Simplifies Complex cases by allowing more precision and control
- Shortens Procedure Times \(\rightarrow\) optimizes workflow and improves efficiency of EVOR
- Decrease Radiation Exposure-Physician, staff, patient
- Better Outcomes- Improved precision, minimizes vessel trauma
- Increases Patient Volume/Flow through differentiation and efficiencies