Care of the Carotid Artery Stent Patient at BIDMC: Establishing Best Practice

The Problem

Carotid artery stent (CAS) placement for the treatment of carotid stenosis is approved for select patients experiencing symptoms, who have carotid artery blockage of 70% or greater and for whom surgery would be high risk. Beth Israel Deaconess Medical Center (BIDMC) has been offering this minimally invasive procedure since 2005 with an average of 42 patients per year undergoing carotid artery stenting. In 2009, a multidisciplinary group comprised of Vascular, Cardiology, Neurosurgery and Radiology physicians, and nursing was convened to identify best practices in the care of the CAS patient. Patient case review revealed a low incidence of post intervention complications however areas for CAS program improvement were identified.

Aim/Goal

The Carotid Artery Stent Committee identified differences in the post intervention care of the CAS patient between physician providers and nursing care areas, the need to define physician provider competency requirements and the lack of CAS patient education as key areas for program improvement. The goals of the Carotid Artery Stent Committee were expanded to address these areas for improvement and to standardize care of the Carotid Artery Stent patient between practice areas.

The Team

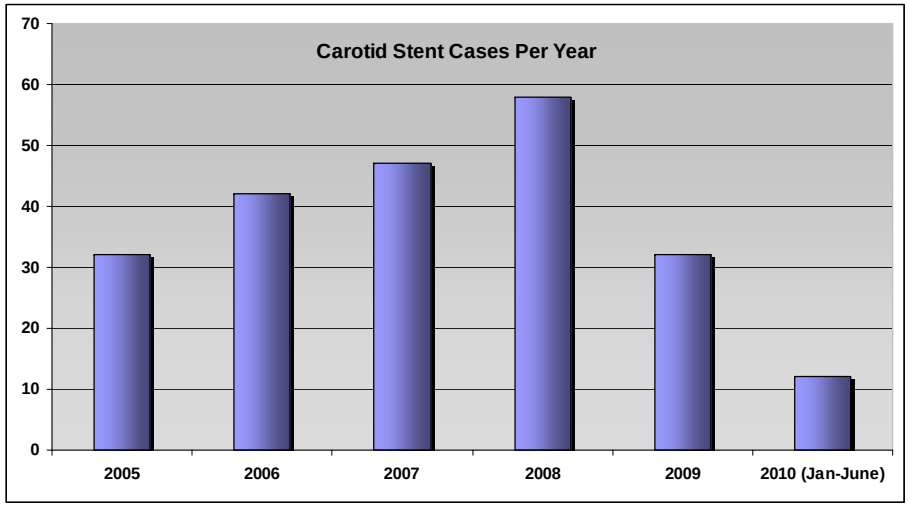
Carotid Artery Stent Committee:

Cindy Phelan RN	Duane Pinto MD
Kerry Carnevale RN	Frank Pomposelli MD
Don Cutlip MD	Marc Shermerhorn MD
Jonathan Kruskal MD	Ajith Thomas MD
Roger Laham MD	Mark Wyers MD
Mary Trovato RN	Jennifer Kaufman RN

The Interventions

- Established a forum for CAS case review and discussion
- Identified the minimum number of CAS cases per operator per year to maintain proficiency/competency in CAS
- Standardized the post intervention management of the CAS patient
- Implemented new nursing policy regarding the care of the CAS patient
- Educated Nursing staff regarding new post intervention care guidelines
- Developed CAS Patient Education Discharge Instructions

The Results/Progress to Date



Lessons Learned

- CAS case review provides forum for identifying areas for improvement
- As the number of CAS cases per year decreases, defining standardized processes for patient management becomes increasingly important
- Involving frontline staff helped identify the differences in post intervention patient management between physician groups

Next Steps/What Should Happen Next

- Continued review of patient outcomes as a means to evaluate practice and monitor for potential practice or policy changes
- Evaluate the possibility of direct admission of post-CAS patients to VICU from endovascular suite
- Based on participation in future CAS research trials, evaluate need for additional staff education
- Improve pre-procedure identification of anti-platelet medication administration

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