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PERCUTANEOUS VASCULAR INTERVENTION MARKET TRENDS: BULLISH ON LEGS, BEARISH ON RENALS- THE BLUE CROSS BLUE SHIELD OF MICHIGAN CARDIOVASCULAR CONSORTIUM EXPERIENCE

Poster Contributions

Hall C

Sunday, March 30, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Peripheral Artery Disease: Novel Imaging and Therapy

Abstract Category: 31. Vascular Medicine: Endovascular Therapy

Presentation Number: 1179-85

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Background: Peripheral arterial interventions (PVI) are expanding. However, there is little data on the vascular beds treated and devices utilized.

Methods: The study cohort was consecutive PVI from January 2006 through December 2012 in the BMC2 PVI Registry. PVI were divided by arterial segments to determine trends in longitudinal distribution. The original 6 hospitals in the Registry were evaluated from 2006 to 2012 to compare device usage and procedural indication. A simple logistic regression model was utilized to determine if there were any significant linear trends across the years.

Results: 36,741 cases were performed. From 2006 to 2012, the rates of femoro-popliteal interventions increased from 52.9% to 62.6%, below-the-knee 14.9% to 24.4% and mesenteric 1.1% to 2.6% while the rates of upper extremity interventions decreased from 4.5% to 2.8%, renal 17.1% to 5.4% and aorto-iliac 27% to 26.1%. Trend analysis was significant in each bed. There were 1,701 cases in the original 6 hospitals in 2006 and 1,420 in 2012. 71.8% presented with claudication in 2006 compared to 69.2% in 2012 (p for trend $<.001$) while rates of critical-limb ischemia increased from 22.8% in 2006 to 36.4% in 2012 (p for trend $<.0001$). Device usage in 2006 compared to 2012 is: balloon 68.6% versus 83.9%, stent 56.55% versus 52.7%, atherectomy 23.2% versus 14.7%, cryoballoon 4.8% versus 1.3%, cutting balloon 1.8% versus 8.2% and laser 5.1% versus 0.7%. Significant changes in device utilization over time were observed for each device.

Conclusion: The rates of femoro-popliteal, below-the-knee and mesenteric artery interventions are increasing while upper-extremity, renal and aorto-iliac interventions are decreasing. Use of balloon and cutting balloon angioplasty is increasing while the use of stenting, atherectomy, cryoballoon and laser are decreasing. A greater proportion of procedures are being completed for critical limb ischemia.