Abstract

Real-world Results of Atherectomy from ICD-10 Medicare Billing Data

Authors: Dipankar Mukherjee, MD, Aaron Mauck, PhD

1Inova Fairfax Hospital, Falls Church, VA, USA, 2The Advisory Board Company, Washington, DC, USA.

Objectives: Atherectomy alone or in combination with balloon and/or stent for treatment of infra-inguinal peripheral arterial disease has found a place in the armamentarium of the endovascular specialist. Registry data suggests highly effective results with low complication rates. Our objective was to evaluate real world results of atherectomy using Medicare data.

Methods: All Medicare fee-for-service claims for atherectomy from inpatient and hospital outpatient departments between 2016 Q1 and 2017 Q1 were analyzed. We analyzed Medicare ICD-10 data for the index extremity undergoing atherectomy or atherectomy with stenting. The downstream need for amputation in the same index extremity 18 months following atherectomy was determined.

Results: 13,067 patients underwent atherectomy without stenting. 1,007 of these patients (7.7%) underwent major amputation (above the ankle or hallux) of the same extremity within 18 months of the index procedure. 9,811 patients underwent atherectomy with stenting. 841 of these patients (8.6%) underwent major amputation of the same extremity within 18 months of the index procedure. Ongoing analysis includes the assessment of re-intervention rates.

Conclusions: Analysis of data specific to intervention of the index extremity made possible by ICD-10 codes suggests that real world results of atherectomy for the treatment of lower extremity occlusive disease may not be as optimistic as results reported from registry data. Practitioners are advised to be aware of these results as the cost of the intervention, particularly if repeated, far exceeds that of the balloon and stent alone.