OUTSIDE START Cilostazol Bridging Study: 8 year experience with Outpatient Cilostazol Bridging in High Stent Thrombosis Risk Paclitaxel Drug Eluting Stents in Patients having surgery during the proven at risk period

Category: Stents (including DES)

Authors: Charles Laham - Manitowoc, Wisconsin; Michael Chandra - Cedar Rapids, Iowa; Nicolas Shammas - Davenport, Iowa

1. Heart & Vascular Center - Holy Family Memorial, 2. UnityPoint Clinic Cardiology, 3. Midwest Cardiovascular Research Foundation

Background: Dual antiplatelet therapy (DAPT) = aspirin (ASA) + a P2Y12 inhibitor reduces drug eluting stent (DES) thrombosis (ST). 5%-10%/year (yr) of DES patients (pts) stop DAPT to avoid perioperative (peri-op) bleeding: DAPT stoppage has very high major adverse cardiac event (MACE) rates (=10-25% <1 yr; 7-10% 12-30 months (mths)) after paclitaxel DES (post-PES) placed. OUTSIDE START Cilostazol Bridging Pilot (OUTpatient peri-Surgical Interruption of Drug Eluting STent Antiplatelet Regimen Testing Cilostazol Bridging) tested cilostazol bridging: we report 8 yrs of peri-op Cilostazol Bridging off both DAPT in a high periop ST risk PES cohort.

Methods: From 2005-2012, we tested 2 peri-op cilostazol bridge doses in PES pts off DAPT based on surgery type. As initially DAPT advised 6 mths post DES later 1 yr, cilostazol bridging began in urgent surgeries in high ST risk 6-12 mths post PES. When DAPT advised long-term, peri-op cilostazol bridging was offered to all surgeries up to 5 yrs post DES.

Protocols: DAPT stopped after dose on 8th day pre-op; cilostazol 100mg bid begun 7th pre-op day: for low surgical bleed risk, cilostazol stopped 24-30 hours (hrs) pre-op and DAPT resumed 12-24 hrs post-op. For higher surgical bleed risk (epidurals, back, bypass, urologic) cilostazol 100mg bid stopped 54-60 hrs pre-op and DAPT resumed 24-36 hrs post-op. If cilostazol 100mg intolerant, 50mg bid used. If other bridge used pt was excluded. Pts felt fully bridged if had > 600 mg cilostazol pre-op and DAPT resumed by 48 hrs post-op.

Results: 108 PES pts had 183 cilostazol bridged surgeries off both DAPT, 1/2 to 60 mths post PES placed. 30 day MACE rates: No MACE in 171 fully bridged pts peri-op (=100%compliant
bridge therapy success). 4/12 (=33%) MACE in under-bridged pts (cilostazol non-compliant or failed to resume DAPT), (3 of 4 MACE's were in pts 1-4yrs post PES). Surprisingly no MACE seen in 48 pts adequately bridged compared to 1/7 (=14%) MACE in historically high (10-25%) risk first 12 mth period post PES with no major bleeds needing transfusion.

**Conclusions:** Outpatient cilostazol peri-op bridging of PES off DAPT appears reliable without bleeding or MACE in proven high ST risk PES cohort: similar success in current DES requires further confirmation in larger studies.

**Author Disclosures:**
1. Charles Laham: This author has nothing to disclose.
2. Michael Chandra: This author has nothing to disclose.
3. Nicolas Shammas: This author has nothing to disclose.