PCI-CURE: Effects of pre-treatment with clopidogrel \textit{PLAVIX} \& acetylsalicylic acid \textit{ASPIRIN} followed by long-term therapy in patients undergoing PCI\textsuperscript{1}

**Clinical endpoints at baseline:**

- 2,658 of 12,562 (~21% from CURE)
- Mean age 61 years, 70% \(\vec{<}75\) UA & \(\vec{<}25\) NSTEMI.
- \~30% smokers, \~27% previous MI, 13.6% previous PCI, 12.5% previous CABG
- 42.8% ST depression, 4.8% ST elevation, \~30% smokers, \~27% previous MI, 19% DM, 13.6% previous PCI, 12.5% previous CABG

**Refractory ischemia (before PCI):**

- Hospitalized within 24 hours after the onset of ACS symptoms with no ST elevation > 1mm on ECG.
- ACS symptoms lasting \~6h.

**Other endpoints:**

- All-cause mortality was not reported.
- Kaplan Meier curve for primary outcome separated on day 2 after randomization, and continued to diverge throughout the trial.
- All other safety endpoints were NS (e.g., trial defined major/life-threatening bleeding).
- Trial defined minor bleed: any other bleeding that led to interruption of study medication.
- Pre-protocol analysis excluded those who received open-label clopidogrel pre-PCI.

**Trial design:**

- Randomized, double-blind, placebo-controlled, international multicentre ITT trial with concealed allocation.

**Inclusion:**

- Hospitalized within 24 hours after the onset of ACS symptoms with no ST elevation > 1mm on ECG.

**Exclusion:**

- Anticoagulants, PCI or CABG 3 months prior.
- Received a glycoprotein IIb/IIIa inhibitor within 3 days of randomization.

**Population:**

- Mean age 61 years, 70% \(<75\) UA & \(<25\) NSTEMI.
- \~30% smokers, \~27% previous MI, 13.6% previous PCI, 12.5% previous CABG

**Results:**

- CV death, MI, urgent target vessel revascularization

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ASA DOSE

- The dose of ASA ranged from 75-325mg daily. The prescribed dose was at the discretion of the treating physician.
- In a subsequent publication, patients from PCI-CURE were stratified into three ASA dose groups: high dose (≥200mg, median dose 325mg, n=1064), moderate dose (101-199mg, median dose 150mg, n=538) and low (≤100mg, median dose 100mg, n=1056).
- The dose of ASA did not impact ischemic events (e.g. CV death, MI, stroke), but high dose ASA increased the risk of major bleed compared to low dose ASA (NNH=35/8 months) when combined with clopidogrel.

STRENGTHS, LIMITATIONS, & UNCERTAINTIES

STRENGTHS:
- Important clinical endpoints (e.g. cardiovascular death, MI, bleeding) with blinded adjudication of outcomes.
- ITT analysis for efficacy, with a per-protocol analysis which excluded those who received open-label clopidogrel pre-PCI.
- Propensity score developed to minimize potential selection bias due to non-randomized PCI; score was also validated during study.
- No patients were lost to follow up.

LIMITATIONS:
- Patients recruited later in the study may have only been followed for 3 months.
- Power calculated for CURE not PCI-CURE.
- All-cause mortality was not reported.
- Patients excluded if they received a glycoprotein IIb/IIIa inhibitor within 3 days of randomization which may be part of clinical practice.
- Did not report PPI use or stent thrombosis.

UNCERTAINTIES:
- Optimal length of DAPT post-PCI.
- If the benefit pertains to patients who received PCI on initial hospitalization or in subsequent hospitalizations equally.
- Use of clopidogrel at presentation may delay CABG (clinical implications unclear).
- Guidelines recommend DAPT x 12 months based on this study, mean duration only 8 months (% patients who got 12 months therapy unknwn).

Note: there was a statically significant difference in major bleeding in the CURE study, with a NNH=100. Gastrointestinal bleed was the most common type of major bleed.

RxFiles RELATED LINKS

- Duration of DAPT & Triple Therapy RxFiles Chart
- DAPT RxFiles Trial Summary: http://www.rxfiles.ca/rxfiles/uploads/documents/DAPT-Trial-12vs30months.pdf

References