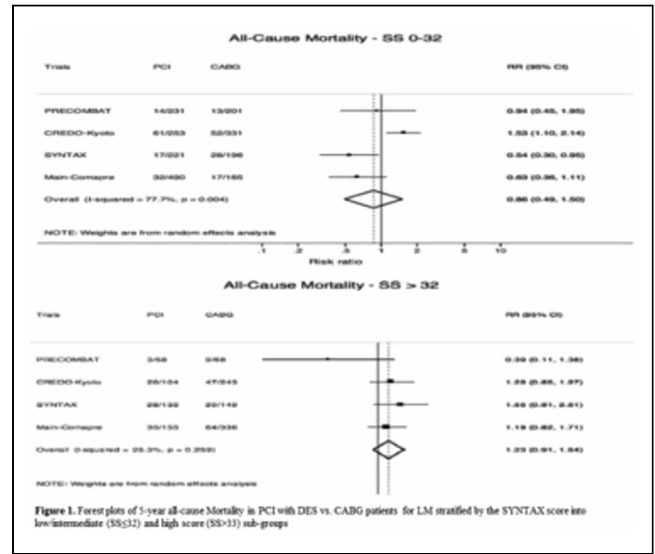
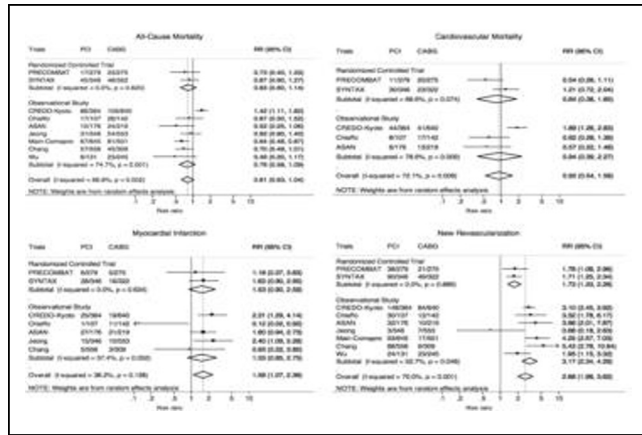


CONCLUSIONS The findings of this meta-analysis suggest that for the treatment of LM disease, PCI with DES and CABG have comparable mortality (all cause and cardiovascular) during long-term follow-up. PCI with DES appears to be associated with increased risks of MI and repeat revascularization.



CATEGORIES CORONARY: PCI Outcomes

KEYWORDS PCI outcomes

TCT-464

Long-Term Mortality Of Percutaneous Coronary Intervention With Drug-Eluting Stents Compared To Bypass Surgery In Patients With Left Main Disease Stratified By The SYNTAX Score: Comprehensive Systematic Review And Meta-Analysis Of 3372 Patients

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BACKGROUND According to the most recent guidelines, percutaneous coronary intervention (PCI) with drug eluting stents (DES) should be considered safe and effective alternative to coronary artery bypass grafting (CABG) for the treatment of left main (LM) disease in patients with favorable anatomy (SYNTAX score ≤32). Conversely in those with more complex coronary disease (SYNTAX>33) CABG is favored mainly due to lower rates of revascularization and myocardial infarction. However, whether the latter it is translated into long-term mortality benefit it is not clear and merits further investigation.

METHODS A systematic review of the MEDLINE, EMBASE, EBSCO, CINAHL, Web of Science and COCHRANE databases was conducted in May 2015. Studies reporting long-term outcomes (at least 4 years mean follow up) of PCI with DES to CABG for LM disease stratified by SS were identified. Patients were categorized to low/intermediate (SS≤32) and high score (SS>33) groups. Random-effects meta-analyses were performed using risk ratios as the metric of choice.

RESULTS Four studies comprising two randomized control trials (SYNTAX and PRECOMBAT) and two observational studies (Main-compare and CREDO-Kyoto), with a total of 3372 patients were included. 1248 patients (37%) had complex coronary artery disease (SS>33). Over a mean follow up of 4.9 years, no significant difference in all-cause mortality was observed between PCI and CABG irrespective of SYNTAX score strata (Figure 1). Similar findings were observed for cardiovascular mortality (SS ≤ 32 RR 0.85; 95% 0.41-1.77; I2 66% for PCI vs. CABG; SS >33 RR 1.25; 95% CI 0.92-1.69; I2 29% for PCI vs. CABG).

CONCLUSIONS Patients with LM disease appear to have similar risks of mortality after PCI with DES or CABG regardless of coronary artery disease burden or complexity during long term follow up.

CATEGORIES CORONARY: PCI Outcomes

KEYWORDS Left main coronary artery disease, Meta-analysis, Syntax score

TCT-465

In-hospital death causes of acute myocardial infarction, retrospective analysis from Beijing Percutaneous Coronary Intervention Registry 2010-2013

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BACKGROUND Intense investigation continued on the quality control of primary percutaneous coronary intervention (PPCI) because of its high morbidity and mortality. However, little study focused on the death cause analysis in a large sample. This study is to describe the current status of acute myocardial infarction treatment in the real world, facilitate individualized preventive approach for in-hospital death, and develop a successful quality control/improvement solution for primary percutaneous coronary intervention in China.

METHODS Data of patients were obtained from Beijing Percutaneous Coronary Intervention Registry study (BJPCI Registry, NCT01417325). Each in-hospital dead case was reviewed and analyzed in the Beijing Cardiovascular Intervention Quality Control and Improvement Center quarterly.

RESULTS The study included 19905 acute myocardial infarction patients (attack to visiting time < 72h) of 52 centers in Beijing area from Jan.1, 2010 to Dec 31, 2013. Total in-hospital mortality was 2.30% (total 458 dead cases, 56 cases excluded). Of the included 402 cases, average age was 70.4±11.2, 91.8% were ST elevated myocardial infarction and 55.7% were male. 81.3% of death occurred during the first week after the emergency procedure. 58.5% had anterior wall involved, and 41.5% located in inferior, posterior wall or right ventricle. Average attack to visiting time was 7 hour 52 minutes. Of all causes of death, the disease severity itself (178, 69.2%) were the primary factors, including cardiogenic shock (146, 36.3%), mechanical complications (113, 28.1%), and others (19, 4.7%); Followed by the procedure factors (81, 20.1%), including early stent thrombosis (36, 9.0%), no reflow (30, 7.5%), acute thrombosis or embolism (6, 1.5%), perforation or dissection (4, 1.0%), retroperitoneal hematoma (3, 0.7%) and acute side branch closure (2, 0.5%); The third was the comorbidity factors (29, 7.2%), including septic shock (11, 2.7%), cerebral infarction (10, 2.5%), pulmonary embolism (5, 1.2%) and multiple organ failure (3, 0.7%); The last was medicine factors (14, 3.5%), including intracranial hemorrhage (8, 2.0%), massive gastrointestinal hemorrhage (5, 1.2%) and anaphylactic shock (1, 0.2%). 47.3% (190) of the dead cases had some sort of medical defects, including indication (4, 1.0%), rescue measures (60, 14.9%), strategy selection (107, 26.6%) or procedure issue (19, 4.7%). There is no significant difference of the mortality from 2010 to 2013 (2.23%, 2.55%, 1.94% and 2.48% respectively).

CONCLUSIONS Mortality of acute myocardial infarction remains high, which have a variety of causes, by order of disease itself, procedure, comorbidity and medicine factors. The three leading causes of death were cardiogenic shock, mechanical complications and early stent thrombosis. Analysis of death causes may contribute to facilitate