

## Impact of intraprocedural stent thrombosis on outcomes of percutaneous coronary intervention: a meta-analysis

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**Background:** Intraprocedural stent thrombosis (IPST), defined as the development of occlusive or nonocclusive new thrombus in or adjacent to a recently implanted stent before completion of PCI. IPST even though a rare entity, yet is associated with worse prognosis amongst all intraprocedural thrombotic events.

**Purpose:** Data regarding the impact of IPST is scarce and needs further investigation.

**Methods:** We performed literature search of all published full-length articles that studied and compared data on patients with IPST and with no IPST during PCI. We calculated odds ratios via the random effects model for 30 day and 1 year outcomes.

**Results:** Our literature search yielded 3 studies (1 retrospective, 2 observational post-hoc analysis) relevant to the meta-analysis. Total 19272 patients were included. IPST occurred in 159 patients (0.8%). At 30 days,

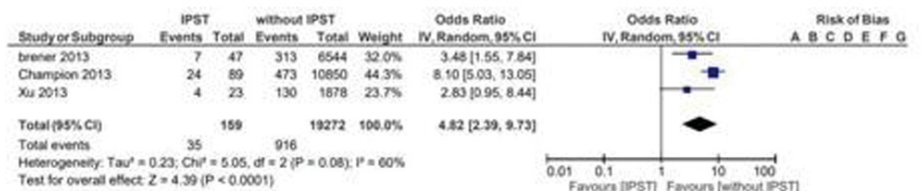
IPST was associated with statistically significant higher all-cause mortality (OR 10.79, 95% CI [6.31, 18.45]  $p < 0.00001$ ), MI (OR 4.82, 95% CI [2.39, 9.73]  $p < 0.00001$ ), target vessel revascularization (TVR) (OR 6.70, 95% CI [3.38, 13.29]  $p < 0.00001$ ), definite stent thrombosis (OR 10.44, 95% CI [5.87, 18.58]  $p < 0.00001$ ), definite or probable stent thrombosis (OR 9.28, 95% CI [5.54, 15.56]  $p < 0.00001$ ) and death or MI or TVR (OR 7.20, 95% CI [4.10, 12.64]  $p < 0.00001$ ), than those without IPST. At one year, results remained statistically significant for higher mortality (OR 4.27, 95% CI [1.92, 9.49]  $p = 0.0004$ ) and death or MI or TVR (OR 2.91, 95% CI [1.58, 5.36]  $p = 0.0006$ ) in patients with IPST.

**Conclusions:** IPST even though is a rare occurrence, is associated with more adverse ischemic events, including higher mortality at 30 days and 1 year.

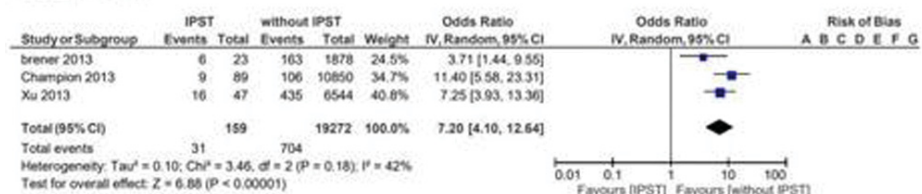
### 1.1 Mortality



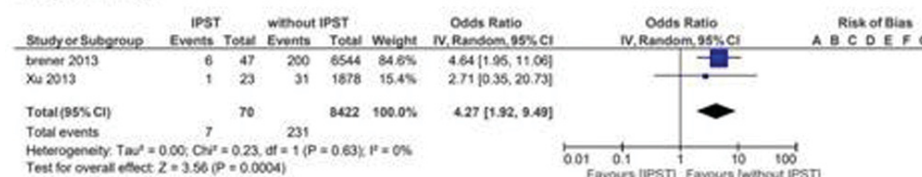
### 1.2 Acute MI



### 1.3 Death or MI or TVR



### 1.7 One year mortality



### 1.8 One year Mortality or MI or TVR

