

## O2-1

### **Covered versus base stent for the treatment of aortic coarctation: systematic review of currently available clinical evidence.**

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#### AIMS

To summarise data from studies where covered (CS) or bare (BS) stents were used to treat aortic coarctation.

#### METHODS AND RESULTS

Electronic databases, journals and major international conference proceedings were systematically searched for pertinent clinical studies comparing the two methods of closure (percutaneous and surgical) published up to December 2015. Primary endpoints: occurrence of death and of major early complications. Major complications were defined as life-threatening events requiring immediate therapy; permanent functional or anatomic lesion; any aortic wall injury (dissection/ acute aneurysm); complication needing surgery.

Fifty-five original studies (total of 2046 patients: 434 CS, 1612 BS) were included. All studies were non-randomized. No death was encountered in CS subjects while it occurred in 4 subjects in the BS group (0,4%; 95% CI 0,22-0,58 %). Quantitative synthesis of major complications after procedure showed a 3% (95% CI 2,2-3,8%) rate in CS subjects while a 6.3 % (95% CI 5,2-7,4%) rate in BS subjects.

#### CONCLUSIONS

The largest cohort to date of patients treated by using covered or bare stent shows that covered stent has a significantly lower rate of total early post-procedural complications.