

P2729 Post-sternotomy mediastinitis after CABG surgery: clinical aspects, microbiology and surgical management with initial debridement and primary wound closure (1998-2016).

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Background: Post sternotomy mediastinitis (PSM) is a devastating and challenging disease that requires interdisciplinary team-based approach. There is little consensus regarding optimal surgical management.

Our objective is to describe clinical aspects, microbiology and outcomes of a case series of one-step surgical management of PSM following CABG surgery in a cardiovascular center.

Materials/methods: Retrospective analysis of 102 consecutive PSM episodes registered in the institutional database. Statistical analysis was performed using χ^2 or Fischer's exact test on categorical variables. For continuous variables Student's t-test was used. Multivariable analysis was performed with binomial regression. Software used was IBM® SPSS Statistics v.16.

Results: There were 10.233 cardiothoracic surgeries from November 1998 to December 2016; 182 (1.78%) developed PSM; 102 were after CABG surgery (0,99%). Mean age: 65 yo (SD±10), female 22.5%, BMI 28.78 (mean; SD±4.49). All patients had at least one comorbidity (hypertension 75.5%, dyslipidemia 72.5%, diabetes 55.9%, current/former smoker 50%). Urgency surgery was performed in 36.3%. Bilateral internal mammary bypass was performed in 45 (44.1%) patients (from 2003) and 38 (37.3%) were on mechanical ventilation. Off-pump CABG surgery started from 2002, carried out in 66.7%.

Days to PSM symptoms or signs were 13 (median; SD±7.1): 50% within the 2nd week, 21.6% on the 3rd and 18.6% cases on the 1st week after surgery; Clinical findings: wound discharge (76.5%), fever (65,7%), sternal pain (53.9%) and erythema (41,2%). Microbiology: GPC 50% (*S. aureus* 36.4%, CNS 17.6%), GNB 49%, polymicrobial 18.6%, *Candida* spp 3,9%. Blood cultures were positive in 54% of patients and subxyphoid tissue samples in 85.7%. Surgical treatment: all patients underwent open debridement and primary closure in the early 72 hours from clinical diagnosis of PSM. Hospital stay: 16 days (r= 4-150). In 55.9% of patient's antimicrobial therapy was in a home care modality (median= 7 days; r= 1-65). Outcome: cure/improvement: 88 patients (86,3%). In-hospital mortality: 12 (11,8%); Overall mortality was 14 (13,7%) in the follow up of 4 years (r: 0-15 y).

Conclusions: Immediate debridement, drainage and primary closure could be an interesting approach associated with less hospitalization, morbidity and diminished short-term mortality. Home care is an effective tool to complete the treatment.

