

# European Respiratory Society Annual Congress 2012

**Abstract Number:** 4393

**Publication Number:** 180

**Abstract Group:** 8.1. Thoracic Surgery

**Keyword 1:** Surgery **Keyword 2:** Thoracic oncology **Keyword 3:** No keyword

**Title:** Surgery for sternal tumors: Extent of resection, reconstruction and survival

Prof. Dr Danail 26560 Petrov danail\_petrov@hotmail.com MD <sup>1</sup>, Dr. Georgi 26561 Yankov georgiyankov@abv.bg MD <sup>1</sup>, Dr. Elyuar 26562 Goranov goranove@hotmail.com MD <sup>1</sup>, Dr. Michhail 26563 Plochev michailplochev@abv.bg MD <sup>1</sup> and Dr. Svilen 26564 Alexov alexovsv@hotmail.com MD <sup>2</sup>. <sup>1</sup> Thoracic Surgery Department, Saint Sophia University Hospital of Pulmonary Diseases, Medical University-Sofia, Bulgaria and <sup>2</sup> Anesthesia and Intensive Care Clinic, Saint Sophia University Hospital of Pulmonary Diseases, Medical University-Sofia, Bulgaria .

**Body:** Objective. To evaluate the postoperative results after different sternal resections for malignances. Methods. A total of 15 patients (mean age 48.9 years) were operated on during a 7 years period. There were 8 sarcomas (4 chondrosarcomas, 3 radiation-induced sarcomas, 1 osteosarcoma), 1 recurrent desmoid tumor, 3 local breast tumor recurrences, 1 plasmocytoma, and 2 metastases of other tumors. Four cm free margins on each side were achieved in all patients with total sternectomy (4), subtotal sternal resection (9), and partial resection (2). Concurrent en bloc resection included anterior ribs (4), clavicle (3), pericardium (2), brachiocephalic vein (2), and diaphragm (1). The chest was reconstructed with Marlex mesh and myocutaneous flap in 8 (53.3%) patients or omentum in 1 (6.7%) patient, only double layer Marlex mesh with breast mobilization in 4 women (26.7%), and a combination of Marlex mesh and a metal bar in 2 patients (13.3%). Results. There was no 30-day operative mortality. Mechanical ventilation for 5 days was needed in a 78 years old female after total sternectomy. Local suppuration was found in 1 patient. The mean in-hospital stay was 11.4 days. After a median follow-up of 51 months the overall 5-year survival was 48%, with a median survival of 57 months. Local recurrence occurred in 1 patients, who underwent a repeat resection. Metastases developed in 2 patients. Conclusion. Wide sternal resection is a safe and effective treatment of sternal malignances. The chest wall reconstruction depends on the size and site of the resection, and should be planed with plastic surgeons.