

Case Report and Review of the Literature

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The Influence of Perioperative Factors on Postoperative Pulmonary Effusion After Resection of Giant Mediastinal Mass

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Abstract

Objectives: The aim of this retrospective study was to investigate the influence of perioperative factors on postoperative pulmonary effusion after resection of giant mediastinal mass.

Patients and Measurements: The study comprised 377 patients who underwent resection of mediastinal tumor from January 2008 to December 2023 in Sun Yat-sen Memorial Hospital. Clinical manifestations, imaging results, intraoperative blood loss, fluid volume, postoperative respiratory and cardiovascular complications, and postoperative hospital stay were collected and compared in groups.

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Main Results: Clinical manifestations, imaging results, intraoperative blood loss, fluid volume, postoperative respiratory and cardiovascular complications, and postoperative hospital stay were collected and compared in groups. We found that patients with postoperative pulmonary effusion had a high incidence of preoperative superior vena cava compression ($P = 0.033$). The comparison between patients with the superior vena cava compression and those without no superior vena cava compression patients indicated that the former had a higher percentage of postoperative pulmonary effusion ($P = 0.033$) and postoperative ICU transfer ($P = 0.033$), a higher average intraoperative blood loss ($P = 0.001$), and a longer postoperative length of hospital stay ($P = 0.006$).

Conclusion: Patients with preoperative superior vena cava compression had a higher incidence of postoperative pulmonary effusion following resection of giant mediastinal mass.

Keywords: *Giant mediastinal mass, superior vena cava compression, general anesthesia, pulmonary effusion, perioperative factors*