

MANAGEMENT OF POSTOPERATIVE BLEEDING

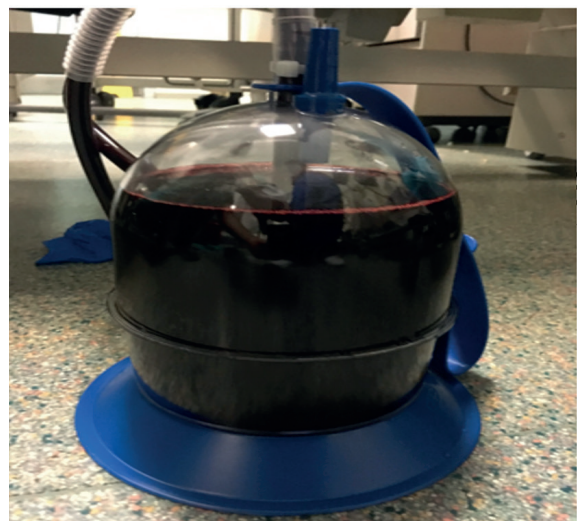
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The term ‘complication’ describes an unwanted clinical situation that occurs during or after an operation and has the potential to threaten the patient’s life. The thoracic cavity involves various vital organs that may cause life threatening complications. Two types of postoperative complications should be distinguished: Early complications occurring within 30 days and late complications occurring after 30 days postoperatively [1] (Table 1).

Postoperative bleeding is rare in thoracic surgery practice. It occurs in less than 2% of video-assisted Thoracoscopic procedures (VATS) and around 1% to 3% of open procedures. Risk is higher (6% to 13.5%) following completion pneumonectomies [3,4].

Postoperative bleeding can be due to surgical bleeding or coagulopathy, surgical bleeding being more common. If there is a suspicion for coagulopathy, a set of coagulation tests are performed and coagulopathy is corrected with products such as fresh frozen plasma (FFP), platelets, cryoprecipitate, or factor 7 according to the underlying deficiency. It should be kept in mind that the threshold for taking back a patient for re-exploration should be low, as a surgical cause of bleeding should be ruled out as early diagnosis and intervention has a great impact on morbidity and mortality [5].

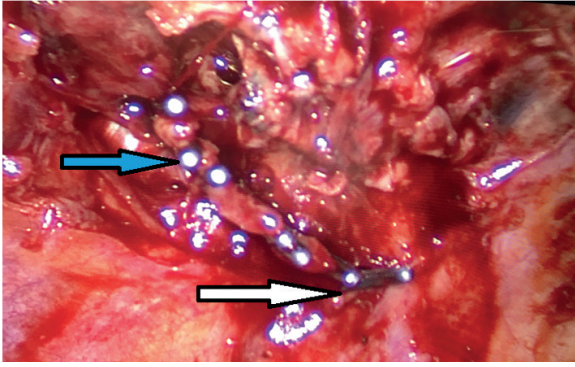
Typical clinical signs associated with postoperative bleeding include hypotension, tachycardia, sweating, and cool peripheries, tachypnea, confusion, and agitation. The urinary output starts to decline accordingly. The amount and characteristic of the chest tube output should be followed closely during the postoperative period. A chest tube output of 1000 ml in 1 hour necessitates an immediate return to the operating room. Likewise, serial drainage exceeding 200 ml/h for 2 to 4 hours or abrupt drainage of 300-400 ml after correction of coagulopathy also indicates surgical bleeding and dictates re-exploration (Picture1) [5,6,7].



Picture 1: Bleeding after lung resection

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Picture 3: Control of the bleeding with using endoclips (arrows)

To sum up, the occurrence of postoperative bleeding following thoracic surgical procedures can be reduced with meticulous surgical technique and intraoperative precise bleeding control. However, it may occur despite all precautions. Prompt evaluation and decision with a low threshold to re-exploration is the key step that can reduce morbidity and mortality.

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