



The importance of clinical assessment and radiology findings in postoperative follow-up in a patient with descending necrotizing mediastinitis: a case report

Zoran Dakic¹, Ljiljana Krupljanin¹, Bojan Bjelosevic¹

1. University Clinical Centre of the Republic of Srpska; Banja Luka; Bosnia and Herzegovina

INTRODUCTION:

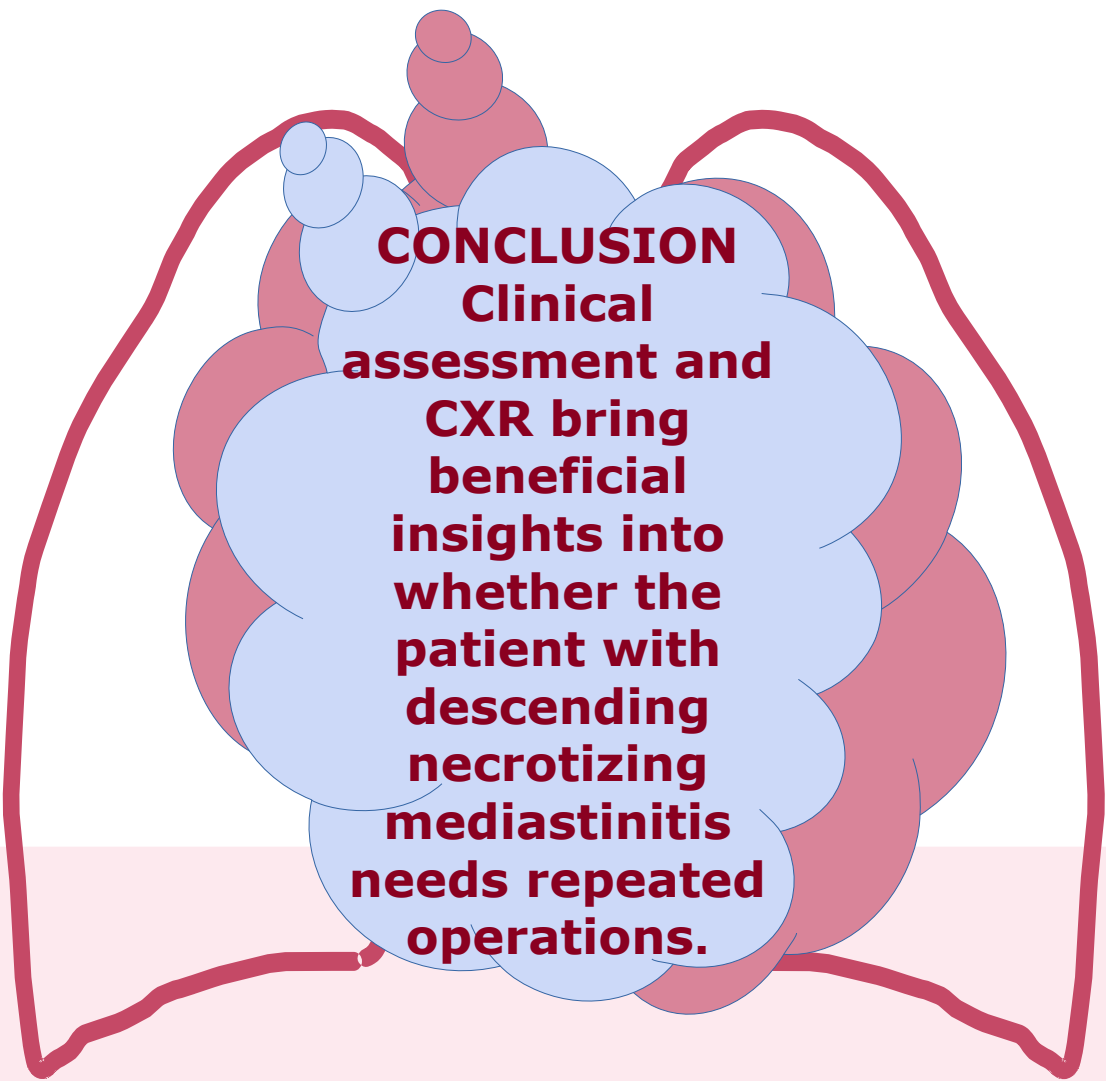
Descending necrotizing mediastinitis (DNM) is a rare life-threatening progressive infection usually caused by spreading odontogenic, pharyngeal, or deep neck infections to the mediastinum. Early diagnosis and aggressive surgical treatment, alongside antibiotics and supportive therapy, is vitally important in treating the DNM, especially in cases with anterior and posterior mediastinum involved. Understanding which signs are important in follow-up after initial surgeries could improve outcomes in treatment.

CASE REPORT:

A man in his 40s, without co-morbidities, was admitted to our hospital with clinical and CT signs of deep neck and mediastinal infection seven days after pharyngeal infection treated with oral antibiotics.

We performed neck incision, bilateral thoracotomy with mediastinal pleural incisions, and drainage of abscesses in the neck, pleura and mediastinum.

Clinical improvement and disappearing wide mediastinum signs on chest radiography (CXR). Pleural fluid collections resolved spontaneously after drainage removal.



CONCLUSION
Clinical assessment and CXR bring beneficial insights into whether the patient with descending necrotizing mediastinitis needs repeated operations.

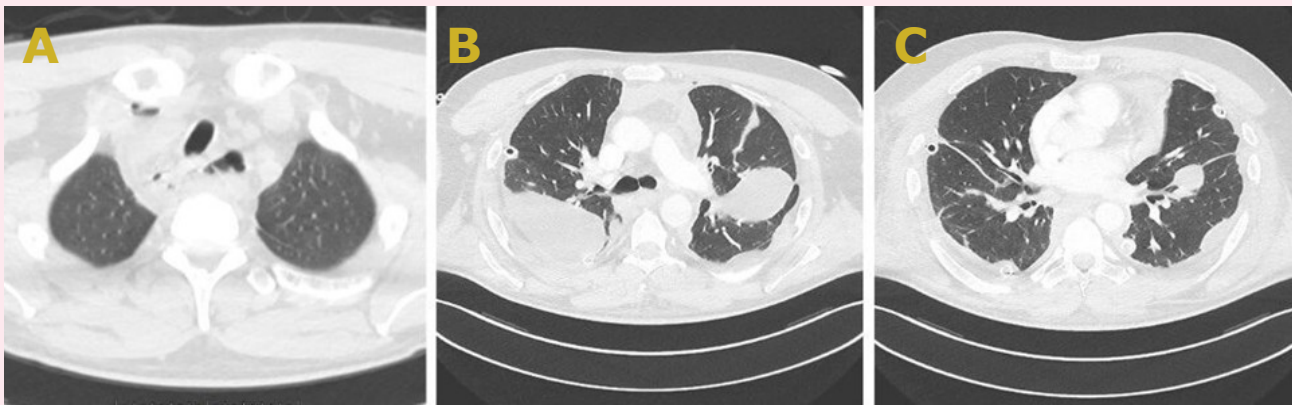


Figure 1: Gas and liquid collections in the neck (A), anterior and posterior mediastinum, below the tracheal carina (B, C)

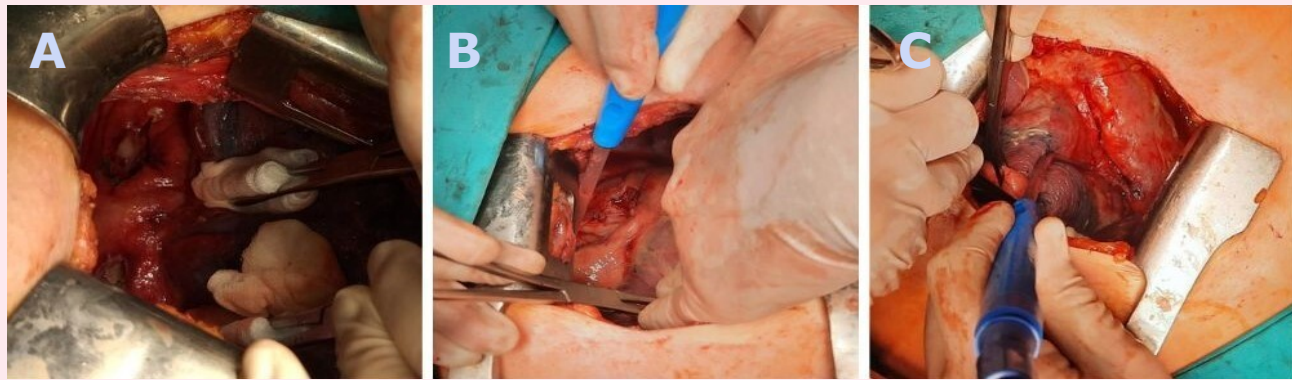


Figure 2: Collections behind azygos vein (A), paraaortic collections (B, C).

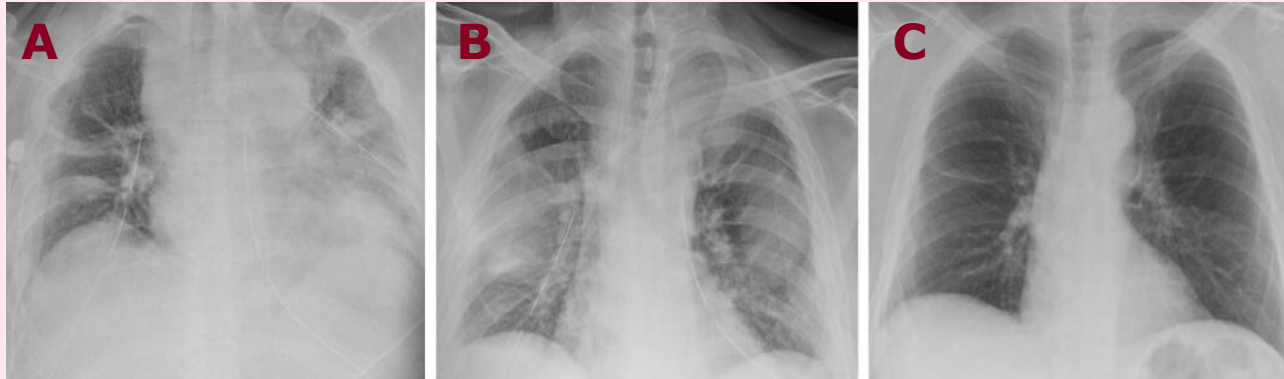


Figure 3: Chest radiography - first postoperative day (A); tenth postoperative day(B); three weeks after operation(C)

DISCUSSION: Descending necrotizing mediastinitis is a rare, very severe, and progressive infection. Delayed treatment or incomplete mediastinal drainage could lead to further complications and higher mortality. Our patient’s general condition improved significantly after the aggressive neck and mediastinal surgical drainage and broad-spectrum antibiotics. He was mobilized early after interventions. We closely monitored wide mediastinal shape disappearing and pleural collections spontaneously resolving after drainage on repeated chest radiography (CXR). The significance of the CXR after initial mediastinal drainage may be important to establish a strategy for further interventions in patients suffering from descending necrotizing mediastinitis.

