

## Malignant superior vena cava syndrome: Is this a medical emergency?

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### Abstract

**Background:** Superior vena cava syndrome (SVCS) is an association with a variety of benign and malignant etiologies. The aim of this study was to evaluate if malignant SVCS is a real medical emergency or if we are able to obtain a definite histological diagnosis before chemoradiotherapy. **Materials and Methods:** In this prospective case series study, we have evaluated epidemiological characteristics and the ability to obtain a definitive histological diagnosis before chemoradiotherapy and the role of chemoradiotherapy prior to obtaining tissue specimens on the results of diagnostic interventions in patients with malignant SVCS who came to thoracic surgery wards of Imam Khomeini (Tehran) and Ghaem and Imam Reza (Mashhad) hospitals in Iran from 2001 to 2006. **Results:** Among 90 patients with SVCS, the M/F ratio was 32/18. Mean age was 61.7 years, and the most common symptom was dyspnea (86%). We performed successful tissue sampling before chemoradiotherapy in 44 cases (49%), and histological diagnoses in 100% of these cases were established, but among the other 46 patients (51%) who received chemoradiotherapy first because of unstable general conditions, histological diagnoses were obtained in only one patient (2.2%) after chemoradiotherapy ( $P < 0.01$ ). No in-hospital deaths were reported among our cases. **Conclusion:** Because we are able to establish tissue specimens by minimally invasive methods in most SVCS cases and because chemoradiation may preclude obtaining an exact pathological diagnosis, we suggest performing diagnostic interventions prior to chemoradiation in patients with SVC syndrome and without emergent clinical conditions. (Ann Thorac Cardiovasc Surg 2009; 10: 89-92). © 2009 The Editorial Committee of Annals of Thoracic and Cardiovascular Surgery.

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