

sympathicotomy outside the web margin, which led to curative results for the patient's palmar sweating.

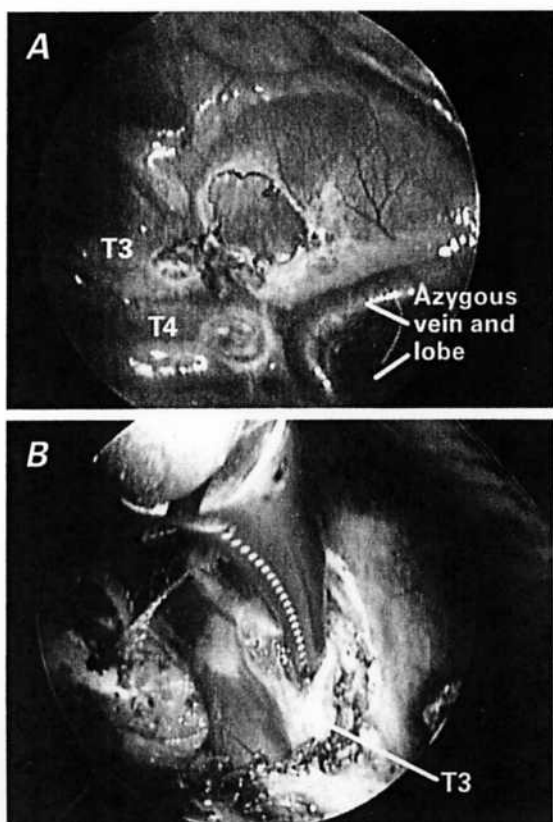


Fig. 3 Patient 2. **A)** Azygous web obscures the costal heads above the level of T4. The web has been penetrated to approach the T3 sympathetic level, and a T4 sympathectomy has been performed outside the web. **B)** The T3 sympathetic chain over the 3rd costal head is teased away from an adjacent vein in preparation for sympathectomy.



Fig. 4 Patient 3. Azygous web obscures the sympathetic chain above the level of T4.

Patient 4

A 30-year-old white man had developed massive palmo-plantar and axillary hyperhidrosis to the dripping stage; it had begun in early childhood. The condition interfered with his career as a computer programmer. Topical aluminum chloride was completely ineffective, as were palmar subdermal injections of botulinum type A-toxin. At thoracoscopic sympathectomy, we found that a prominent azygous vein dangled from a suspensory web and that the lateral edge of the web obscured the sympathetic chain above the level of the 2nd costal head (Fig. 5). Lower sympathetic levels, including T2, were readily visible lateral to the web. We dissected the edge of the web from the costal head without actually perforating the web and performed a T2 and T3 sympathectomy, with curative results for the palmar hyperhidrosis.

Discussion

The azygous lobe membrane, which obscures the right superior sulcus, has been reported as an anomalous finding in several clinical situations. These have included thoracoscopic and open surgery for osteosarcoma⁵ and malignant fibrous histiocytoma⁶ metastatic to the azygous lobe, thoracoscopic resection of apical bullae of the azygous lobe,⁷ and thoracoscopic upper sympathectomy⁸⁻¹⁰ for hyperhidrosis.

Primary hyperhidrosis, particularly instances involving the hands, can be debilitating for patients professionally and socially. For typical, severe palmo-plantar hyperhidrosis, conservative medical treatments including topical aluminum chloride, iontophoresis, oral anticholinergics, and subdermal injections of botulinum

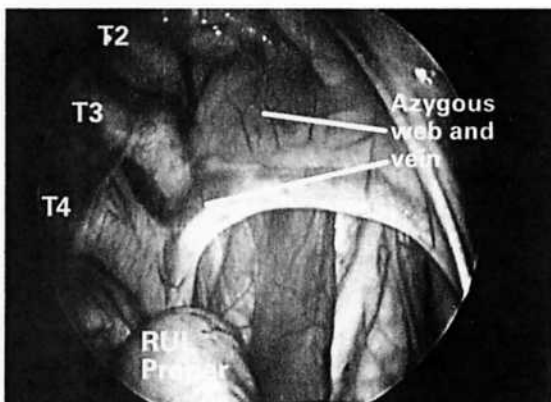


Fig. 5 Patient 4. The lateral edge of an azygous web obscures the sympathetic chain above the 2nd costal head. The sympathetic chain overlying the 2nd and 3rd costal heads is easily visualized for T2 and T3 sympathectomies outside the borders of the web. Inferiorly, the azygous lobe of the lung has fallen out of view.

RUL = right upper lobe