

Clinical Image

Facial Blushing Treated by Thoracic Sympathectomy: Visual Evidence

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Fig. 1.

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6 An 18-year-old male patient diagnosed with severe facial blushing, refractory to conservative treatment, was selected for bilateral  
7 sequential thoracic sympathectomy following a multidisciplinary discussion. The patient's preference to undergo the procedures separately,  
8 to minimize risks and facilitate recovery, was respected. The video highlights the striking postoperative outcome following the left-  
9 Q2 sided sympathectomy performed via uniportal video-assisted thoracoscopic surgery (uVATS) (Fig. 1). The selective interruption of the  
10 sympathetic nerve at the T2 level is demonstrated in the postoperative images provided by the patient, showing a clear contrast between  
11 the untreated side of the face, which remains visibly red, and the treated left side, which exhibits complete resolution of the facial blushing.  
12 This case, supported by visual evidence of the clinical outcome, underscores the effectiveness of thoracic sympathectomy in the treatment  
13 of facial blushing, aligning with findings reported in previous studies on the use of this technique.<sup>1,2</sup>

#### 14 **Informed consent**

15 Q3 We confirm that we have obtained all consents required by applicable law for the publication of any personal details or images of  
16 patients, research subjects or other individuals that are used in the materials submitted to Elsevier. We have retained a written copy of all  
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19 The authors published that the article is original and has not been sent to another journal for publication.

#### 20 **AI Declaration**

21 During the preparation of this work, the authors used generative pre- trained transformer 4 (GPT-4) in order to check grammar,  
22 translation and spelling. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the  
23 content of the publication.

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#### 26 **Conflicts of Interest**

27 The authors state that they have no conflict of interests.

#### 28 **Appendix A. Supplementary Data**

29 Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.arbres.2025.02.003](https://doi.org/10.1016/j.arbres.2025.02.003).

#### 30 **References**

- 31 1. Licht PB, Pilegaard HK, Ladegaard L. Sympathicotomy for isolated facial blushing: a randomized clinical trial. *Ann Thorac Surg.* 2012;94(2):401–5,  
32 <http://dx.doi.org/10.1016/j.athoracsur.2012.03.076>. Epub 2012 May 24. PMID: 22633477.
- 33 2. Kuijpers M, van Zanden JE, Harms PW, Mungroop HE, Mariani MA, Klinkenberg TJ, et al. Minimally invasive sympathectomy for palmar hyperhidrosis and facial blushing:  
34 current status and the hyperhidrosis expert center approach. *J Clin Med.* 2022;11(3):786, <http://dx.doi.org/10.3390/jcm11030786>. PMID: 35160238; PMCID: PMC8836383.