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# Onyx Injection by Direct Puncture for Presurgical Embolization of a C2 Hypervascular Metastasis from a Thyroid Cancer

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## Abstract

Surgery of spine hypervascular lesions, like hemangioma or metastases from thyroid or renal cancer may be very challenging due to the risk of massive blood loss. <sup>1</sup> To overcome this limitation, presurgical embolization has gained acceptance to reduce this risk. <sup>2</sup> However, some configurations, like the origin of a radiculomedullary artery close to the vessels feeding the lesion, or when the lesion is supplied by vessels feeding an eloquent territory, may limit the possibilities of presurgical embolization, especially with microparticles. <sup>3</sup> Direct percutaneous puncture of the spine lesion and subsequent embolization with liquid agent may be a valuable option in such challenging cases. <sup>4</sup>

We present herein a case of presurgical embolization of a C2 metastasis from a thyroid cancer using Onyx-18 injected by direct puncture ([Video 1](#)). We stress in this Technical Video the technical aspects of the direct puncture technique and the safety rules to avoid neurological complications.

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