

any size).<sup>5,8</sup> In these cases, elective treatment can include endovascular techniques (stents or selective embolization) or surgery (either open or laparoscopic in selected cases)<sup>5,8,10</sup> in order to resect the aneurysm or ligate the splenic artery, while attempting to preserve the spleen.

For the diagnosis of ruptured splenic aneurysms, computed tomography with intravenous contrast is the best option in the emergency setting in hemodynamically stable patients. Hemorrhage in the omental bursa, retrogastric hematoma or contrast medium leak at the splenic artery should raise suspicions for the diagnosis and indicate therapeutic angiography with selective embolization.<sup>5,8</sup>

In emergency surgery due to SAA rupture, early aortic clamping (supra-ceeliac or thoracic) is a very useful maneuver for the initial control of exsanguinating hemorrhage. Afterwards, ligation of the splenic artery is carried out, generally with distal splenopancreatectomy.<sup>5,8–10</sup> In our case, vascular control of the thoracic artery was necessary as it was impossible to safely access the abdominal aorta due to the large hematoma; the abdominal approach was used with a midline laparotomy, and ligation of the splenic artery was done with distal splenopancreatectomy.

SAA rupture is a rare but potentially fatal complication in pregnancy. It should be suspected in pregnant women with pain in the left hypochondrium and epigastrium and associated hemodynamic instability, especially since early diagnosis and treatment are key for the survival of both the fetus and mother.

#### REF E R E N C E S

1. Hillemanns P, Knitza R, Muller-Hocker J. Rupture of splenic artery aneurysm in a pregnant patient with portal hypertension. *Am J Obstet Gynecol.* 1996;4:1665–6.
  2. Beaussier M. Sur un anévrisme de l'artère splénique dont les parois se sont ossifiées. *J Med Clin Pharmacol.* 1770;32:157.
  3. Corson EM. Aneurysm of the splenic artery: rupture and death. *Med Surg Rep.* 1869;20:351.
  4. Parangi S, Levine D, Henry A, Isakovich N, Pories S. Surgical gastrointestinal disorders during pregnancy. *Am J Surg.* 2007;193:223–32.
  5. Escudero de Fez MD, Sabater Ortí L, Calvete Chornet J, Camps Vilata B, Gómez Portilla A, Martínez León J, et al. Hemoperitoneo por rotura de aneurisma de la arteria esplénica. *Cir Esp.* 2001;3:160–3.
  6. Ho WC. Rupture of splenic artery aneurysm in pregnancy. *CMAJ.* 1977;117:123–4.
  7. Abbas MA, Stone WM, Fowl RJ, Gloviczki P, Oldenburg WA, Pairolero PC, et al. Splenic artery aneurysms: two decades experience at Mayo Clinic. *Ann Vasc Surg.* 2002;4:425–42.
  8. Girones Vila J, Roig García J, Rodríguez Hermosa JI, Garsot Savall E, Codina Cazador A. Preservación esplénica tras resección de aneurisma esplénica por rotura. *Cir Esp.* 2008;84:227–36.
  9. Pavlis T, Seretis C, Gourgiotis S, Aravosita P, Mystakelli C, Aloizos S. Spontaneous rupture of splenic artery aneurysm during the first trimester of pregnancy: report of an extremely rare case and review of the literature. *Case Rep Obstet Gynecol.* 2012;2012:528051.
  10. Rodriguez-Caulo EA, Araji O, Miranda N, Téllez JC, Velazquez C. Aneurisma fusiforme gigante de arteria esplénica. *Cir Esp.* 2012. <http://dx.doi.org/10.1016/j.ciresp.2012.01.013>.
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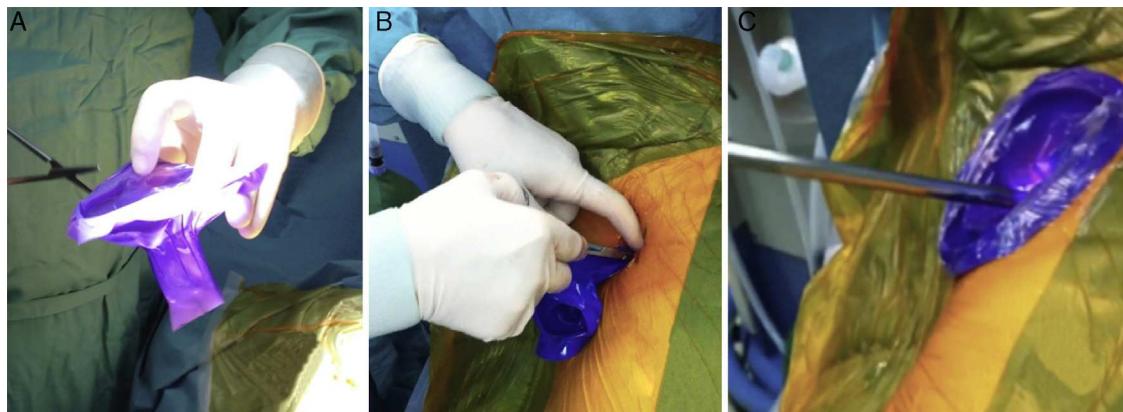
## Single-port Thoracoscopic Access for a Mediastinal Ectopic Goiter<sup>☆</sup>

### Resección toracoscópica de un bocio ectópico mediastínico por puerto único

Ectopic mediastinal goiter is a rare pathology. Treatment is based on surgical resection. Surgical approaches have been discussed in the literature, including different thoracoscopic and open techniques. We present what we believe to be the first case of resection of this disease using single-port video-assisted thoracoscopic surgery.

A 69-year-old patient underwent thyroidectomy in 2004 and had been in treatment with thyroid hormones since then. On several occasions, she consulted with her physician due to exertional dyspnea. Radiography showed a pathologic image in the mediastinum. Thoracic CT scan revealed a 3 cm paratracheal mass in the right

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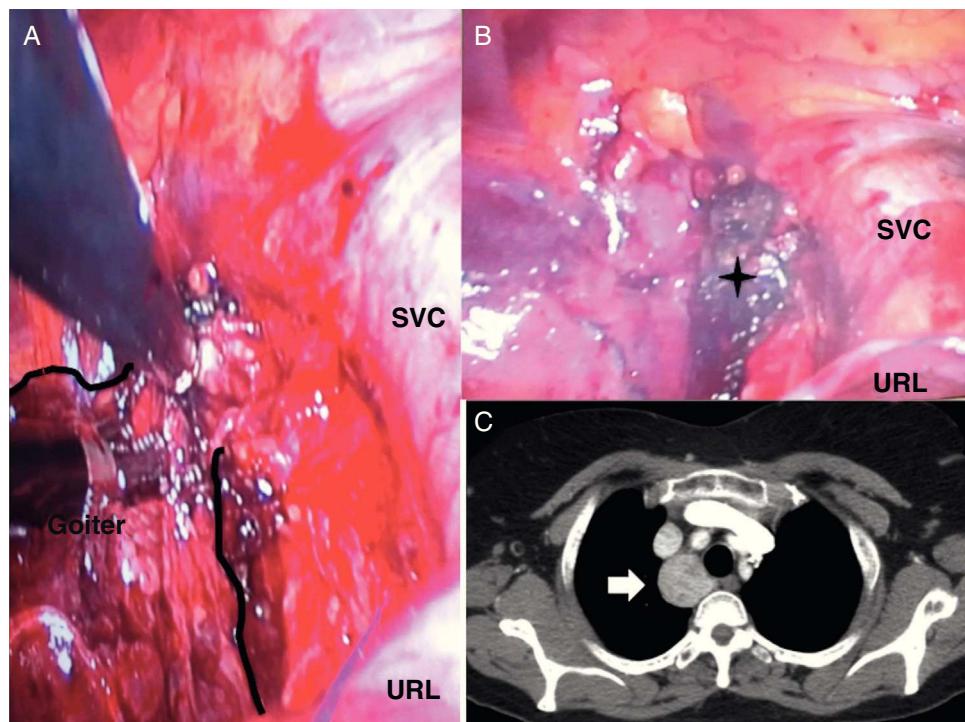
**Fig. 1 – Protection of the port with the plastic covering from a light wand: (A) Section; (B) Placement with Kocher forceps; (C) Insertion of the thoracoscope and surgical instruments.**

mid-high mediastinal region, compatible with ectopic goiter.

Video-assisted thoracic surgery (VATS) was performed under general anesthesia with selective intubation in left semilateral decubitus. A VATS approach was used through a single 4 cm incision in the fourth intercostal space along the anterior axillary line. The entry port was protected with a plastic cover (obtained by cutting the base off a light wand to give it a new use) (Fig. 1). We inserted the 10 mm 0° thoracoscope through the posterior part of the incision and the instruments through the anterior part of the incision in order to initiate the detachment of the thyroid tumor. The thyroid tissue was completely dissected with the use of thoracoscopic forceps and LigaSure® (Fig. 2), accompanied

by a Yankauer suction device. Finally, a hemostatic surgical patch was inserted at the resection site and a 20 Fr thoracic tube was left in the anterior part of the incision. The skin was closed with intradermal sutures. The thoracic tube was withdrawn after 24 h. The postoperative period was uneventful, and the patient was discharged the first day after surgery. The pathology study confirmed that the rounded fragment measuring 4×3×2 cm was a nodular goiter.

Ectopic mediastinal goiter is an uncommon condition with difficult diagnosis and treatment. Surgical resection is the main treatment and its approach has been widely discussed in the literature. The general recommendation in mediastinal goiter surgery is thoracotomy when located in the posterior mediastinum, and sternotomy when the location is anterior.



**Fig. 2 – (A) Partially resected goiter; resection was performed with endoscopic forceps and LigaSure®; (B) The star indicates the surgical bed; (C) Thoracic CT scan (axial slice) showing a 3 cm paratracheal mass (white arrow) in the right mediastinal region. SVC: superior vena cava; URL: upper right lobe.**

Some authors<sup>1</sup> specify that sternotomy should be used in cases with previous cervical thyroidectomy, invasive carcinoma or ectopic goiter. If possible, there are those who prefer cervical approaches in select cases.<sup>2,3</sup> Nevertheless, the future is moving toward minimally invasive procedures, and there are reports of ectopic mediastinal goiter resection with thoracoscopic surgery and even da Vinci robotics.<sup>4,5</sup> Since 2005,<sup>6,7</sup> several articles have been published about the single-port approach in the thorax, and recently there have even been reports of major lung resections performed through a single incision.<sup>8,9</sup>

However, we were not able to find any reports of the use of single-port VATS in this pathology. In our case, the fourth intercostal space provided better exposure and access to the apical region, and the anterior axillary line optimized the visualization of the superior-posterior mediastinum. A 30° thoracoscope was not necessary; instead, a 0° thoracoscope provided easier and more intuitive resection. We chose to use a single-port procedure, since one of the advantages over multiport surgery is that only one intercostal space is involved, which causes less postoperative pain.<sup>10</sup> And, in the interest of pain reduction, we preferred to use a single 20 Fr tube to lessen the trauma to soft tissue compared to other larger tubes. The hospital stay was very short and there were no complications.

The use of plastics to protect the port is well known, and there are manufacturers with more expensive and less expensive versions of the same product. The most basic, cheapest solution is a sterilized plastic sandwich bag. But, our idea of using the plastic covering from the light wand and using it to protect the port incision is a readily accessible resource as it is in the operating room, providing clean optics and maximizing efficiency.

In conclusion, thoracoscopic single-port resection for ectopic mediastinal goiter is another option to consider when defining an approach to this pathology because, as we have described, it is possible and allows for a shorter hospital stay, with the consequent resource savings.

#### REFRENCES

- De Perrot M, Fadel E, Mercier O, Farhamand P, Fabre D, Mussot S, et al. Surgical management of mediastinal goiters:

when is a sternotomy required? *Thorac Cardiovasc Surg.* 2007;55:39–43.

- Walz PC, Iwenofu OH, Essig GF. Ectopic mediastinal goiter successfully managed via cervical approach: case report and review of the literature. *Head Neck.* 2011. <http://dx.doi.org/10.1002/hed.21920>.
- Santini M, Fiorello A, di Lieto E, di Crescenzo VG, D'aniello G, Vicidomini G, et al. Surgical strategies in cervico-mediastinal goiters. *Minerva Chir.* 2006;61:221–9.
- Grondin SC, Buenaventura P, Luketich JD. Thoracoscopic resection of an ectopic intrathoracic goiter. *Ann Thorac Surg.* 2001;71:1697–8.
- Bodner J, Fish J, Lottersberger AC, Wetscher G, Schmid T. Robotic resection of an ectopic goiter in the mediastinum. *Surg Laparosc Endosc Percutan Tech.* 2005;15:249–51.
- Rocco G, Khalil M, Jutley R. Uniportal video-assisted thoracoscopic surgery wedge lung biopsy in the diagnosis of interstitial lung diseases. *J Thorac Cardiovasc Surg.* 2005;129:947–8.
- Rocco G, Romano V, Accardo R, Tempesta A, la Manna C, la Rocca A, et al. Awake single-access (uniportal) video-assisted thoracoscopic surgery for peripheral pulmonary nodules in a complete ambulatory setting. *Ann Thorac Surg.* 2010;89:1625–7.
- Gonzalez-Rivas D, Paradela M, Fieira E, Velasco C. Single-incision video-assisted thoracoscopic lobectomy: initial results. *J Thorac Cardiovasc Surg.* 2012;143:745–7.
- Gonzalez-Rivas D. Lobectomy: V.A.T.S. surgical evolution from conventional vats to uniportal approach. *Sci World J.* 2012;2012:780842.
- Jutley RS, Khalil MW, Rocco G. Uniportal vs standard three-port VATS technique for spontaneous pneumothorax: comparison of post-operative pain and residual paraesthesia. *Eur J Cardiothorac Surg.* 2005;28:43–6.

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## Simultaneous Colectomy and Nephrectomy in Synchronous Tumours<sup>☆</sup>

### Colectomía y nefrectomía simultánea en tumores sincrónicos

Colorectal cancer (CRC) is one of the most frequent neoplasms in both men and women. It is the fourth cause of cancer death in

our setting. Meanwhile, renal cancer represents 2% of all tumors, and renal cell carcinoma (RCC) is the most frequent type.<sup>1</sup>

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