Acknowledgements

We thank Eduardo García Pachón for his ideas and collaboration.

References

1. Cordovilla R, Jiménez-Massa A. Endobronchial tuberculosis. A case report and review of the literature. J Bronchol Intervent Pulmonol. 2009;16:121–3.
2. Jung SS, Park HS, Kim JO, Kim SY. Incidence and clinical predictors of endobronchial tuberculosis in patients with pulmonary tuberculosis. Respirology. 2015;20:488–95.
3. Miguel Campos E, Puzo Ardany C, Burgués Mauri C, Castella Riera J. A study of 73 cases of bronchial tuberculosis [article in Spanish]. Arch Bronconeumol. 2008;44:282–4.
4. Smith LS, Schillaci RF, Sarlin RF. Endobronchial tuberculosis. Serial fiberoptic bronchoscopy natural history. Chest. 1987;91:644–7.
5. Cosano Povedano A, Muñoz Cabrera L, Cosano Povedano FJ, Rubio Sánchez J, Pascual Martínez N, Escribano Dueñas A. Cinco años de experiencia en el tratamiento endoscópico de las estenosis de la vía aérea principal. Arch Bronconeumol. 2005;41:322–7.
6. Fang Y, You X, Sha W, Xiao H. Bronchoscopic ballon dilatation for tuberculosis-associated tracheal stenosis: a two case report and a literature review. J Cardiothorac Surg. 2016;11:21.
7. Chung HS, Lee JH. Bronchoscopic assessment of the evolution of endobronchial tuberculosis. Chest. 2000;117:385–92.
8. Kim Y, Lee KS, Yoon JH, Chung MP, Kim H, Kwon OJ, et al. Tuberculosis of the trachea and main bronchi: CT findings in 17 patients. AJR. 1997;168:1051–6.

María José Soler-Sempere,[a,*] María Amparo Berenguer-Díez,[b] Isabel Padilla-Navas[a]

[a] *Sección de Neumología, Hospital General Universitario de Elche, Elche, Alicante, Spain*
[b] *Medicina Familiar y Comunitaria, Hospital General Universitario de Elche, Elche, Alicante, Spain*

* Corresponding author.
E-mail address: majosoler1@hotmail.com (M.J. Soler-Sempere).

1579-2129/

Lung Cancer Screening With Low-Dose Computed Tomography is not a Question of Logistics☆

Cribado de cáncer de pulmón con tomografía computarizada de baja dosis. No es cuestión de logística

To the Editor,

We believe that the conclusions of the chapter "Early diagnosis of lung cancer. The future of screening", in the recently published SEPAR monograph,[1] which claim that the absence of a lung cancer screening program in Spain is more a question of logistics than money, merit a special comment.

While we agree with some of the statements, we disagree with many others. For example, no reference is made to the barely perceptible increase in the number of early-stage tumors detected in the NLST.[2] Cases diagnosed at stage I did not increase more than 10% when the third screening round was compared round with the first, and moreover, in all rounds, the proportion of cases detected at stage III and IV remained steady at 30%. Detecting disease at an earlier stage is the cornerstone of screening programs, since it indicates a change in the clinical course of the disease. The high percentage of detection of lung cancer at advanced stages indicates that screening is not effective in a significant proportion of the subjects analyzed.

In our opinion, this understates the risk induced by radiation, since the proposed screening programs involve an annual LDCT. The authors point out correctly that in each round there are approximately 25% positives. False positives can be reduced by using volumetric criteria instead of diameter, as indicated by the NELSON study. A positive result involves performing at least one diagnostic CT (in addition to the follow-up CTs required if subcentimeter nodules are detected), which considerably increases exposure to radiation. Approximately every 4 years, participants would receive at least 12 mSv (4 LDCT+standard CT), which between the ages of 55 and 80 years would add up to a total of 72 mSv. It has been calculated that participants in a screening program would receive more radiation than atomic bomb survivors or nuclear plant workers (up to 280 mSv in the most conservative estimate).[3]

Lung cancer screening is compared with breast and colorectal cancer screening, but they are not comparable. Unlike lung cancer screening, which is selective (smokers or former smokers), breast and colorectal screening programs are population programs, in which a positive finding on mammography or occult blood in stool can generally be confirmed in a matter of days by image-guided biopsy or colonoscopy with biopsy. A positive finding in LC screening of a subcentimeter nodule might persist for months or years before growth is confirmed or ruled out and subsequent actions are planned.

No European study has proved the effectiveness of screening. Additionally, a recent study using NLST data[4] suggested that 2-yearly screening would be just as effective as annual screening, and the accompanying editorial even claimed that the annual screening interval is not based on biological evidence, but rather on a pragmatic decision based on organizational considerations. Breast cancer screening is performed every 2 years. Data are available in Spain on the organizational aspects of a screening program.[5] Up to 1,700,000 individuals meet the screening criteria, and approximately 162 scanners dedicated exclusively to screening would be needed. The scanners alone would cost close to €1 bn.

While economic and organizational aspects are relevant, we firmly believe that the risk–benefit balance in the screening of lung cancer with LDCT is still questionable. Although screening might reduce lung cancer deaths from 21 to 18 individuals for each 1000 screened, the level of iatrogenic complications would be high. In our opinion, scientific societies should debate these issues before presenting them in a text which might be taken as recommendations, but which, in this case, do not have sufficient consensus.

☆ Please cite this article as: Ruano-Ravina A, Provencio-Pulla M, Casan Clarà P. Cribado de cáncer de pulmón con tomografía computarizada de baja dosis. No es cuestión de logística. Arch Bronconeumol. 2017;53:593–594.

Authorship

All the authors have contributed equally to the conception and drafting of this manuscript and are responsible for its content.

References

1. Pérez Warnisher MT, Cabezas Pastor E, Seijo LM. Diagnóstico precoz del cáncer de pulmón. El futuro del cribado. Clínicas Respiratorias SEPAR. Monografía N.° 4 Cáncer de pulmón. Coordinador: Matilla González JM. Editorial Respira; Barcelona; 2016. p. 13–24.
2. Aberle DR, Adams AM, Berg CD, Black WC, Clapp JD, Fagerstrom RM, et al., National Lung Screening Trial Research Team. Reduced lung-cancer mortality with low-dose computed tomographic screening. N Engl J Med. 2011;365:395–409.
3. McCunney RJ, Li J. Radiation risks in lung cancer screening programs. Chest. 2014;145:618–24.
4. Patz EF Jr, Greco E, Gatsonis C, Pinsky P, Kramer BS, Aberle DR. Lung cancer incidence and mortality in National Lung Screening Trial participants who underwent low-dose CT prevalence screening: a retrospective cohort analysis of a randomised, multicentre, diagnostic screening trial. Lancet Oncol. 2016;17:590–9.
5. Ruano-Ravina A, Provencio-Pulla M, Casan Clarà P. Cribado de cáncer de pulmón con tomografía computarizada de baja dosis. Reflexiones sobre su aplicación en España. Med Clin (Barc). 2016;147:366–70.

Alberto Ruano-Ravina,[a,b] Mariano Provencio-Pulla,[c,d] Pere Casan Clarà[e,f,*]

[a] *Área de Medicina Preventiva y Salud Pública, Universidad de Santiago de Compostela, Santiago de Compostela, La Coruña, Spain*
[b] *CIBER de Epidemiología y Salud Pública (CIBERESP), Spain*
[c] *Servicio de Oncología, Hospital Puerta de Hierro-Majadahonda, Majadahonda, Madrid, Spain*
[d] *Instituto de Investigación Puerta de Hierro-Majadahonda, Majadahonda, Madrid, Spain*
[e] *Instituto Nacional de Silicosis, Área del Pulmón, Hospital Universitario Central de Asturias, Oviedo, Asturias, Spain*
[f] *Facultad de Medicina, Universidad de Oviedo, Oviedo, Asturias, Spain*

* Corresponding author.
E-mail address: pcasan@ins.es (P. Casan Clarà).

1579-2129/

Repair of Iatrogenic Tracheobronchial Injury With Synthetic Dural Graft

Reparación de una lesión traqueobronquial yatrógena con un injerto de duramadre sintética

Dear Editor:

Tracheobronchial injury (TBI), is a rare but life-threatening clinical condition. It can be produced by blunt or open trauma of the cervical and thoracic regions, or by iatrogenic causes, including tracheal intubation, tracheotomy, bronchoscopy, tracheal and bronchial stent placement.[1] In this article, we present a case of iatrogenic TBI that was repaired using a synthetic dural graft.

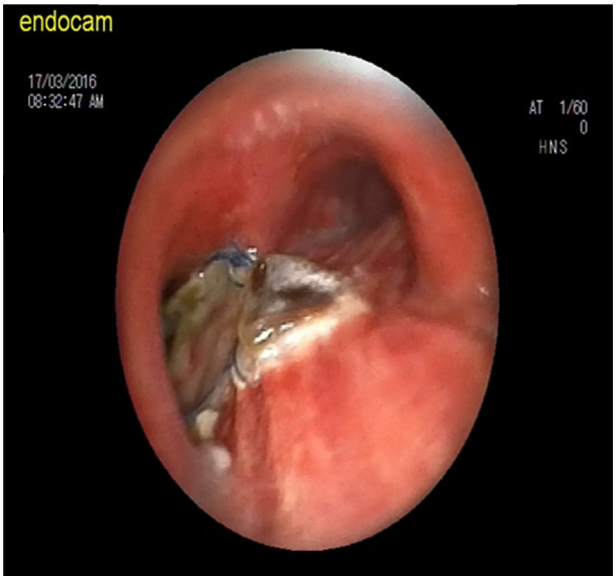

Fig. 1. FOB image at first (2-month) follow-up.

A 62-year old man presented in our hospital with weight loss and difficulty in swallowing. He was admitted to the general surgery unit and underwent gastroscopy, which revealed an ulcerated, fragile, bleeding lesion in the upper third of the esophagus. Histological study of the biopsy sample showed an epidermoid carcinoma. The patient agreed to undergo surgery. Preoperative left posterolateral thoracotomy performed to mobilize the esophagus led to a massive air leak, hypoventilation and desaturation. Emergency evaluation of the patient in the operating theater by the thoracic surgery consultant revealed a rupture. Primary repair of the injury was impossible due to a severe stricture observed in the left upper bronchus caused by cartilage tissue loss in the trachea. Given the state of emergency, a synthetic dural graft (polyethylene terephthalate, dimethyl siloxane) was placed on the injured area and anastomosed with 4/0 polyproylene suture. The graft line was reinforced with fibrin sealant and the application of a composite mesh. After oxygenation, an end-to-end anastomotic stapler was used to reconnect the proximal esophagus to the stomach fundus. The patient was discharged from the hospital 15 days after surgery, and was followed up at 2 and 3 months with fiber optic bronchoscopy (FOB) to evaluate the tracheobronchial lumen and graft (Fig. 1). The graft remained intact with no air leakage and no narrowing at the distal third of the trachea, carina and proximal left main bronchus. The patient is still being followed-up at our clinic.

Eighty percent of TBI's occur around the carina, mainly in the left main bronchus.[2] Primary surgical repair is the treatment of choice. However, based on clinical and endoscopic findings, conservative treatment can be employed in some cases.[3] In our case, a rupture measuring approximately 3 cm was observed in the left distal trachea, carina and cartilage and membranous portions of the left main bronchus, with a width of 1 cm in the carina, necessitating the use of the synthetic dural graft.

Bostanci et al. reported repairing a 7 cm rupture of the membranous trachea with a pleural patch and vascular graft.[4] In our case, a review of the literature did not yield any reports of TBI repair with synthetic dural graft.

We present this case to show that a synthetic dural graft, which is durable, water tight and highly elastic, can be a good alternative for TBI repair under appropriate conditions.