Sandblasting in the Naval Industry: Another Life-Threatening Activity Related to Silicosis

Pulido con arena en la industria naval: otra actividad potencialmente letal relacionada con la silicosis

Dear Editor,

We read with great interest the case reported by Bueno Palomino,1 which alerted pulmonologists to the occupational risks faced by sandblasting.

We would like to highlight the risks of a similar activity: sandblasting used in heavy industry, especially in shipbuilding to clean boilers and ship hulls. Abrasive blasting involves the projection of abrasive particles against a surface (often glass or metal) using compressed air. In 1949, the United Kingdom adopted regulations for blasting activities that severely restricted the use of abrasive products containing free silica. In 1992, the National Institute for Occupational Safety and Health recommended that the use of sand in abrasive blasting should be banned in the United States.

Silicosis in sandblasting workers in the shipbuilding industry represents the most aggressive form of the disease, with evidence of progressive massive fibrosis in about 40% of cases.2 Cases of silicoproteinosis have been reported in this group of patients.

Silicoproteinosis may develop after a relatively short period of heavy exposure to fine particulate silica (e.g., in sandblasting activities). The disease often progresses rapidly, manifesting within months or a few years after initial exposure. Symptoms include progressive shortness of breath that invariably leads to acute respiratory failure. Prognosis is very poor and most reported cases die within months. The pathological features of silicoproteinosis differ from those of chronic silicosis and resemble those of primary alveolar proteinosis. No effective treatment has been described and management consists only of supportive care.2–4

The high-resolution CT findings of silicoproteinosis consist of bilateral air-space disease manifesting as consolidation, ground-glass opacities, and centrilobular nodules. Punctate calcifications superimposed in areas of consolidation and calcified lymph nodes are commonly seen.3,4 (Fig. 1).

Although it is difficult to envision the continued occurrence of silicoproteinosis in modern society, sporadic cases continue to be reported, especially in underdeveloped countries. Radiologists and pulmonologists should be aware of the clinical presentation and imaging patterns of this serious and progressive disease, which can rapidly lead to fatal outcomes after the onset of symptoms.

Fig. 1. A 29-year-old man with silicoproteinosis. The patient was a sandblaster in the naval industry, with a history of exposure to silica of 2.8 years. CT scans of upper (A) and lower (B) lobes show numerous bilateral airspace nodules, some of them confluent (white arrows) with areas of consolidation in both lungs. Calcified mediastinal and hilar lymph nodes (black arrows) are also evident.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

Self-citations Should Be Counted

Las autocitas deberían considerarse relevantes

Dear Editor,

De Granda-Orive et al.¹ argue that self-citations should not be counted when measuring the impact of publications. Garcia-Pachón et al.² argue that self-citations should be counted in journals with limited distributions—particularly those that are not published in English. I want to propose a third alternative. This is that the in-text citations should be counted rather than those in the reference lists—and more than once if they occur more than once in the text.

I have published my reasons for suggesting this elsewhere.³ They are briefly summarised as:

- The number of in-text citations indicates the weight attached to these references in an article (Hou et al.)⁴ This weight is reduced if there are many in-text citations but only one or two in the reference list at the end. This reasoning applies both to self-citations as well as conventional ones.

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References


James Hartley

E-mail address: j.hartley@keele.ac.uk

Mediastinal Vagus Nerve Schwannoma Successfully Treated by a Biportal VATS Approach

Schwannoma del nervio vago mediastínico tratado exitosamente con toracoscopia bipolar videoasistida

Dear Editor,

In March 2010, a 60-year-old male non-smoker was referred to our Thoracic Surgery Unit with a history of dyspepsia during the previous three months and two episodes of syncope.

Past medical history included left hemicolectomy resection for pT1pN0 adenocarcinoma of the sigma more than 10 years previously. Colonoscopy was performed 6 months before our observation during a routine follow-up appointment and proved negative. Electrocardiogram (EKG) revealed sinus bradycardia; transthoracic echocardiography (TTE) showed normal left ventricular function with no segmental kinetic changes, no valvular stenosis or insufficiency and normal ejection fraction. Tilt test was negative. Neurologic examination and computed tomography (CT) scan of the head were also negative for expansive or ischemic/hemorrhagic lesions.

Chest X-ray revealed mild prominence of the right heart border. Subsequent chest CT scan with iodine contrast medium showed a soft, well-defined, encapsulated paratracheal and retrocalvial lesion measuring 24 mm x 26 mm (Fig. 1A), located in the proximity of the azygos vein arch. An 18F-FDG PET scan (Fig. 1B) revealed an increased uptake value corresponding with the lesion [standard uptake value (SUV) = 5.91]. After the weekly discussion meeting, we decided to perform transbronchial needle aspiration (TBNA); biopsy revealed nerve cells, compatible with low-grade nerve tissue tumor.

The patient was scheduled for surgery and underwent successful enucleation of the mediastinal lesion using a biportal thoracoscopic approach. The patient was placed in left lateral decubitus. Single lung ventilation was achieved using a double-lumen endobronchial tube positioned under fiberoptic guidance. A 4-centimeter surgical access was made in the 4th intercostal space and a second thoracotomy for the camera was made under

References


Edson Marchiori,* Miriam Menna Barreto, Gláucia Zanetti

Departamento de Radiologia, Universidade Federal de Rio de Janeiro, Rio de Janeiro, Brazil

*Corresponding author.

E-mail address: edmarchiori@gmail.com (E. Marchiori).

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