Solitary fibrous tumor of the pleura: 3 case reports

Tumor fibroso solitário de pleura: relato de 3 casos

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Summary

Introduction: solitary fibrous tumor of the pleura (SFTP) is a rare tumor arising from mesenchymatous cells in submesothelial pleural tissue which, unlike mesothelioma, is not related to asbestos or smoking.
Methods: report of four patients who underwent surgical treatment for giant SFTP and review of the pertinent literature.
Results: of the four patients operated, two presented symptoms including cough, chest pain and feeling of compression, whereas the other two subjects were asymptomatic. All patients underwent complete surgical resection by wide posterolateral thoracotomy, and surgical specimens removed with minimum bleeding. None of the cases required complementary lobectomy or segmentectomy. All tumors were histologically benign.
Conclusion: complete resection of the lesion is the treatment of choice in all SFTP cases. Prognosis of the benign lesion is excellent, although close follow-up is necessary. In the rarer, more aggressive forms, treatment may be complemented by adjunctive chemotherapy or radiotherapy, the benefits of which have yet to be confirmed.

Keywords: neoplasms, fibrous tissue, solitary fibrous tumor, pleural, pleural neoplasms.

Introduction

Solitary fibrous tumor of the pleura (SFTP) is a rare tumor arising from mesenchymatous cells in submesothelial pleural tissue which, unlike mesothelioma, is not related to asbestos or smoking.[1]

Historically, many names have been used to designate this neoplasm because of the controversy surrounding its histogenesis. Today, the source is widely recognized as mesenchymal cells of the pleural submesothelial tissue instead of mesothelial cells.

SFTPs are often asymptomatic in their early stages and are often discovered by chance with routine chest radiography. Parts of these tumors tend to grow into massive injury before there is local compression symptoms.[2,3]

They affect mainly adults between the sixth and seventh decades of life with the same distribution between men and women, and represent less than 5% of all tumors of the pleura.[1,5]

Clinical case 1

Patient aged 55, referring mild discomfort in the right hemithorax, and with radiological image presenting large mass in the chest. Previous biopsy revealed a fibrous tumor. After surgical resection, the surgical specimen weighed 5.5 kg (Figure 1).

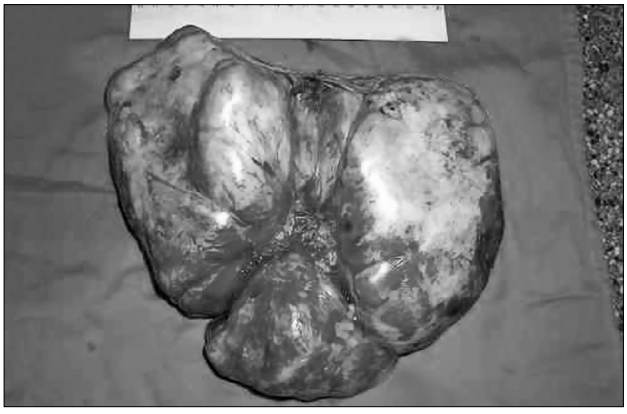

FIGURE 1 Tumor mass in the right hemithorax.

Clinical case 2

Patient aged 63 years with no history of smoking, had a persistent cough for several years and presented digital clubbing (Figure 2). Chest tomography showed a mass at the right lung base (Figure 3).

Clinical case 3

Patient aged 51 years, with no apparent complaint, underwent chest X-ray that revealed a mass in the right hemithorax confirmed by computed tomography.

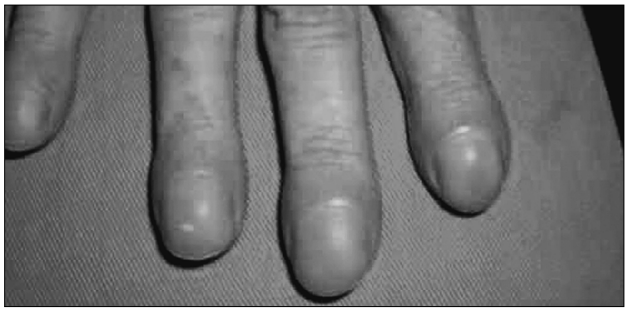

FIGURE 2 Clubbing.

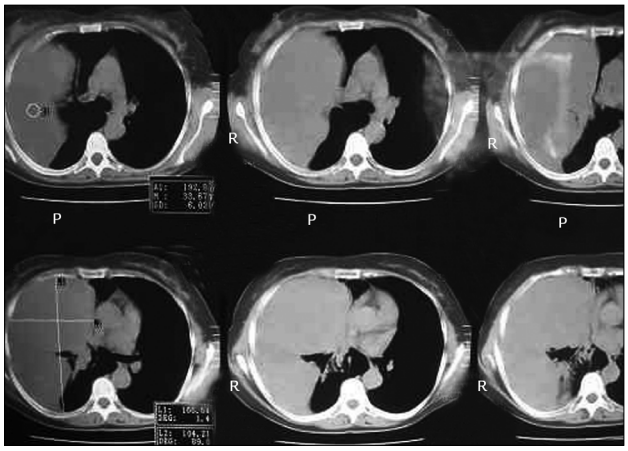

FIGURE 3 Large mass occupying the right hemithorax.

The patient underwent surgical resection, with confirmation of pathology as fibrous mesothelioma, weighing 916 g.

Discussion

SFTPs are rare neoplasms, with slow growth. They represent less than 5% of all pleural neoplasms and have received different names because of their uncertain histogenesis and biological behavior: localized fibrous tumor of the pleura, primary mesothelioma, localized fibrous mesothelioma, benign localized fibroma, or submesothelial fibroma.[6]

Symptoms include cough, chest pain and dyspnea. Clubbing and hypertrophic osteoarthropathy (Pierre Marie-Bamberger syndrome) have been reported in 10 to 20% of patients. In less than five percent of the patients, the tumor may secrete insulin, which causes intractable hypoglycemia (Doege-Potter's syndrome).[4]

In the radiological chest image, the tumor appears as a solitary mass of well-defined borders and lobulated, with no evidence of invasion.[7]

Conclusion

Complete resection of the lesion is the treatment of choice in all cases. The prognosis of benign lesions is excellent, although careful late follow-up evaluation is required[8] for the aggressive types, which are rare. This can be complemented by chemotherapy or radiation therapy, but the benefits have not been proven.[9]

Resumo

Tumor fibroso solitário de pleura: relato de 3 casos.

Introdução: o tumor fibroso solitário de pleura (TFSP) é um tumor raro com origem nas células mesenquimatosas do tecido pleural submesotelial, que, ao contrário do mesotelioma, não tem relação com asbesto ou tabagismo.
Método: relato de caso de quatro pacientes submetidos a tratamento cirúrgico para TFSP gigante e revisão da literatura pertinente.
Resultados: dos quatro pacientes operados, dois apresentaram sintomas como tosse, dores no peito e sensação de compressão enquanto os demais foram assintomáticos. Todos os pacientes foram submetidos à ressecção cirúrgica total por toracotomia posterolateral ampla, sendo os espécimes cirúrgicos removidos com mínimo sangramento. Em nenhum dos casos houve necessidade de lobectomia ou segmentectomia complementar. Todos os tumores eram histologicamente benignos.
Conclusão: a ressecção total da lesão constitui o tratamento de escolha em todos os casos de TFSP. O prognóstico de lesões benignas é excelente embora o acompanhamento seja necessário. Nas formas mais raras e agressivas, o tratamento pode incluir quimioterapia ou radioterapia adjunta, cujos benefícios ainda não foram confirmados.

Palavras-chave: tumor fibroso solitário pleural, neoplasias pleurais, pleura.

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