Abstract

Fibrous dysplasia is an osseous pathology and bone structure is replaced by fibro-osseous tissue. Our patient was a 36-year-old female with a complaint of swelling on the right side of chest for seven years. A magnetic resonance imaging of the thorax showed a mass measuring 86x28 mm in diameter in the right anterolateral chest wall that was marked after intravenous administration of contrast medium. The mass was removed by thoracoscopic technique. Histopathologic examination confirmed the diagnosis of fibrous dysplasia. We believe that video-assisted thoracoscopic surgery will be main procedure for the surgical management of fibrous dysplasia of ribs in next years. ( Sakarya Med J 2015, 5(4):230-233 )

Keywords: Chest wall, Fibrous dysplasia, Thoracoscopy

Özet


Anahtar Kelimeler: Göğüs duvarı; Fibröz displazi; Thorakoskopia
INTRODUCTION
Fibrous dysplasia (FD) is a osseous abnormality and bone structure is replaced by fibro-osseous tissue\(^1\). This change causes expansion and loss of the bone cortex. FD may effect the single or multiple bones\(^2\). Femur, humerus, skull and ribs are the most commonly affected bones\(^3\). This benign tumour is approximately 30% non-malignant thoracic wall tumours\(^4\). The management of FD includes operative and non-operative methods. Video-assisted thoracoscopic surgery can be easily applied technique in thoracic FD when surgical intervention is indicated. Hence, we present a patient with thoracic fibrous dysplasia who was treated by thoracoscopic technique. To the best of our knowledge, the treatment of fibrous dysplasia with video-assisted thoracoscopic surgery has not been previously reported in Turkey.

CASE REPORT
Our patient was a 36-year-old female with a complaint of swelling on the right side of chest for seven years. On physical examination, a 8x2 cm painful mass lesion was noted on the right anterolateral region of chest. A magnetic resonance imaging of the thorax showed a mass measuring 86x28 mm in diameter in the right anterolateral chest wall that was marked after intravenous administration of contrast medium (Figure 1). For diagnosis and treatment, the patient was prepared for surgery. After double lumen intubation, the patient was placed in the left lateral decubitus position and an incision 1 cm in length was made at seventh intercostal space at posterior axillary line. After entering the thorax, a thirty-degree camera inserted through this opening. Under the camera guidance, a second incision 2 cm in length was made at sixth intercostal space at anterior axillary line. The periosteum of fifth rib was stripped. Afterward, the rib was cut and removed (Figure 2). Single chest tube was inserted. Histopathologic examination confirmed the diagnosis of fibrous dysplasia. Postoperative period was uneventful.

DISCUSSION
Fibrous dysplasia is a non-malignant osseous tumour and it is approximately 7% of benign skeletal tumours\(^3\). Three quarters of patients are under the seventy-five years\(^3\). FD has two forms follow as polyostotic and monostotic forms and polyostotic FD may be associated with McCune-Albright syndrome including caf’e-au-lait cutaneous pigmentation, polyostotic FD, and endocrine hyperfunction\(^1\).

Figure 1. The magnetic resonance imaging of the thorax showed a mass measuring 86x28 mm in diameter in the right anterolateral chest wall.

Figure 1. A: The thoracoscopic imaging of periosteal stripping. B: Removing of the resected rib from a 2-cm incision.
Clinical presentation depends on location of pathologic process. The most common complaint is pain. Rapid increase in size of lesion may occur because of malignant transformation. Skeletal deformity, pathologic fractures, neural involvement and malignant transformation are terrible events.

Asymptomatic and mild symptomatic patients should be observed. Surgical intervention is indicated in presence or suspicion of malignancy, ineffective conservative therapy and improve the skeletal deformity. Surgical therapy of thoracic FD includes open and thoracoscopic surgery. Traditionally, open surgery has been performed for many years in thoracic FD. Despite the widespread use of thoracoscopy in thoracic surgery, thoracoscopic management of FD has been reported rarely. We believe that video-assisted thoracoscopic surgery is easily applied in these tumours and this technique will be main procedure for the surgical management of fibrous dysplasia of ribs in next years.


