Case Report

Desmoplastic Fibroblastoma (Collagenous Fibroma) of Thigh - A Rare Case Report

Medha Shankarling¹, Kuladeepa Ananda Vaidya², Sukesh³

¹D.C.P., M.D., Assistant professor, department of pathology, Srinivas institute of medical sciences and research centre, Mukka, Mangalore.
²M.D., Assistant professor, department of pathology, Srinivas institute of medical sciences and research centre, Mukka, Mangalore.
³M.D., Professor and head of the department of pathology, Srinivas institute of medical sciences and research centre, Mukka, Mangalore.

Abstract: Desmoplastic fibroblastoma (collagenous fibroma) is a rare benign fibrous tumour thought to arise from subcutaneous tissue or skeletal muscle. We herein report a case of elderly female presented with a slow growing non tender mass on anterior aspect of right thigh. Radiological investigation showed a mass in intermuscular plane. Lumpectomy was performed, histopathologic examination of the subsequent specimen confirmed the diagnosis of desmoplastic fibroblastoma.

Keywords: Desmoplastic fibroblastoma, collagenous fibroma, benign tumour, histopathologic examination

INTRODUCTION

Desmoplastic fibroblastoma, also known as collagenous fibroma (CF) is a benign fibroblastic/myofibroblastic tumour, typically occurs in the subcutaneous tissue or skeletal muscle in adults [1]. Evans was the first to introduce the term desmoplastic fibroblastoma, in 1995, a unique fibrous soft tissue tumour comprising spindle-shaped to stellate fibroblastic cells sparsely distributed in a dense fibrous background [2, 3]. It presents as a painless, firm, well-circumscribed mass of long standing-duration and behaves in a benign fashion. There is no evidence of bone involvement except for a rare case with surface erosion [4].

Case report

A 60-year-old previously healthy female presented with 1-year history of slow growing lump with dull aching pain at lower part of right thigh. She had no history of trauma. Physical examination revealed a mobile, irregularly round, firm palpable mass deeply seated in the quadriceps muscle on anterior aspect of lower thigh. Mass was not associated with tenderness or pathological change in the overlying skin.

A plain radiograph of knee joint showed features of osteoarthritis but no evidence of soft tissue calcification was seen. Ultrasonography showed an avascular homogenous hyperechoic soft tissue mass measuring 5x4cm located above the knee joint, close to joint capsule in subfascial plane below the rectus femoris muscle. Ultrasonography guided FNA was performed but yielded scanty material composed of occasional fragments of fibrocollagenous stromal material and was suspicious of benign spindle cell lesion. Excision biopsy was done and sent for histopathological examination.

A globular, circumscribed, unencapsulated grey white soft tissue mass m/s 4.5x3.5x2.5cm was received covered with fibrofatty tissue. Cut section was pearly grey in color, lobulated with firm cartilage like consistency (Figure 1). Section studied with hematoxylin & eosin stain showed well circumscribed lesion. Tumour cells with bland nuclei dispersed in predominantly fibrous, hyalinized collagenous stroma and focal myxocollagenous stroma (Figure 2). Tumour is intersected by fibrous septa and interspersed with inconspicuous thin walled blood vessels. No evidence of necrosis, nuclear atypia or abnormal mitosis. Final diagnosis of desmoplastic fibroblastoma (collagenous fibroma) was rendered.

Fig. 1: Cut section of mass showing pearly grey lobulated appearance
CONCLUSION

Desmoplastic fibroblastoma (collagenous fibroma) is a rare benign tumour of fibroblastic differentiation. It can pose diagnostic dilemma for pathologists due to its histological similarity with other soft tissue tumours of fibroblastic/myofibroblastic differentiation. Careful microscopic evaluation helps in distinguishing it from other locally aggressive tumour like desmoid tumour.

REFERENCES


