OSTEOID OSTEOMA IN NECK OF FEMUR

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MJAFI 1999; 55 : 163-164

KEY WORDS: Osteoid osteoma

Introduction

Osteoid osteoma is a tumour commonly diagnosed in young males and females between the ages of 10 and 30 years. Bones of lower extremity tibia and femur are predominantly involved. It may also be found in a vertebra. Jaffe in 1935, believed it to be a very slow growing neoplasm. But, because of its self-limiting nature, its shell of bony sclerosis and its characteristic location, some believe that it is infective in origin. In some cases staphylococcus has been cultured [1]. A vascular lesion or embryonic rest has also been suggested.

Case Report

A 20-year-old naval cadet reported to our hospital with history of pain in the right hip, limping and disturbed sleep for last 15 months. Patient's complaints started in the month of Aug 96. Initially his course mates noticed a limp in his gait. Subsequently he started having dull aching pain over outer aspect of his right hip, which slowly involved the whole limb. Patient had difficulty in weight bearing on right side, especially during prolonged walking, running and jumping. Later patient started having disturbed sleep because of pain. He complained of restricted movements of right hip and inability to squat or sit cross legged. Patient reported to unit Medical Officer who prescribed him NSAIDS. Patient had dramatic relief on taking the drugs. But his relief was for a short duration and his complaints continued. Patient was referred to Command Hospital (SC), Pune.

On examination patient was found to be averagely built and nourished. Vital parameters were within normal limits. Patient had no clinical evidence of any systemic disease. Patient had an antalgic gait. On examination of right hip there was no swelling, skin over the affected hip was normal. On palpation there was no tenderness. Flexion & internal rotation was restricted in extreme due to pain. All other movements were full and free. After routine investigations, X-ray and CT scan (Fig 1) of right hip was done which revealed a osteolytic lesion subcapital in location, about 1 cm in diameter, with a central dense nidus. Thus a diagnosis of Osteoid osteoma neck of femur was given [2].

Patient was taken up for surgery on 23 Feb 98. Watson Jones lateral approach was taken. After delineating gluteus medius and tensor fascia lata, a 'V' shaped flap of gluteus medius muscle was raised and capsule was incised. The neck of femur was delineated

till the head. In the subcapital area superiorly a reddish brown lesion about 1 cm in diameter was seen. The lesion was excised and curettage done. The remaining cavity was cauterised. The wound was closed in layers and a closed suction drain was inserted. Excised tissue was sent for histopathology. Post operative CT-scan (Fig 2) and plain radiograph confirmed complete excision of the lesion with the dense nidus. Post operatively patient recovered rapidly & uneventfully. Two weeks post operatively patient was discharged with advice to actively mobilise the right hip.

Histopathology showed three areas. Inner area of vascular granulation tissue containing osteoblasts and outside this, calcification and osteoid formation surrounded by trabecular formation of bone in various stages of organisation. And thus the excised tissue was confirmed to be an Osteoid osteoma.

Patient reported for review after six months. He had achieved painless full and free movements of the right hip (Fig 3 & 4). He was able to carry out all the training activities at the unit without any complaints. He was made fit for all duties.

Discussion

Osteoid osteoma presents with pain frequently in the night, which is not aggravated by exercise or posi-

Fig. 1 : The preoperative CT scan of the right hip showing the lesion

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Fig. 2 : The postoperative CT scan of the right hip after complete excision of the lesion

tion, but is often relieved specifically, although empirically, by salicylates. They may present as a tender swelling when in a superficial site e.g. in tibia without any increase in local temperature. The pain is believed to result from the lesion being very vascular with numerous nerve fibers. Oedema and increased tension results in stimulation of these nerve endings. [3].

On X-ray examination the usual findings are a zone of bony sclerosis surrounding a radiolucent nidus of variable size although these classic features may take some months to develop. The bone reaction of sclerosis or increased bone density can arise from either endosteal or periosteal surfaces, as it may lie within the center. This condition has to be distinguished from sclerosing non-suppurative osteomyelitis of Garre, Brodies abscess, Osteogenic sarcoma, Ewings sarcoma and non ossifying fibroma.

Complete resection, if possible, provides cure but partial removal of the sclerotic bone and the nidus is often sufficient for symptomatic improvement. Medical management may give dramatic relief but the definitive treatment remains surgery. [4] Malignancy has not been reported after surgical treatment. Recurrence after surgical resection is seldom reported, but when it does it is usually ascribed to incomplete removal of

Figs. 3 & 4 : The photographs of cadet showing full range of right hip movement, one of the photographs shows the well healed operative scar

the nidus [5].

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