

Freiberg's Disease in Urgent Care

Case Report

Abstract

Freiberg's disease is a rare disease of the bone affecting the head of the second metacarpal in young females in the second decade resulting from osteonecrosis due to a multifactorial aetiology [1]. In this study, we present a case of Freiberg's disease affecting the head of the third metacarpal bone in a 43-year-old female with characteristic X ray findings, to increase its awareness as early diagnosis and treatment can limit disability.

Key words: Freiberg's disease, osteonecrosis, metatarsal bone, avascular necrosis

Introduction:

Freiberg's disease is an uncommon condition characterised by avascular necrosis of the metatarsal heads in adolescent females [2]. Both trauma and vascular compromise contribute to the aetiology and association with Systemic lupus erythematosus and diabetes have been noted¹. Patients present with atraumatic foot pain and swelling. Both radiology and MRI appearances are characteristic [3].

Case report:

A 43-year-old female patient attended our UCC with ongoing right foot pain and swelling exacerbated by walking. There was no history of trauma. Examination revealed swelling to the dorsum of the foot with local tenderness to the head of the third metatarsal. In the Plain X-ray, the head of the third metatarsal was flattened and misshapen, consistent with Freiberg's disease, with further flattening of the base of the third proximal phalanx.

Kashif Shakeel, Tom Jose, Thomas Mathew, Ayotunde Oguntade, Charles Wayawa

Corresponding author - tommjoe35@yahoo.com

Go-to-doc Health care, Royal Preston Hospital

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Discussion:

Freiberg's disease is characterised by osteonecrosis due to vascular compromise and multiple micro-trauma to the heads of the metatarsal bones [4]. The condition is more common in adolescent overweight females and some association to wearing high heels is also described [4]. The clinical presentation is usually with atraumatic foot pain and swelling made worse by weight bearing. Common differentials include stress fracture, capsulitis, arthritis, and neuromas. There is fragmentation and collapse of the joint with loss of cartilage and flattening of the bone [5]. Radiographs show early osteopenia and later flattening of the metatarsal head [4]. MRI will reveal earlier signs in the form of bone marrow oedema [6]. Early treatment is conservative with rest and activity modification [7]. Surgical treatments include debridement, joint replacement, resection of metatarsal head, bone grafting and osteotomy [8].

Conclusion:

Freiberg's disease should be suspected in patients presenting with atraumatic foot pain especially in the region of the metatarsal heads. Early diagnosis is possible by closely examining radiographs so that appropriate treatments can be instituted early, limiting functional disability.

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