

Monostotic melorheostosis and trigger finger

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INTRODUCTION

Melorheostosis is a rare, non-familial and benign disorder, sclerosing dysplasia affecting the skeleton and adjacent soft tissues¹. It was first described by Leri and Joanny, and was known as Leri's disease². This rare condition has a prevalence of 1 in 1,000,000¹.

The etymology of "melorheostosis" is derived from the Greek "melos" meaning limb, "rhein" meaning flowing and "ostosis" meaning bone formation¹. This condition is thought to be caused by a defect in intramembranous and endochondral bone formation leading to irregular thickening of cortical bone. It mainly involves the diaphysis of long bones but it could also involve hand, foot and axial skeleton. It may affect a single bone (monostotic), a single limb (monomelic) or multiple bones (polyostotic)³⁻⁴.

Clinical manifestations are pain, swelling, stiffness, limitation of joint movement and deformity, and rarely tenosynovitis with trigger-finger. However, sometimes symptoms are not present and diagnosis is a result of an incidental radiological discovery. Plain radiography is the key for diagnosis^{1,3}.

CASE REPORT

A 55 years-old man was referred to our Rheumatology Department with a year history of painful triggering of his left thumb. He complained of pain on first metacarpal joint and difficulty in completely extending the left thumb, with an audible click sound. There was no traumatic history. Physical examination revealed tenderness over flexor pollicis longus tendon, proximal to A1 pulley in palpation, with active extension deficit (passive extension was normal) and flexion being fully preserved.

He had a background history of smoking habits in the past and colon cancer in 2012 with surgical resec-



FIGURE 1, 2 and 3. Linear periosteal hyperostosis along the cortex of first left metacarpal, resembling the "dripping or flowing of candle wax"

tion without metastasis.

Hematological and biochemical parameters including phosphorus-calcium metabolism, alkaline phosphatase and inflammatory parameters were normal. Ra-

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FIGURE 4. Bone scintigraphy with Tc-99m-MDP showing mild uptake on first left metacarpal.

diographic assessment of hands showed a linear periosteal hyperostosis along the cortex of first left metacarpal, resembling the dripping or flowing of candle wax (Figures 1, 2, 3). Ultrasound showed a minimal effusion with thickening of flexor pollicis longus tendon, proximal to A1 pulley. Due to his neoplastic antecedents we performed a bone scintigraphy with Tc-99m-MDP to rule out bone metastasis and only mild uptake on first left metacarpal was present (Figure 4).

The diagnosis of monostotic melorheostosis of first metacarpal with flexor pollicis longus tenosynovitis was made. The patient was treated with etoricoxib 90 mg, topical diclofenac and physiotherapy without success. We performed a tendon sheath ultrasound-guided infiltration with 40 mg of methylprednisolone with resolution of complains.

DISCUSSION AND CONCLUSION

Melorheostosis is a very rare sporadic sclerosis bone dysplasia of unclear etiology and could be a trigger finger cause¹. Soft tissue swelling and fibrosis may consequently lead to sequelae with clinical symptoms such as carpal tunnel syndrome or trigger finger⁵. Radiographs remains the main key for diagnosis, however magnetic resonance imaging or bone scintigraphy may be necessary for differential diagnosis such as osteoma, osteosarcoma, osteopoikilosis, bone metastasis, or malformations of blood vessels/ lymphatics^{1, 3-4}. The authors draw attention to this rare clinical and imaging condition that could be associated with trigger finger.

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