# SPOTTED BONE DISEASE (OSTEOPOIKILOSIS)

Mimi Omar *MFamMed (Malaya),* Family Medicine Specialist, Klinik Kesihatan Kelana Jaya Asnida Anjang Abdul Rahman *MD (USM),* Medical Officer, Klinik Kesihatan Kelana Jaya Abdul Malik Mohd. Hussein *FRCS (Glasgow),* Consultant Orthopaedic Surgeon, Damansara Specialist Hospital Norita Mustafa *Master Radiology (UKM),* Consultant Radiologist, Tengku Ampuan Rahimah Hospital

Mimi O, Asnida AAR, Abdul Malik MH, Norita M. Spotted bone disease (osteopoikilosis). The Family Physician 2005;13(3):15

#### Introduction

We report here a rare case of osteopoikilosis which presented in a male Punjabi teenager. Osteopoikilosis is defined as 'an asymptomatic, autosomal dominant trait in which pea-sized sclerotic spots are prominent in the metaphyseal area'.<sup>1</sup> It is also known as Buschke-Ollendorf Syndrome, dermatofibrosis lenticularis, disseminated dermatofibrosis, osteodermatopoikilosis, osteopathic condensans disseminata and spotted bone disease. This is the second case of osteopoikilosis that has been documented in Malaysia.

## The patient

GS, a 17 years old Punjabi male student was seen at the outpatient clinic with a complaint of pain of his right wrist on and off for the past one month. He was an active Taekwondo exponent and had a history of trauma to the wrist six months ago but was not able to recall any injury to the wrist during recent matches. His right wrist was found to be slightly swollen and tender with no increased warmth or redness.

Radiograph of right hand showed multiple well defined dense radio-opaque spots in the distal end of the radius and ulna, carpal, metacarpal and phalangeal bones. As the radiological findings were unexpected, an X-ray of the left wrist was taken which showed similar findings. The diagnosis of osteopoikilosis was confirmed on orthopaedic and radiological consultations.

Since the condition is inherited, a family study was done. However the X-rays of his parents and younger brother did not show the typical radiological characteristic of osteopoikilosis although X-rays of his father's wrists and pelvis showed a single homogenous density at the distal ends of the right radius and right third metacarpal bone; the significance of which was uncertain.

GS was treated with an analgesic and was well on follow-up visit. The condition was explained to the patient and his family and they were reassured that the condition was benign.

Address for correspondence: Dr Mimi Omar, Pakar Perubatan Keluarga, Klinik Kesihatan Kelana Jaya, Lot 38294, Jalan SS 6/3A, 47301 Kelana Jaya, Selangor. Email: drmimiomar@hotmail.com

## Figure 1: X-ray of right hand



### Discussion

Osteopoikilosis is a rare bone dysplasia which is inherited as an autosomal dominant trait with a prevalence of less than 0.1 per million.<sup>1</sup> It is characterised by dense ovoid or circular spots in cancellous bone which may appear at birth or during skeletal growth. It is usually found in the metaphyseal and epiphyseal regions of long bones, the carpals and tarsals, the end of large turbular bones and around the acetabula.

It is clinically asymptomatic and occasionally associated with hereditary multiple exostosis and dermatofibrosis lenticularis disseminata. It is not associated with spontaneous fractures and treatment is unnecessary.<sup>1,2</sup> However a case of osteosarcoma developing in a man with osteopoikilosis has been reported.<sup>3</sup>

The first case of osteopoikilosis was reported in Malaysia four years ago in a 25 years old lady who is also of Indian descent.<sup>4</sup> It would be interesting to know if these two patients are related.

Since the bone lesions could easily be mistaken for metastatic disease, it is important that family physicians be aware of the benign nature of this condition.

#### References

- Strewler GJ. Diseases of Bone and Bone Mineral Metabolism. In: Wyngaarden JB, Smith LH. Cecil Textbook of Medicine. 17<sup>th</sup> ed. Tokyo: Igaku-Shoin/Saunders International; 1985.
- Tachdjian MO. Östeopoikilosis (Spotted Bones). In: Wicklang EH Jr. Paediatric Orthopaedics. 2nd ed. Philadelphia: W.B.Saunders; 1990:815-6
- Mindell ER., Northup CS, Douglass HO Jr. Osteosarcoma associated with osteopoikilosis. J Bone Joint Surg. 1978 Apr;60(3):406-8 [PubMed]
- 4. Pan KL, Ibrahim S. Osteopoikilosis a case report. Med J Malaysia. 2000 Sep;55 Suppl C:107-8. [PubMed]

15

# Case Report