

Lower-back pain, intervertebral-disc calcification and scleral pigmentation

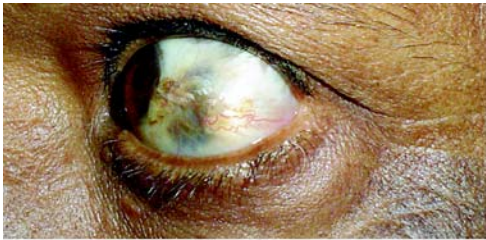
Aman Sharma, Shefali K Sharma, Ajay Wanchu, Manish Kumar, Surjit Singh and Pradeep Bambery

A 54-year-old man presented with a 3-year history of non-inflammatory pain in his lower back, and his hip and knee joints. He also had black discoloration of the palms, cheeks and sclerae (Box 1A) and his urine turned black on alkalinisation (Box 1B). Spinal x-rays showed intervertebral disc calcification

(Box 1C). A diagnosis of alkaptonuria (ochronosis) was made.

The calcification of intervertebral discs is caused by calcium hydroxyapatite. Knee, shoulder and hip joints may also be affected, but small joints of the hands and feet are spared. This condition differs from ankylosing spondylitis in that there is no annular ossification. Sacroiliac joint changes differ — patients with ochronosis have narrowing and extensive sclerosis, while those with ankylosing spondylitis have erosive changes followed by ankylosis. The diagnosis of ochronosis can be confirmed by detection of urinary homogentisic acid.

Features pointing to the diagnosis of ochronosis



A: Discolouration of the sclerae.



B: Urine sample before (left) and after (right) alkalinisation.



C: Spinal x-ray showing intervertebral disc calcification.

Author details

Aman Sharma, MD, Assistant Professor¹
 Shefali K Sharma, MD, Assistant Professor²
 Ajay Wanchu, DM, Associate Professor¹
 Manish Kumar, MD, Former Senior Resident¹
 Surjit Singh, MD, Professor¹
 Pradeep Bambery, MD, Professor¹

¹ Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India.

² All India Institute of Medical Sciences (AIIMS), New Delhi, India.

Correspondence: amansharma74@yahoo.com

(Received 21 Feb 2006, accepted 13 Apr 2006) □