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## Letter to the Editor

## Prostatic calcification in ochronosis

A 48-year-old male farmer presented to our OPD with low back ache for 10 years. He did not have any early morning stiffness and pain was increasing after doing work or bending forward. This resulted in progressive difficulty in carrying out his day to day activities. He also noticed gradual darkening of urine after exposure to sunlight. There was no family history of similar illness. Examination revealed brownish pigmentation of sclera; lumbar spine showed limitation of forward flexion (modified Schober's 3 cm). His hemogram and acute phase reactants were within normal limits. His urine turned black after keeping in sunlight for 1 h (Fig. 1A and B). X-ray dorsolumbar spine revealed decreased joint space with multiple osteophytes and intervertebral disc calcification. Ultrasound of pelvis revealed prostatic calcification (Fig. 1C).

Ochronosis is an autosomal recessive disorder of tyrosine metabolism (due to deficient activity of homogentisic acid dioxygenase) resulting in accumulation of homogentisic acid (HGA) which is deposited in connective tissue throughout the body.<sup>1,2</sup> It usually presents after the third decade with brownish or bluish discoloration of the sclera or auricular cartilage, and typically results in dark brown or black discoloration of urine on standing, with or without alkalization.<sup>1–3</sup> Calcification at unusual sites as prostate, so also in the kidney and aortic valve have been infrequently described.<sup>3–5</sup> It should be considered in the differential

diagnosis of a patient with mechanical low back ache, and intervertebral disc calcification.<sup>4,6</sup> Other differential diagnoses of disc calcification include degenerative lumbar spine disease, pseudogout, hemochromatosis and hypervitaminosis D. Peripheral arthropathy usually involves large joints like knee, hip and shoulder which may need joint replacement.<sup>2,5</sup> Definitive diagnosis entails demonstration of elevated levels of HGA in blood and urine. Gas chromatography–mass spectrometry can be used to demonstrate elevated HGA levels in urine; typically, tyrosine levels are normal. Therapy involves dietary restriction of tyrosine and phenylalanine, which reduces excretion of homogentisic acid and may prevent further progression of arthropathy; role of vitamin C is controversial.<sup>4</sup>

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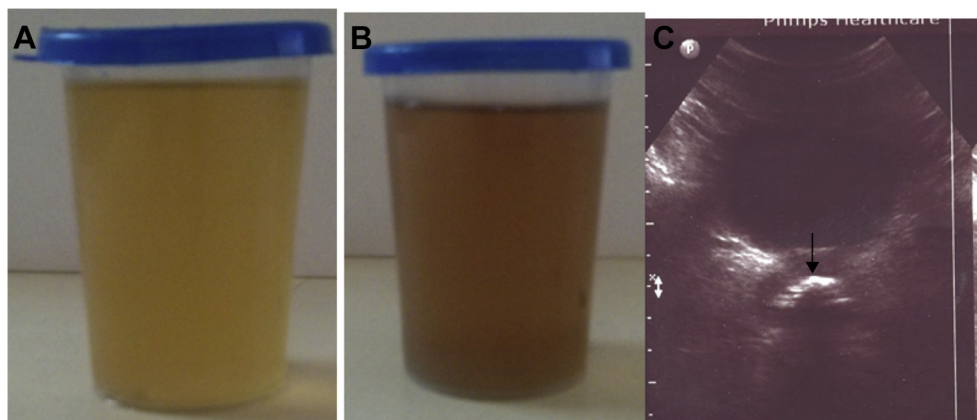


Fig. 1 – (A) Urine just after urination. (B) After 1 h exposure of sunlight. (C) Ultrasonography of pelvis revealed prostatic calcification.

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