LETTER TO EDITOR

CUTANEOUS MARKERS IN OCHRONOSIS

Sir,

A 40-year-old woman presented with low backache of five-year duration with pain in the knee, shoulder and ankle joints on both sides. On examination she was found to have thickened ear lobule with restricted mobility of the pinna [Figure 1]. There was black pigmentation in the palmar aspect of the right index finger [Figure 2]. She also had hyperpigmented plaques with adherent scales in the left palm which was most obvious in the little finger [Figure 3]. Plain radiograph of the lumbar spine showed intervertebral disc calcification [Figure 4]. Her urine sample collected in the outpatient turned black on standing for about 12 h. She was diagnosed to have ochronosis and was positive for urine HPLC (high profile liquid chromatography) test for homogentisic acid (HGC).

Alkaptonuria is a rare hereditary metabolic disorder, clinically manifested by spondyloarthropathy and soft tissue ochronosis. The biochemical defect is the absence of enzyme homogentisic acid oxidase which leads to accumulation of HGC in skin and the various connective tissues of the body. Our case report highlights unusual cutaneous signs of ochronosis. Ochronotic pigmentation is observed in the third and fourth decade in the skin, sclera, and ears. The chemical characteristics of this pigment resemble melanin and it is presumed to be a polymer derived from HGC. When the urine of affected persons is allowed to stand, the HGC is oxidized to a melanin-like product, which causes the urine to gradually turn black. This pigment has an affinity to cartilage and connective tissues which in turn destroys the auricular cartilage and produces degeneration of the tendons. Although the patients are asymptomatic, they develop signs of arthritis and tendon rupture in middle age. There are three stages in the pathogenesis of ochronosis. Stage 1 is mainly alkaptonuria presenting as increased excretion of HGC in urine. Stage 2 is ochronosis characterized by deposition of HGC in connective tissue and cartilage. Stage 3 is spondyloarthropathy involving the axial and appendicular skeleton. In our experience the commonest joint to be involved is the knee joint, next only to the spine. Occasionally, the shoulder and hip may also develop secondary osteoarthritis. The tendoachilles undergoes degenerative rupture which may be the only presenting symptom.

In the ear cartilage appears thickened with slate blue or grey discoloration leading to restricted mobility of the pinna. Occasionally, these patients will show pigmentation on the palmar and plantar surfaces which appear as a coal black-like "tattoo" mark, coined as palmoplantar pigmentation. These may be associated pitting and hyperpigmented plaques with adherent scales. More commonly patients also show subcutaneous nodules in the region of the popliteal fossa or achilles tendon. History of drug ingestion is mandatory in patients with palmoplantar pigmentation since minocycline-induced pigmentation is a well known entity masquerading as alkaptonuria. Rarely, an intramuscular injection of quinine can lead to bluish black pigmentation in the buttocks resulting in exogenous ochronosis. In conclusion one should keep in mind the possibility of ochronosis when a patient presents with low backache, joint pains (spondyloarthropathy) and cutaneous signs as described above.

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5. Chen KY, Hsueh PR, Liaw YS, Yang PC, Luh KT. A 10-year experience with bacteriology of Pleural empyema due to Group A beta-hemolytic streptococci (GABHS) accounted for only 0.7% of thoracic empyema cases over a 10-year period.

A notable feature of the present case was the extensive empyema. Streptococcus pyogenes (GABHS) has been singled out as the cause of small pneumonia with extensive empyema. Of the anaerobes, the Bacteroides species in particular, has been associated with extensive empyema.

The clinical presentation of streptococcal pneumonia is characterized by the abrupt onset of fever, chills, dyspnea and productive cough. Pleuritic chest pain occurs in 75% of patients. The presence of comorbid conditions like diabetes, as observed in the present case, increases the risk of pleural space infections. Mortality is generally low with penicillin therapy and adequate drainage of empyema. The case reported here illustrates that the importance of GABHS as a cause of pleural empyema among adults should be more widely appreciated. Greater caution and timely action need to be exercised in patients with compromised host defenses.

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LETTER TO EDITOR


GENTAMICIN RESISTANCE IN BIOFILM PRODUCING PSEUDOMONAS AERUGINOSA CAUSING CATHETER ASSOCIATED URINARY TRACT INFECTIONS

Sir,
Catheters introduce an artificial substratum into the body and cause persistent infections. These recurrent infections are mainly due to the accumulation of mixed biofilms on the artificial surface of the catheter or other implant.

A biofilm on an indwelling urinary catheter consists of adherent microorganisms, their extracellular products and host components