

Crowned Dens Syndrome-Pseudogout of the Neck

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Abstract

This is a case report of a patient who presented with neck pain and intermittent pyrexia as a manifestation of pseudogout of the neck.

Keywords

Rheumatology, crystal arthropathy, medical imaging, inflammatory arthropathy

Key teaching points

- Crowned Dens Syndrome should be considered in those patients presenting with neck pain and pyrexia
- This condition may present as a manifestation of calcium pyrophosphate deposition disease, otherwise known as pseudogout

An 80-year-old woman presented to the Emergency Department with a 2-day history of neck pain with associated intermittent pyrexia, following a fall in her bathroom. The pain was initially managed with over-the-counter analgesia but had since worsened, causing cervical spine stiffness. She reported no visual disturbance, jaw claudication or photophobia. She had no other complaints of arthralgia. Examination revealed mild tenderness on palpation of the cervical spine, and normal neurological examination of the upper and lower limbs.

Full blood count and C-reactive protein (CRP) levels were within normal parameters. Computed tomography of the cervical spine excluded a fracture however revealed crown-shaped deposits of calcium pyrophosphate associated with the odontoid process (also known as the dens or odontoid peg)-see Figure 1. This is consistent with a diagnosis of Crowned Dens syndrome.

Crowned Dens Syndrome is a rare disease entity defined by cervico-occipital pain, fever and neck stiffness, and in most cases raised inflammatory markers including CRP.¹ Radiologically, the diagnosis is made by the presence of hydroxyapatite or calcium pyrophosphate deposits at the cruciate ligament, around the odontoid process.² These deposits are often perceived as a crown lying on the superior aspect of the odontoid process. Important differentials to consider include meningitis, cervical spondylitis and giant cell arteritis. Crucially, NSAIDs are the gold standard treatment of this condition. Other treatment

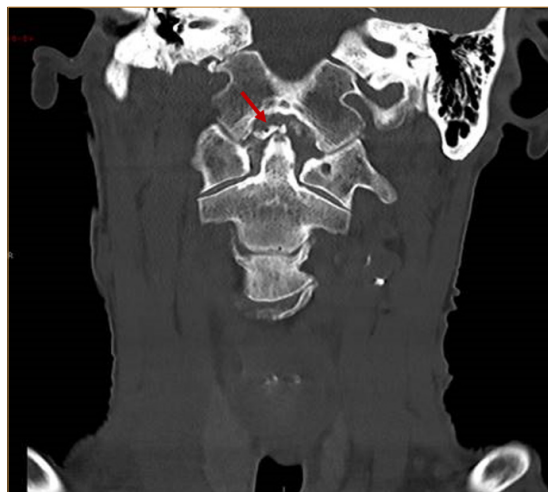


Figure 1. Computed tomography of the cervical spine: coronal view with red arrow showing soft tissue calcification surrounding the odontoid process characteristic of Crowned Dens Syndrome.

options include low-dose oral colchicine and in severe cases, a course of oral corticosteroids.³ This patient was discharged with a short course of naproxen, with symptomatic improvement.

Declaration of conflict of interest

None declared.

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