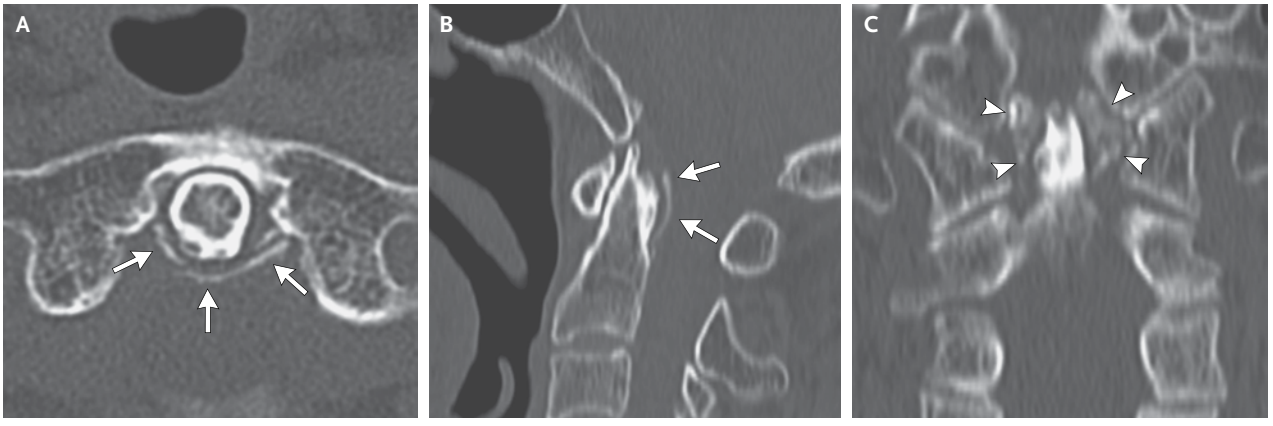
IMAGES IN CLINICAL MEDICINE

Crowned Dens Syndrome



Masami Matsumura, M.D.
Satoshi Hara, M.D.

Kanazawa University
Kanazawa, Japan

An 88-year-old woman presented with a 2-month history of recurrent episodes of acute pain in her neck and knees that were associated with fevers of 38 to 39.3°C. She reported no visual symptoms, jaw claudication, morning stiffness, or pain in the upper arms or shoulders. Radiography revealed chondrocalcinosis in the knees and stippled calcifications in the pubic symphysis. Computed tomography of the neck showed curvilinear calcifications of the transverse ligament of the atlas (Panel A, arrows), a linear calcification (Panel B, arrows), and crown-shaped calcium deposits surrounding the odontoid process (Panel C, arrowheads). Crowned dens syndrome is characterized by recurrent neck pain related to radiodense deposits of hydroxyapatite or calcium pyrophosphate dihydrate in ligaments around the odontoid process, which create the appearance of a crown or halo surrounding the odontoid process on radiographic imaging. Evidence of inflammation (e.g., fever or elevated levels of C-reactive protein) is typical. A short course of prednisolone (15 mg per day), followed by administration of nonsteroidal anti-inflammatory medication, completely alleviated her symptoms. Long-term treatment with antiinflammatory agents is usually unnecessary in patients with this condition.

DOI: 10.1056/NEJMicm1100764