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MIMICS OF THE CROWNED DENS SYNDROME: REPORT OF TWO CASES

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BACKGROUND

The crowned dens syndrome (CDS) is a rare manifestation of the calcium pyrophosphate deposition (CPPD) disease related to calcification around the odontoid process in atlantoaxial joint and usually presented as neck pain. We report two cases of mimics of the CDS with distinct presentations.

CASE REPORTS

The first case is an 83-year-old woman with a 2-week history of pain and increasing stiffness involving the neck, shoulder and interscapulovertebral area, accompanied by elevated acute phase reactants. She was mistakenly diagnosed with polymyalgia rheumatica (PMR). CT scan of the cervical spine revealed calcifications in the atlantoaxial joint, surrounding the odontoid process. There was complete resolution of symptoms after treatment with colchicine. The second case is a 70-year-old woman with no previous cervical pain presenting to the emergency department with direct trauma of the neck. CT scan of cervical revealed fractures of the anterior C1 arch and odontoid process, but numerous periarticular calcifications surrounding the odontoid process was noted. Complementary radiographic studies of knees and wrists evidenced signs of chondrocalcinosis. After adequate analgesic treatment (opioids, muscle relaxants and non-anti-inflammatory analgesics), there was significant pain relief. Therefore, fracture was the cause of acute pain and chondrocalcinosis was probably an asymptomatic radiological finding in this patient.

CONCLUSION

The CDS must be part of the differential diagnosis of neck pain, especially in elderly individuals. However, chondrocalcinosis in the craniovertebral junction can be asymptomatic and observed as radiological finding in patients with neck pain due to other causes. These two reported cases support the notion that careful discrimination of the cause of neck pain is essential for improving outcomes.