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Inflammatory Neck Pain and Headaches Pousses as a Manifestation of Crowned Dens Syndrome

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A 42 years-old man referred to Rheumatology Unit, University of Padua, due to suspicion of spondyloarthritis. The patient had a 3-years history of inflammatory neck pain and headaches pousses of 4-5 days. Also, he referred low back pain during the night in the last three months as well. The physical examination revealed cervical motion moderately limited due to the pain and swelling of the right ankle. Joint aspiration was performed at right ankle and, surprisingly, showed an inflammatory synovial fluid with presence of calcium pyrophosphate dehydrate crystals. Furthermore, computed tomography (CT) revealed calcification of the cruciate ligament of the atlas (Figures 1 and 2). Therefore he was diagnosed to have chondrocalcinosis and crowned dens syndrome (CDS) as its manifestation. Earlier, cervical and lumbar spine X-rays and magnetic resonance imaging (MRI) were normal. Therapy with colchicines (1 mg/die) and non-steroidal anti-inflammatory drugs was started with fast resolution of the symptoms. Actually, the patient is recovering pretty well and, did not have had any relapse by continuing therapy with colchicines. The prevalence of radiologic CC in our population residing in the Veneto Region of Italy is 10.0% [1]. Neck CT is now considered to be the standard for making CDS diagnosis [2,3]. X-rays limited CDS diagnosis due to the superposition of the osseous structure, while MRI is not useful for the detection of small deposits [4]. So, the neck CT examinations are crucial for making CDS diagnosis.

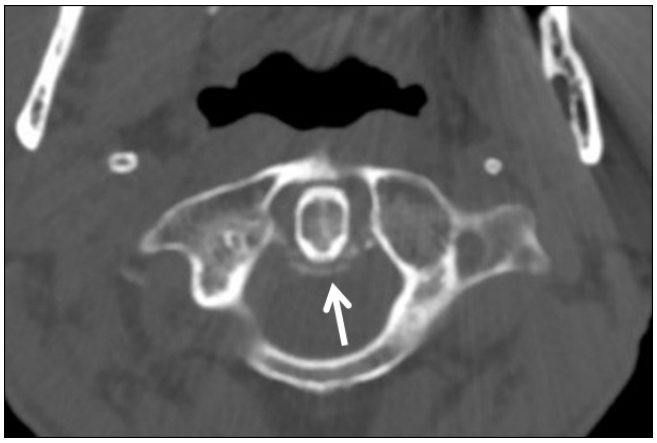

Figure 1: The axial cervical computed tomography image showed semicircular calcification at the posterior side of the dens (arrow).

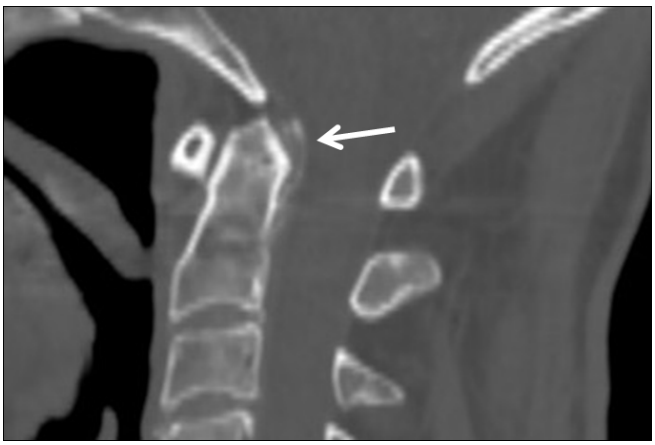

Figure 2: The sagittal cervical computed tomography image demonstrates linear calcification at the posterior part of the dens (arrow).

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