Letters to the Editor


References


Tophus in the odontoid process of C2

Sirs,

A cocktail party consultation by a healthy looking colleague, MD, disclosed that a malignant-suspect lytic lesion had been found in the dens of C2. He had had recurrent but self-resolving arthritis attacks of his 1st MTP joints. Twenty years later he developed severe neck pain and a lytic change in the dens of the axis, which was considered to be rheumatoid or metastatic. MRI and CT disclosed a punch-lesion with overhanging edges compatible with a tophus. Due to a risk of pathological atlantoaxial fracture, he was advised against contact sports, to purchase a neck support to his car and to use a soft cervical collar when necessary.

Gout is characterized by hyperuricemia leading at the age of 30-40 years to recurrent acute arthritis attacks caused by intra-articular precipitation of urate to insoluble needle-like strongly birefringent crystals. They evoke a vigorous host response dominated by accumulation, activation and rupture from within of neutrophils. Painful involvement of the 1st MTP joint, podagra, is very typical. In untreated patients arthritics becomes chronic after 10-20 years and tophi develop in soft tissues and as punch-like defects in bone. Gout is common in highly educated professionals. We describe a colleague, who in a cocktail party told about an erosion in the dens of his second cervical vertebra, which had been suspected to represent a malignant change. This 69-year-old colleague had a history of mild hypertension and hyperlipidaemia. Diuretics were not used. He had a long history of recurrent acute episodes of extremely painful, but self-limited attacks of his 1st MTP joints. Serum uric acid concentrations had been 0.45–0.55 mmol/l (ref. 0.16-0.45 mmol/l in men). Attacks had been treated with indomethacin. Allopurinol caused skin reactions so he took probenecid during symptomatic periods “on demand” with good results. At the time for the visit he had neck pain and torticollis to left without radicular symptoms or paresthesiae. X-ray, CT and MRI findings were typical to a tophus (Fig. 1) (1, 2). A malignant metastatic change and rheumatoid arthritis were excluded clinically and by the test of time. He now uses probenecid regularly. The odontoid lesions have not changed and the patient is in good general health over five years afterwards.

The low temperature of the 1st MTP joint favours precipitation of soluble urate from supersaturated solutions (3). Nidus formation, perhaps as a result of microtrauma and osteoarthrosis, is important for the initiation of the attack. Indeed, the 1st MTP joint is one of the predilection sites for osteoarthritis, is important for the initiation of the attack. Indeed, the 1st MTP joint is one of the predilection sites for osteoarthriti-"s, the “poor man’s gout”. In Finland real gout occurs in the elbow of fishermen (“fisherman’s gout”), who during extremely cold winter times strain their elbow joint when drilling holes to ice for bait fishing. A typical patient warms himself, not with Italian wines, but with strong spirits of good domestic brand, Baltic herring, small whitefish and other similar rich sources of urate are used for meals (4). We believe, although needle aspiration and polarized light microscopic examinations had not been done, that there is no other disease with this clinical course able to explain symptoms of our patient. We found only three previous reports of tophaceous involvement of the dens (5-8). Tophi in the

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**Fig. 1.** CT (a) disclosed a punched-out lesion (long thin arrow) of the dens of C2 with an overhanging edge of the cortex at the base of it, surrounded by a thin sclerotic wall. There was osteoarthrosis (small thick arrow) in the left atlantoaxial joint. MRI (b) disclosed a pendulous soft-tissue mass (arrows) with an associated sharply delineated erosion of the dens with tophus-like characteristics.