

## SHORT COMMUNICATION

### ‘Mice’ in the joint

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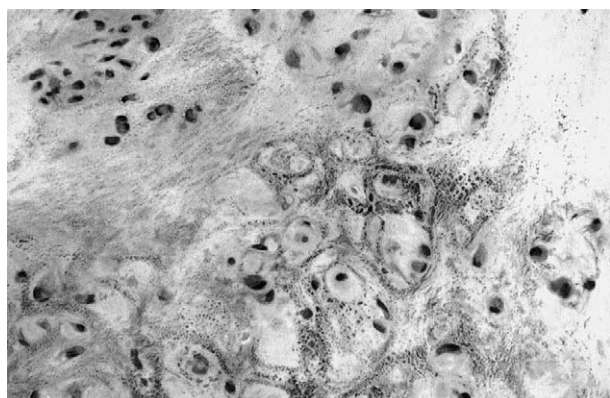
#### INTRODUCTION

Synovial chondromatosis of the temporomandibular joint (TMJ) is rare, and is characterised by the presence of loose bodies (joint mice). It can be confused clinically with myofascial pain dysfunction syndrome, and histologically with chondrosarcoma. Diagnosis involves clinical, radiographic, and histological examination. Arthroscopy is a useful, minimally-invasive adjunctive diagnostic investigation.

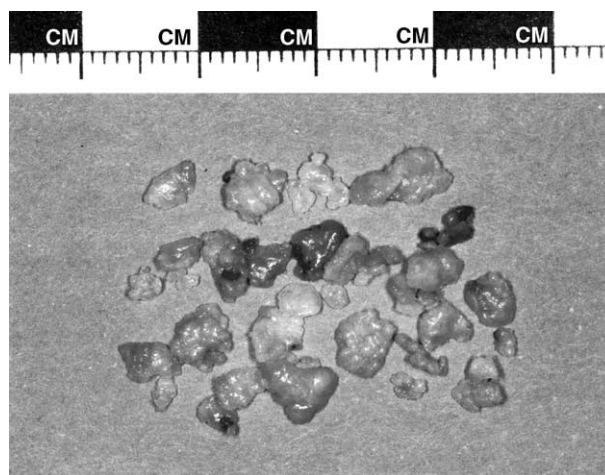
#### CASE REPORT

A 56-year-old man presented with pain, swelling, and progressive trismus related to the right TMJ. He had previously been diagnosed as having myofascial pain dysfunction syndrome.

Plain radiographs showed an enlarged right condyle but sagittal tomograms showed only sclerosis and irregularity of the condyle. A diagnostic arthroscopy provided tissue for histology, which suggested synovial chondromatosis (Fig. 1). The ‘mice’ comprised well-differentiated hyaline



**Fig. 1** Photomicrograph of loose bodies (haematoxylin and eosin stain, original magnification  $\times 66$ ).



**Fig. 2** Photograph of the loose bodies (scale in mm).

cartilage with occasional binucleate forms but with no other atypia. Each was well organised and there was no separate cellular component or mineralisation.

An open arthrotomy was carried out. The upper joint space contained around 110 loose bodies ranging in size from 1 to 6.5 mm (Fig. 2), there were none in the lower joint space. The symptoms resolved and he was symptom free 18 months later.

#### DISCUSSION

The diagnosis of synovial chondromatosis is based on clinical, radiographic, arthroscopic, and histological findings. It is important to consider tumours, condylar hyperplasia, osteochondritis, avascular necrosis, arthritis, and fracture in the differential diagnosis.

Conventional radiography is of limited value as it is dependent on the extent of calcification of the loose bodies and it fails to show them in 30–40% of cases.

Computed tomography (CT) is helpful in identifying foreign bodies or an increase in joint space, particularly

when conventional radiography failed to do so. Magnetic resonance imaging (MRI) is most effective in showing the soft tissue mass. Arthroscopy can be valuable by providing tissue for microscopy.

Although not a problem in a typical case, there is overlap between the histological features of chondromatosis and chondrosarcoma.<sup>1</sup>

Operation is the treatment of choice, involving arthrotomy or arthroscopy with removal of the loose bodies and the affected synovium.<sup>2</sup> There is some debate in published work about the relative benefit of complete or partial synovectomy.<sup>3</sup> Total synovectomy is difficult and is impossible with the mandibular condyle in situ.<sup>4</sup>

Arthroscopy has several advantages over arthrotomy, such as a reduction in operative morbidity, length of stay in hospital, complications, and scarring, but limits the possibility of removing large loose bodies and may have an increased recurrence rate.

Recently it has been shown that the proliferation rate lies between that of benign and malignant cartilaginous neoplasms and that almost half the lesions show chromosomal abnormalities.<sup>5</sup> In conjunction with the finding that some lesions are clonal,<sup>6</sup> that some lesions recur, and that malignant transformation is recorded in 5% of cases,<sup>7</sup> the current view is that at least some cases are neoplastic which clearly has implications for follow up.

#### ACKNOWLEDGEMENT

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