

Arthroscopic management of a knee haemangioma

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Learning Points

- Spontaneous haemarthrosis in the knee can be caused by haemangiomas
- Successful management of a knee intra-articular haemangioma may be achieved using an arthroscopic shaver and a radio-frequency ablation probe

Background & Description

A 29 year old patient presented with spontaneous and non-traumatic onset of pain and swelling in her knee. Additional symptoms included giving way but absence of clicking, locking or catching. Past medical history included multiples spontaneous haemarthrosis of the same knee in childhood. These were caused by intra-articular synovial haemangiomas and were managed non-operatively.

An up to date MRI scan confirmed that the current haemarthrosis was caused by multiple intra-articular synovial haemangiomas. The full blood count and clotting profile were normal. Past medical history did not reveal alternative causes of spontaneous bleeding such as haemophilia.

The MRI appearances of the intra-articular synovial haemangiomas are demonstrated in figure 1. This is juxtaposed with the intra-operative clinical photographs in figure 2 before and after debridement and cautery. Of note is the lobulated appearance, margins and relationship to adjacent tissues in the medial gutter of the left knee. This photographic information is useful for successful preoperative planning.

These rare lesions first described by Bouchut in 1856 are classified as either confined within the joint [intra-articular] or arterio-venous malformations communicating between the joint and neighbouring musculature and skin [haemangiohamartomas] [1]. Management is challenging. Reported management ranges from conservative through to embolization [2], laser ablation [3] and open or arthroscopic excision. Recurrence and joint degeneration secondary to haemorrhagic synovitis are concerns.

After discussion with the patient, we successfully excised the knee intra-articular haemangiomas using an arthroscopic shaver and a radio-frequency ablation probe. Intra-operatively bleeding during debridement was minimal. There was no significant reactive synovitis and articular surfaces were well preserved. At two months follow up the patient had made a good recovery, remained symptom free and was discharged.

Figures

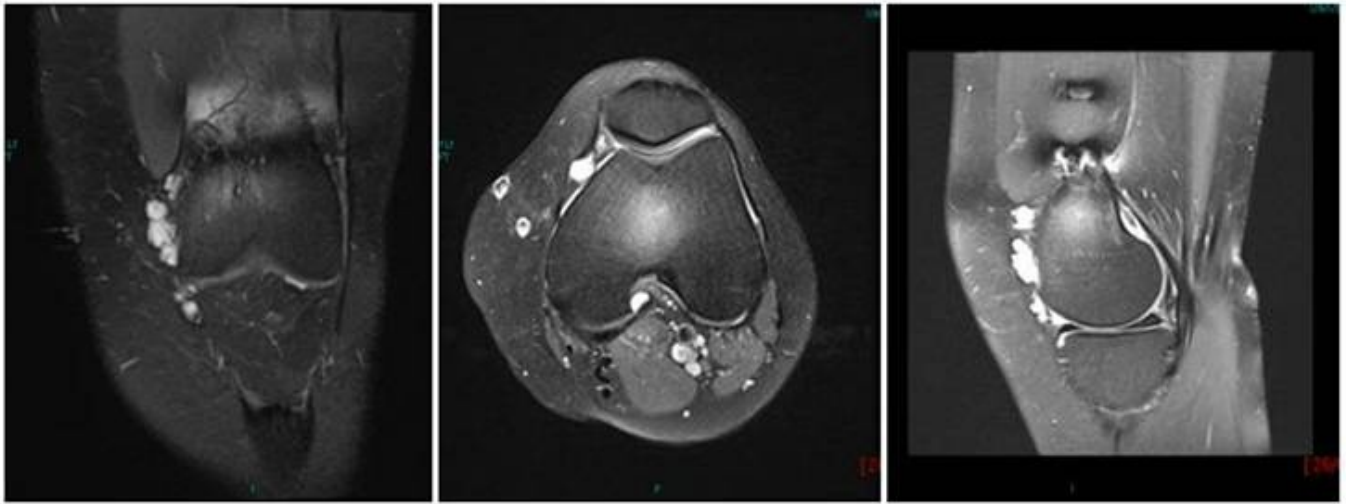


Figure 1: Pre-operative coronal, axial and sagittal knee MRI scans with Gadolinium contrast demonstrating several high signal intensity nodular densities in the medial aspect of the joint consistent with the appearance of a haemangioma

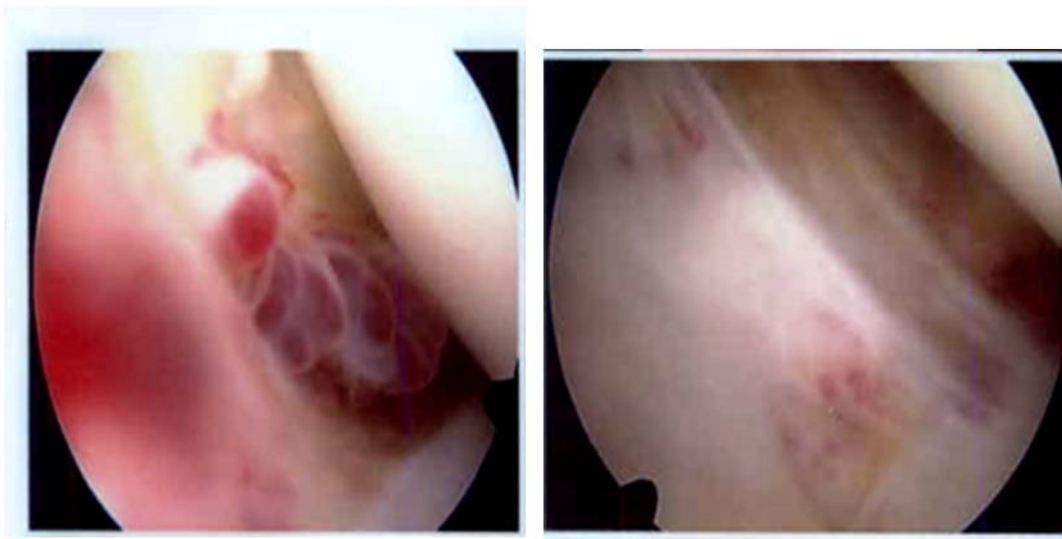


Figure 2: Intra-operative photographs taken during knee arthroscopy showing synovial type intra-articular haemangioma localised to the medial gutter before and after debridement with arthroscopic shaver and radio-frequency ablation probe.

References

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