Letters

GIANT CELL TUMOUR OF THE TENDON SHEATH – AN UNUSUAL CAUSE FOR LOCKING OF THE KNEE JOINT.

Editor,

Locking of the knee is a common presentation at orthopaedic outpatient departments. These patients normally require magnetic resonance imaging (MRI) where there is a clinical suspicion of a soft tissue lesion. The most common lesions are meniscal tears and typically present with associated pain. We present an unusual case of a giant cell tumour arising from the tendon sheath causing painless locking of the knee joint.

Case report: A 39-year-old male presented with a twelve-month history of painless locking in his left knee. He worked as a roofer and found his symptoms worse when climbing ladders. He was referred by his general practitioner who suspected a meniscal tear. There was no history of any trauma to the knee. Clinical examination revealed no swelling, effusion or joint line tenderness around the knee, and a full range of movement. A mass arising from the medial aspect of his patella, which was mobile within the knee joint, was palpable. The lesion was firm but not bony in nature, and was not visible on X-ray. The mass was presumed to be a soft tissue lesion and, because of the hazards associated with his occupation, the patient proceeded directly to arthroscopy rather than MRI. At arthroscopy a large intra-articular lesion was identified originating posterior to the medial patella. The size of the lesion prohibited removal during arthroscopy, and was therefore excised in its entirety via a medial parapatellar incision. Histology showed the specimen to be a giant cell tumour of the tendon sheath measuring 40 x 35 x 15mm (Fig 1). Postoperative recovery was uneventful and at two-month review the patients symptoms had resolved.

Discussion: Giant cell tumours of the tendon sheath (GCTTS) are benign soft tissue masses, typically found on the flexor surface of the hand and wrist. They are more common in males with an average age of presentation of 30-50 years. These tumours are classified in two types; the common localized type and the rare diffuse type. The more localised form accounts for 88% of cases effecting the hands and feet arising from the synovium of the tendon sheath. It is unusual for giant cell tumours to involve larger joints and to be intra-articular. In large joints diagnosis is difficult because the signs and symptoms can be non-specific. The rare diffuse form, occurring in joints such as the knee and ankle, is considered to be an extra-articular extension of a primary intra-articular pigmented villonodular synovitis (PVNS). PVNS and GCTTS share similar histological characteristics and are regarded as different manifestations of synovial proliferations.

As in this case, plain X-rays are often of limited benefit. MRI is an important diagnostic modality. T1 and T2 weighted images show a low intensity homogenous signal for a GCTTS due to the presence of dense fibrous tissue. Ideally GCTTS should be completely excised, but may have to be incomplete due to the nature of spread into the surrounding synovium. Zhang et al. reviewed 12 cases of intra-articular GCTTS within the knee, and reported that nine cases were misdiagnosed with meniscal injuries or chronic synovitis. Only three cases had the diagnosis confirmed by MRI prior to surgery. They found no incidence of recurrence in any of the cases. Further studies have looked at recurrence and quote figures around 10-20% rising to 44% if excision was inadequate.

Conclusion: This case highlights that GCTTS, although rare, can be an unusual cause for locking of the knee joint. Its presentation may mimic a meniscal tear, but a history of no previous trauma to the knee and painless locking are important discriminating symptoms.

Conflicts of Interest: None declared.

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CLIMATE CHANGE AND ITS IMPACT ON HEALTH

Editor,

On the 29th January 2008, a landmark conference entitled ‘Climate Change and its Impact on Health’ took place at the Royal College of Physicians in London. Although the
There were some very clear messages. None of the speakers had any doubt that climate change – a rise in average temperature and a rise in atmospheric carbon dioxide levels – first was real, second was due to the activities of humans and third was likely to have serious consequences for human health because of an increase in infectious diseases, heat-related diseases and malnutrition. There was also no doubt that the only solution in town was to reduce carbon emissions and that this needed to be done by concerted government and inter-governmental action. There was also agreement that currently-available technologies were able to do this. Those cited were fuel-efficient vehicles, reduced vehicle use, more nuclear energy, substitution of coal by gas for electricity generation, carbon capture and storage and more use of wind, sun, hydrogen and biomass to generate power. Used together these could stop any rise in carbon emission. The cost arguments were set out in the Stern Report published in 2006\(^1\). The cost of failing to deal with climate change would be at least 20% of global gross domestic product (GDP) whereas it would cost only 1% of GDP to act now on global warming.

There was also general agreement that the medical profession could act both personally and politically. Personal contributions included using energy-saving light bulbs, reducing travel by car, using public transport and cycling or walking to work. Politically the medical profession should be at the forefront of lobbying for effective government action on climate change and to this end the Climate and Health Council has been established (www.climateandhealth.org). The obvious analogy here is the leading role of the profession against cigarette smoking.

The closing address of the conference was given by Dr James Hanson, Director of the NASA Goddard Institute of Space Studies who suggested a moratorium on further coal-fired power stations and urged individuals to influence those who are elected to Governments. This address was delivered by videolink so Dr Hanson did not have to increase his carbon footprint by flying to London. (The possibility of reducing the NHS carbon footprint by practising more medicine this way was barely mentioned at the conference.)

Although this conference may have scared many in attendance about the future of our planet it also conveyed a message of optimism. This optimism though, was tempered by the proviso that corrective action needs to be taken now rather than later, and that to do that we all need to emerge from our states of denial.

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IATROGENIC SPLENIC INJURY IN PERCUTANEOUS PROCEDURES

The potential for splenic injury during left sided thoracentesis or percutaneous renal biopsy is well known, its occurrence has been rarely reported\(^1\). In a series of 244 incidental splenectomies, only one was secondary to left thoracentesis\(^2\). Each year about 600 new cases of extrinsic allergic alveolitis are diagnosed in the UK\(^3\). Lung biopsy is an important diagnostic tool for diffuse lung disease. Others include bronchoalveolar lavage and high resolution computed tomography\(^4\). We present a case of delayed splenic rupture following percutaneous lung biopsy, which required urgent laparotomy.

**Case Report:** A 48-year-old gentleman presented with left upper quadrant pain and shortness of breath for eight hours prior to admission. There was no history of trauma, haematological or storage diseases. The patient underwent a left lung biopsy two months earlier which had led to the diagnosis of extrinsic allergic alveolitis.

On examination, he was comfortable and haemodynamically stable. Respiratory and cardiovascular examinations were unremarkable, abdomen was soft and non-tender. Initial haematological investigations, cardiac enzymes and electrocardiogram were normal. A provisional diagnosis of inferior wall myocardial infarction was made.

He became progressively hypotensive and developed abdominal distension with left upper quadrant tenderness. Two scars were noted, one over 6\(^{th}\) and the other over 8\(^{th}\) intercostal spaces.

Urgent computed tomography of abdomen and pelvis revealed complex fluid collection around the spleen and free intraperitoneal fluid (fig 1). At emergency laparotomy, 2.5 litres of intraperitoneal blood was removed. A large clot was identified under left dome of diaphragm. A small-healed wound over the lateral surface of the spleen was identified. No