We describe a patient with multiple sclerosis (MS), who developed recurrent dislocations after total knee arthroplasty. She had both knees replaced using similar mobile-bearing knee prostheses, but the outcome was worse in the leg which was more severely affected with MS.

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Adverse outcomes of mobile-bearing knee replacements in patients with disability from neurological disorders have not been previously described to our knowledge. We report the outcome of mobile-bearing knee replacement in a patient suffering from multiple sclerosis (MS).

Case report

A 59-year-old woman with a ten-year history of multiple sclerosis (MS) presented with painful osteoarthritis of the lateral compartment of the right knee. The MS affected her right leg more than her left, although she denied having significant muscle spasms. She had previously had a left total knee replacement using a mobile-bearing prosthesis (PFC; DePuy International Ltd, Leeds, UK) 18 months earlier with an excellent outcome. She therefore underwent a right total knee replacement using the same type of prosthesis. At operation, ligament balance was considered to be very good using a 10 mm polyethylene spacer. The patient followed a standard rehabilitation programme. She achieved 90° of flexion quickly but experienced painful spasms in the hamstrings and required a knee brace to help with walking.

Her initial progress after discharge was good. She, however, continued to have spasms in her right leg, particularly at night. Before discharge she started taking Tizanidine, an antispasmodic drug. She presented as an emergency 4.5 weeks after operation with a posterior dislocation of the right knee after a severe episode of nocturnal spasm in the hamstring muscles. The dislocated polyethylene insert was seen on the plain radiograph (Fig. 1). It could
not be reduced by closed manipulation and required open reduct-
ion. At operation the dislocated component was seen to be articu-
lating with the medial femoral condyle, but had dislocated poste-
rionally on the lateral side (Fig. 2). Replacement with a thicker poly-
ethylene insert was necessary to ensure that there was ade-
quate stability in flexion and that the component could not be dis-
located. This resulted in some loss of extension of the knee.
Despite the extra thickness of the polyethylene the patient had a
second dislocation after another nocturnal hamstring spasm two
weeks later and required another open reduction followed by
immobilisation in a cylinder cast for six weeks. In view of the con-
tinuous hamstring spasms which could not be adequately control-
led with antispasmodic medication and the high likelihood of
further dislocation, a stabilised revision prosthesis was implanted
2.5 months after the original operation. The hamstring spasms
have improved with appropriate medication, but have not been
abolished. The knee has, however, remained stable with good func-
tion since the revision procedure.

Discussion

Dislocation after knee replacement using a mobile-bearing pros-
thesis has been reported by a number of authors. The incidence
of dislocation when a prosthesis with fixed bearing has been used
varies from 0.15% to 0.5%. Various authors have described the
importance of surgical technique in preventing dislocation when
using a mobile-bearing prosthesis. 2,4

We have found no reported cases of dislocation of a mobile
bearing in a patient with neurological disability. It is recognised
that surgery on the limbs may exacerbate symptoms in patients
suffering from neurological diseases such as MS. 5 This patient had
an excellent outcome after knee replacement using a mobile-bear-
ing prosthesis in the less affected limb. An identical procedure on
the more affected side led to a deterioration in the symptoms
including severe muscle spasms with consequent dislocation.

We would urge great caution in the use of mobile-bearing knee
replacements in patients with neurological disorders such as MS
since surgery may exacerbate the condition and render the pros thesis
unstable. The use of a fixed-bearing posterior stabilised pros thesis in conjunction with optimal control of muscle spasm is
recommended in such cases.

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HISTOPLASMOSIS AS THE CAUSE OF A PATHOLOGICAL FRACTURE

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We report the case of an 82-year-old man with a
pathological fracture of the hip caused by infection with
Histoplasma capsulatum var capsulatum. He was treated by a
hemiarthroplasty and with oral itraconazole.

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Fungal spores of Histoplasma capsulatum infect man when
inhaled in dust from animal droppings. Histoplasmosis is endemic
in parts of the Americas, and sporadic cases are seen in tropical
and temperate countries. 1 Classical histoplasmosis is a self-limiting
febrile illness with pulmonary symptoms. African histoplasmo-
sis caused by Histoplasma duboisii affects the skin, lymph nodes,
and bone. 1 In HIV-infected patients, latent histoplasmosis may be
reactive, causing fungaemia and visceral disease. We now report a
case of histoplasmosis which resulted in a pathological fracture.

Case report

An 82-year-old Asian man presented with a four-month history of
pain in the right hip, anorexia and loss of weight. He had lived in
India until 1947, in Mombasa, Kenya until 1988, and subsequently
in the UK. He had visited Mombasa in 1994. He was investigated
but no diagnosis was made. In June 2000 he attended with further
severe pain in the hip. There was no history of trauma. Radiographs
revealed a subcapital fracture of the right femoral neck sec-
todary to a lytic lesion (Fig. 1). All movements of the right hip
were limited. The chest radiograph was normal. He underwent a
Thompson hemiarthroplasty. At operation the femoral head was
macroscopically abnormal and was sent for histopathological