Formation and Rupture of a Large False Femoral Aneurysm: An Unusual Golf Handicap

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Key Words: Femoral artery; Pseudoaneurysm; Rupture; Golf.

Introduction

Spontaneous femoral artery pseudoaneurysms are extremely rare. We report what is apparently the second documented case in the literature (Medline Access as of May 2003, search method on request) precipitated by acute hip torsion whilst playing golf. The case report aims to reinforce the fact that a femoral artery pseudoaneurysm can arise spontaneously following this type of repetitive physical activity and highlights the importance of prompt assessment and treatment of this condition.

Case Report

A fit 67-year-old gentleman who had noticed a painless mass in his right groin for 3 months developed acute pain and gross swelling of the upper thigh whilst playing his approach shot to the first hole during a round of golf. There was no convincing history of preceding trauma to the thigh. On examination he was haemodynamically stable with a large pulsatile mass in his right upper thigh and gross thigh swelling. His foot was cool with delayed capillary refill but neurologically intact.

A CT Scan of his aorta and femoral artery (Figs. 1 and 2) showed an 8.0 x 8.3 cm² pseudoaneurysm extending from the inferior aspect of the common femoral artery at the bifurcation of the right superficial femoral and profunda femoris arteries. There was extensive haematoma surrounding the pseudoaneurysm tracking between muscle planes of the right quadriceps muscle (Fig. 1).

Emergency surgical repair was performed under general anaesthetic and arterial control gained proximally by slinging the common femoral artery (CFA) just below the inguinal ligament and distally at the supragniculate popliteal artery. Profunda back bleeding was controlled with a Fogarty catheter.

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Operative findings confirmed a large ruptured common femoral false aneurysm extending to mid-thigh. The small defect in the anterior aspect of the CFA was repaired with a long saphenous vein patch. Microbiological culture of the aneurysm was sterile. He made an uncomplicated post-operative recovery.

**Discussion**

Spontaneous femoral pseudoaneurysms are very rare but femoral pseudoaneurysms are the most common type of pseudoaneurysm and account for more than three quarters of all the clinically important pseudoaneurysms. They frequently occur secondary to intravenous drug abuse, percutaneous femoral artery catheterisation for cardiac-related procedures or peripheral angiography, penetrating or blunt (rare) trauma, infection and at anastomotic suture lines. Diagnosis of a femoral artery pseudoaneurysm is most readily confirmed by duplex Doppler ultrasonography. We used CT angiography to allow adequate assessment of proximal arterial anatomy.

The aetiology of this false aneurysm was unclear at the time of surgery and the defect was patched with saphenous vein, as a mycotic false aneurysm had not been excluded. The cause of the aneurysm was presumably related to atherosclerotic degeneration of the CFA and potentially repetitive torsion during the patient’s golf swing, which ultimately led to rupture. We do, however, accept that it is impossible to prove categorically that golf was the predominant aetiologic factor. Interestingly, in a previous case report, it was postulated that the ‘forceful, abrupt torsion of the trunk and hips produced by the patient straddling with his feet fixed while swinging a golf club resulted in a tear in a branch of the deep femoral artery’.

This case represents a rare complication of playing golf. A femoral artery pseudoaneurysm should be considered in the differential diagnosis of groin swelling, following repetitive trunk and hip twisting.

**References**


Accepted 20 November 2003