Reinforced Abductor Plasty During Hip Joint Revision Surgery 15 Months After Traumatic Luxation.

Artelon
Optimal Tissue Reinforcement

CASE STUDY

Surgery performed on November 23, 2009 by Christian Anderberg, Orthopaedic Consultant at the Unit for Rheumatic Surgery, Spenshult Hospital, Oskarström, Sweden

Introduction

Traumatized soft tissues that are neglected or undiagnosed become more difficult to repair with time. Degeneration makes them increasingly fragile. Also adjacent tissues can become severely affected by inactivity or excessive loading to compensate for the pathology. The benefit offered from a reinforcing agent has long been acknowledged in e.g. rotator cuff surgery. Hip joint prosthesis dislocation may seriously injure the stabilizing soft tissues and muscles. It is essential that these elderly patients are treated swiftly. If surgical intervention is required but delayed the prognosis of soft tissue repair may greatly improve by the aid of Artelon Tissue Reinforcement. The present case describes a fifteen month old hip prosthesis luxation that severely traumatized the abductors.

Case Presentation

The patient is a male 70 year old with bilateral THR. His right hip was reconstructed with a hybrid THR, i.e. an uncemented pressfit cup and cemented stem in Oct 2007. The left hip was reconstructed the same way in Feb 2008. Both surgeries went according to plan. The second THR was followed by prolonged immobilization due to muscle weakness.

While deep squatting to lift a fridge the patient luxated his right hip joint in Aug 2008 (10 months post-op). A couple of more dislocations followed with a few months interval.

Physical Examination

Physical examination in June 2009 revealed: no limp, equal leg length, no pain, good ROM with flexion 135°, inw. rot. 25°, outw. rot. 35° and abd. 45°. A vacant space over the trochanter was palpated and considerable weakness in abduction was observed.

Reoperation was postponed due to cardiological problem until Nov 2009.

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Surgical Procedure

The joint was accessed by a lateral proximal-distal incision. A defect in the abductor muscles on and proximal to the great trochanter was observed. The reattachment sutures had torn the soft tissue. Advanced fatty degeneration of the abductors (m. gluteus medius and minimus, and tensor m. of fascia lata) was visually confirmed. After the hip joint revision that involved stem, ball and socket replacement the abductors were reattached by osteosutures to the femur. Further a gluteal strip, a dorsal 6 x 15 cm triangular in shape, from the muscle was raised and attached to the remaining anterior part of the abductor muscles. As illustrated in figure 2 a 6 cm x 9 cm Artelon Tissue Reinforcement, where the corners were rounded off, was sutured to the muscle tissue to provide an overlaying and supporting layer to stabilize the muscle fascia.

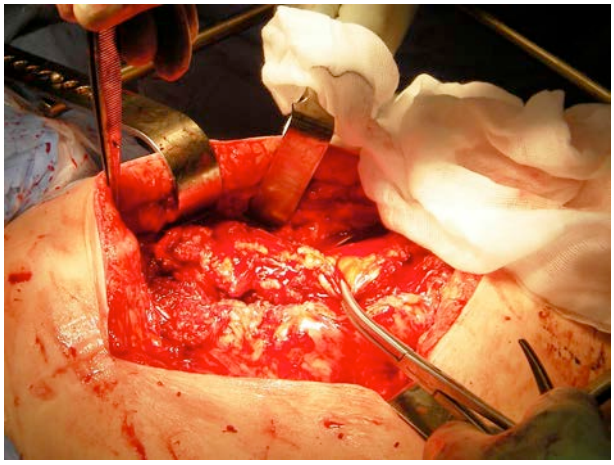

Figure 2. *Photography of debrided and mobilized abductor muscles prior to HRS.*

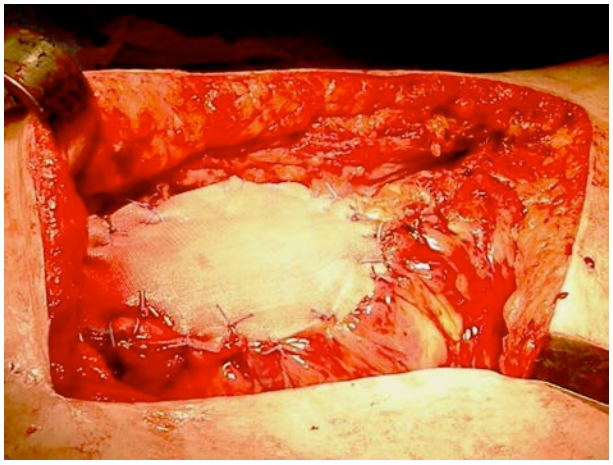

Figure 2. *Photography of reinforced hip joint abductor plasty.*