

Case Study 2

Mark is a 48 yo who presented with 2 years of intermittent LBP, groin pain and lateral hip pain. He was initially diagnosed with a likely herniated lumbar disc causing his referral pattern of pain into his groin and thigh.

Initial treatment was to take NSAID's, pain medication and have physiotherapy for his lumbar disc complaint. This involved a series of visits for lumbar spine mobilisation, massage and a home exercise program of core stability exercises. After 2 months of treatment there was some reduction in his pain scores for LBP but no change to his groin or lateral thigh pain.

Pelvic and lumbar spine x-rays were ordered revealing no significant hip joint pathology but reduced lumbar lordosis and a lack of gluteal musculature (Figure 1 and 2).



Figure 1 - Pelvic x-ray; Figure 2 lateral lumbar spine x-ray showing reduced lumbar lordosis

Using Rehabilitative Ultrasound Imaging, Mark was found to have poor core stability, particularly in the lower lumbar multifidus (Figure 3).



Figure 3 - Multifidus muscle bulk

On observation he demonstrated a significant sway back posture with a flat lumbar spine and posterior pelvic tilt. An ultrasound scan revealed he had overactive tensor fascia latae (Figure 4) and poor muscle bulk of his lower gluteus maximus .

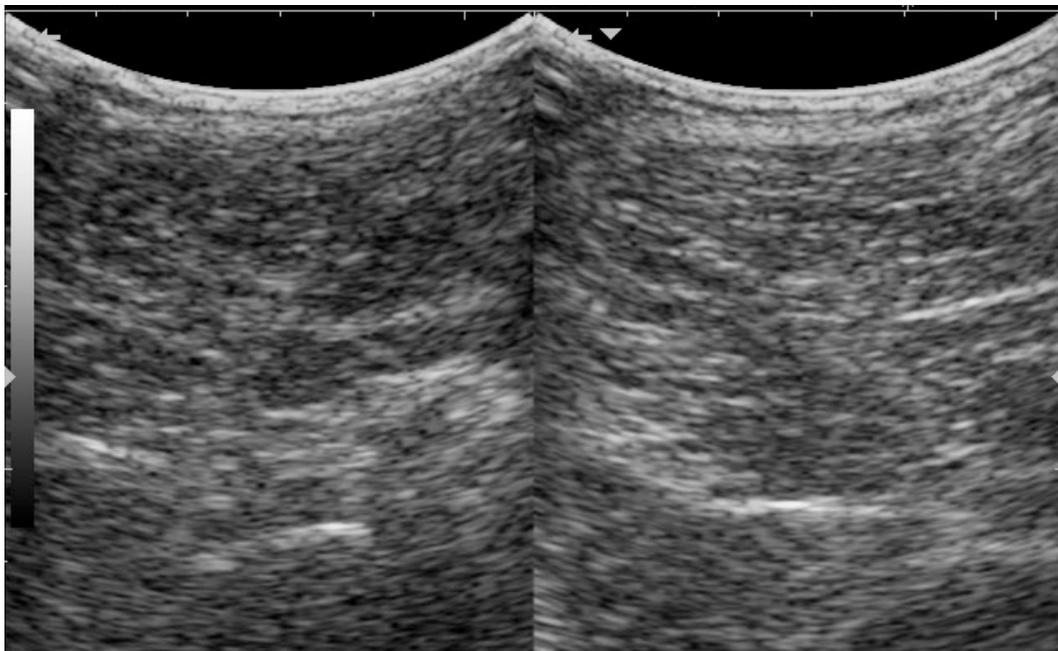
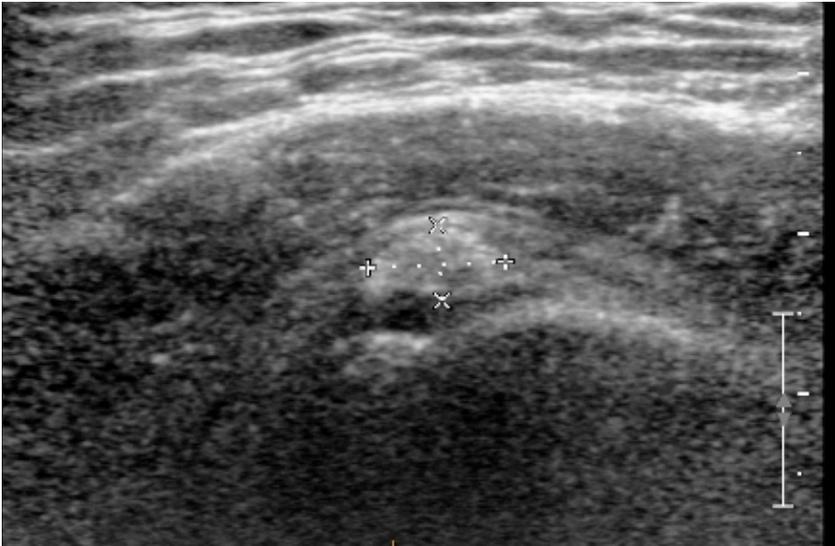


Figure 4- TFL with sway back posture TFL with neutral posture

A lateral hip scan showed Mark had calcific tendinosis of the gluteus medius tendon (Figure 5) and that tight overactive TFL and upper gluteus maximus muscles were compressing the gluteus medius tendon upon weight-bearing exercises such as getting out of a chair, squatting and stair climbing .

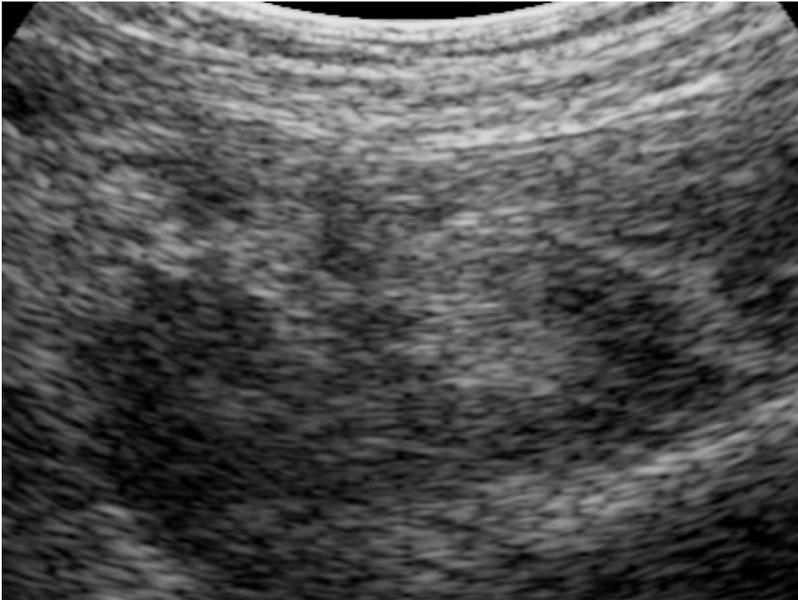


**Figure 5 -
Calcific
tendinosis of
the gluteus
medius tendon**

His rehabilitation then involved soft tissue treatments to his TFL and upper gluteus maximus to reduce tone. A exercise program was developed to restore muscle strength and bulk to his lower gluteus maximus and reactivate lumbar multifidus. A stretching program for the TFL and upper gluteus maximus muscles was also started. Using biofeedback with RUSI the iliopsoas (Figures 6 and 7), gluteus medius and minimus muscles were taught to be engaged and progressively strengthened with a series of targeted home and gym exercises.



**Figure 6 -
Scanning of the
iliopsoas
muscle**



**Figure 7 -
Biofeedback of the
iliopsoas muscle
with rehabilitative
ultrasound imaging**

After 6 weeks of the physiotherapy treatment Mark reported a significant reduction in his lateral hip pain with functional activities and had resumed his normal walking and cycling activities.

