

# FEMORAL MONONEUROPATHY: COMPLICATING A DIFFICULT PELVIC URETEROLITHOTOMY

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*Abstract* — Femoral mononeuropathy is a complication of gynecological and urological operations. The objective of this case report is to bring to the attention of fellow urologists the very existence of this complication and offer measures to prevent it. A 48 year old obese woman with a 2 year history of frequent left renal colics, and a non-function left kidney on IVP underwent a retrograde ureterogram study and a transvaginal ureterolithotomy, in an exaggerated lithotomy position. Postoperatively, a left leg paralysis required 3 weeks of care and encouragement to heal. To prevent this complication, avoid putting too long and too much pressure by retractors on the psoas muscles. During the abdomino-perineal procedures, frequent change of retractor site and monitoring of distal arterial pulses would be helpful. Also, do not use the exaggerated lithotomy position for an extended period of time.

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*Key words:* Renal colic; non-function kidney mononeuropathy.

her left leg.

The left knee could not be extended voluntarily, and the knee reflex was absent on this side. No other neurologic deficit was present and the diagnosis of an isolated quadriceps paralysis on the left side was established. The consultant neurologist's impression was that in view of the patient's history an axonal damage was most likely and a good prognosis was expected. Fortunately, with the help of the physical therapist the patient was able to walk in 3 weeks. In the mean time a great deal of encouragement and reassurance was given to the patient in order to alleviate her anxiety. In a 3 month follow-up, there was no neurological sequelae and an IVP revealed a complete return of the left kidney function.

## INTRODUCTION

Femoral mononeuropathy is a known complication of gynecological surgery (1). Its occurrence in major pelvic surgeries including urological and renal transplantation is reported with increasing frequency (2,3,4,5,6).

The objective of this case report is to bring to the attention of fellow urologists the very existence of this complication and offer measures to prevent it.

## CASE REPORT

A 48 year old obese woman with a 2 year history of frequent left renal colics, and a non-function left kidney on IVP was seen at our clinic. During a retrograde ureterogram study under general anesthesia, to locate the 1.5 cm left pelvic area density, a bimanual pelvic examination was done carefully. The pelvic ureter calculus was easily palpable transvaginally. This prompted a transvaginal ureterolithotomy, in an exaggerated lithotomy position. The procedure proved to be difficult technically, and 3 hours was needed to release the fibrotic tissues around the calculus and deliver it successfully. A tube drain was left in place, without closure of the ureterotomy site. The next morning, attempt at getting her out of bed was not successful because of the patient's inability to stand on

## DISCUSSION

The tragic scenario of neural damage during the surgical procedures is identified when an uneventful anesthesia and operation have been performed and the evening of the surgery or the day after, paresthesia, weakness and pain of the involved site becomes evident. The diagnosis is confirmed by physical examination and electromyographic studies and/or nerve conduction velocity determination.

This type of nerve damage, has more commonly affected the ulnar nerve due to the pressure to this nerve in the ulnar canal when the upper extremity is fully extended and supinated (7). Kvist reports that out of 147 abdominal hysterectomies, 17 patients (11.6%) developed femoral mononeuropathy. The problem took between 3 to 65 days to clear. Fifteen patients were cured, but in 2 cases the pain persisted (1). The femoral nerve has a relatively poor blood supply. Among others, this nerve supplies the quadratus femoris and sartorius muscles (1,6). Cadaveric studies have demonstrated that flexion, abduction and external rotation of the thigh during a lithotomy position, does in fact angulate and put the femoral nerve under pressure by the inguinal ligament. To prevent this dreadful complication, avoid putting too long and too much pressure by retractors on the psoas muscles (3,8). During the abdomino-perineal

procedures, frequent change of retractor site and monitoring of distal arterial pulses would be helpful. Also, do not use the exaggerated lithotomy position for a extended period of time.

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