A REVIEW ON THE EFFECTS OF DRUG ABUSE THROUGH FEMORAL TRIANGLE

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ABSTRACT

The most common form of intravenous or parenteral drug abuse was through the femoral region. The femoral vein was frequently used to gain vascular access by habitual drug abusers. Quite often the common complications were cellulitis, abscess formation, acute or chronic deep venous thrombosis, infected thrombi in the vein and artery, arteriovenous fistulae, infective endocarditis, and pseudo aneurysm formation. This complication of intravenous drug abuse was not only limb threatening but can also be life threatening. The management of IFAP was difficult and controversial. The new clinical service has proved popular and may be a valuable tool for identifying disease rate at an initial stage. Longer term evaluation of its effectiveness as a harm reduction intervention among patients who inject in the FV was now needed. Ligation of IFAPs was an effective, safe and simple option. Primary repair with preservation of the native vessel was suggested if infection was limited. The extent of the treatment depends on the extent of the infection.

Keywords: Femoral Triangle, pseudo aneurysm, drug abuse.

INTRODUCTION

Femoral Triangle:
The femoral triangle is a hollow anterior thigh region. Many large neurovascular structures pass through this area, and can be accessed very easily. Thus, it was a region of both anatomical and clinical importance. The femoral triangle contains some of the major neurovascular structures of the lower limb.¹

The contents of the femoral triangle were:
Femoral nerve Transmits through the anterior compartment of the thigh, and provides sensory receptors for the lower limbs.
Femoral artery-Responsible for the majority of the arterial supply to the lower limb.
Femoral vein-The great saphenous vein drains into the femoral vein within the triangle.
Femoral canal - A structure which contains deep lymphnodes and vessels.
The femoral artery, vein and canal were contained within a fascial compartment known as the Femoral sheath.
The contents of the femoral triangle:
NAVEL: N: Nerve.A: Artery.V: Vein.E: Empty space (this is important as it allows the veins and lymph vessels to distend, so they can cope with different levels of flow).L: Lymph canal.
The femoral nerve was part of the lumbar plexus. It was formed by L2-4 roots and reaches the front of the leg by penetrating the psoas muscle before it exits the pelvis. The femoral nerve leaves the pelvis by passing beneath the medial inguinal ligament to enter the femoral triangle just lateral to the femoral artery and vein. Approximately 4 cm proximal to passing beneath the inguinal ligament, the femoral nerve was covered by a tight fascia, at the iliopsoaic groove. The nerve can be compressed anywhere along its course, but it was particularly susceptible within the body of the psoas muscle, at the iliopsoaic groove, and at the inguinal ligament. The main motor component innervates the iliopsoaic (a hip flexor) and the quadriceps (a knee extensor). The sensory branch of the femoral nerve, the saphenous nerve, innervates skin of the medial thigh and the anterior and medial aspects of the calf.

Pseudo aneurysm:
Drug abuse was a global social and health problem. Recently, there has been an increase in the incidence of major vascular complications such as infection of the femoral region vessels due to intravenous (IV) drug use. Approximately 75% of all admissions for accidental intra-arterial drug injections involve the lower limb; hence, the most common site of infected pseudo aneurysm was the inguinal region. Infected pseudo aneurysm of the femoral artery represents a devastating complication of intravenous drug abuse, especially in the event of rupture. Operative strategy depends upon the extent of arterial injury and the co prevalence of infection or sepsis. Options range from simple common femoral artery (CFA) ligation to complex arterial reconstruction with autologous grafts.

Femoral Mononeuropathy:
Femoral mononeuropathy can occur secondary to direct trauma, drug abuse, compression, stretch injury, or ischemia. The condition causes weakness predominantly of the quadriceps, which results in difficulty with ambulation. Femoral nerve compression may result in debilitating pain, requiring medical therapy and surgical intervention.
Most patients with a femoral mononeuropathy, however, can be treated conservatively with physical therapy, avoidance of excessive hip abduction and external rotation, and knee bracing to prevent buckling of the knee. Femoral mononeuropathies account for approximately 1% of all mononeuropathies seen in the author's active electrodiagnostic laboratory.
In femoral neuropathy, the iliopsoaic was involved if the lesion was in the pelvis (above the inguinal ligament). The adductor magnus and brevis, which share lumbar innervation with the quadriceps and iliopsoaic, were spared, since they were innervated primarily by the obturator and sciatic nerves.
The femoral nerve was predisposed to compression within the psoas muscle. This commonly was associated with hemorrhage into this muscle due to hemophilia, anticoagulation therapy, or trauma. Direct trauma to the femoral nerve can occur as a result of penetrating wounds or fractures of the hip or pelvis.
Intrapelvic masses may also cause compression of the femoral nerve. In addition; compression of the femoral nerve can be due to aortic or iliac aneurysms or tumors.
Lithotomy positioning during delivery or in gynecologic/urologic procedures also has been associated with compressive femoral neuropathy. In this position, the sharp flexion of the hip can compress the nerve at the inguinal ligament. Excessive hip abduction and external rotation cause additional stretch on the nerve.

Femoral Nerve Dysfunction
Dysfunction was a loss of movement or sensation in parts of the legs due to nerve damage. The usual causes of femoral nerve dysfunction are trauma to the region, persistent pressure on the nerve, compression or entrapment of the nerve by nearby parts of the body or disease-related structures, persistent pressure on the nerve decreases blood flow in the region. This can lead to further complications. The femoral nerve can also be damaged if there is a broken pelvis bone, a catheter placed into the femoral artery in the groin and diabetes, which can cause widespread nerve damage. Internal bleeding in the pelvis or abdominal region. One common risk factor was lying on the back with the thighs and legs flexed and turned ("lithotomy" position) during surgery or diagnostic procedures. Branches of the femoral nerve can be compressed by tight or heavy waist belts. In some cases, no cause can be found.

TREATMENT
Discontinuation of abuse drug was the first thing to do. Supportive treatment was usually given if the symptoms come on suddenly, if there were only minor sensation or movement changes, no history of trauma to the region, and no sign that nerve function was getting worse.

Other treatments include: Corticosteroids injected into the region to control obvious swelling or inflammation and pain medication, if necessary. Various other medications can reduce the stabbing pains that some people experience. The benefits of medications should be weighed against any possible side effects. Some people might benefit from surgical removal of tumours or other growths that press on the nerve. Physical therapy may be helpful to maintain muscle strength. Orthopaedic devices such as braces or splints may help in walking. Health care provider might recommend vocational counselling, occupational therapy, job changes or retraining, or similar interventions.

REFERENCES

