

PELVIC PAIN WITH SITTING: DIAGNOSTIC ALGORITHM



A. Lee Dellon, MD, PhD, Johns Hopkins University

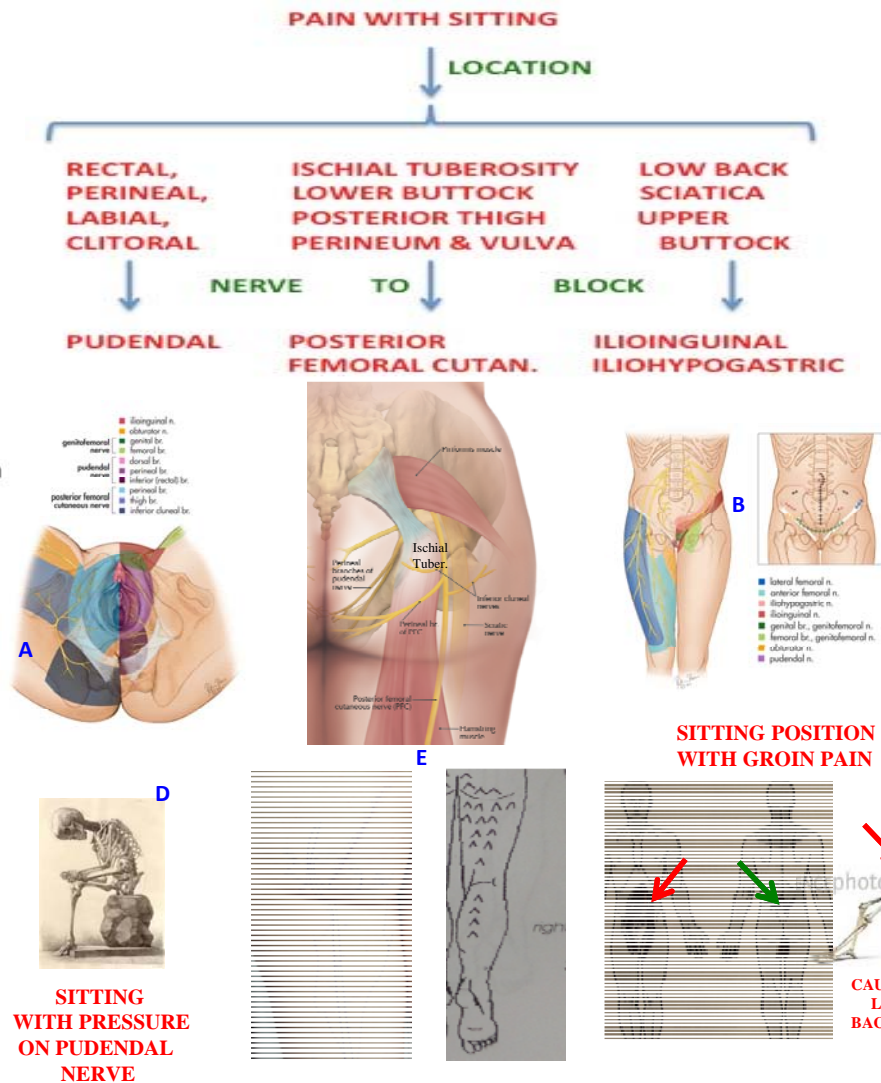
Department of Plastic Surgery

OBJECTIVE:

Painful sitting is a common complaint of both male and female patients with pelvic pain. The most common peripheral nerve implicated in this problem is the pudendal nerve (PN). The “classic history”: pain is not present when sitting on a toilet seat. The posterior femoral cutaneous nerve (PFCN) that innervates the ischial tuberosity and lower buttock (inferior cluneal nerve), and, with its perineal branch, overlaps the pudendal nerve, giving rise to the probability of diagnostic confusion (A).

METHODS:

Anatomic pathways related to the nerves surrounding the pelvis were reviewed. Clinical experience with more than 50 pelvic pain patients who complain of painful sitting are reviewed. A model of chronic nerve compression for the pelvis, based upon carpal tunnel syndrome, is constructed, in which it is realized that the median nerve crosses the wrist, but yet compression of median nerve results in numbness in fingers, but does not result in wrist joint (bone) pain because the median nerve does not innervate the wrist joint.



RESULTS:

PFCN through its inferior cluneal (IC) nerve and distal branches innervates the lower buttocks and posterior thigh skin, the regions in which the pain of sitting is perceived. PN, sciatic nerve (SN), obturator nerve (ON), ilioinguinal (II), iliohypogastric (IH) and genitofemoral (GF) nerves cannot transmit information about sitting that is interpreted as pain. (A) PFCN nerve innervates the region about the ischial tuberosity. (B) Injury to the anterior pelvic region can injure the II, IH, GF, and ON, and cause the patient to sit leaning backwards, causing secondary pain with sitting (C), interpreted as “sciatica”, and can also cause compression of the PFCN, which, through its perineal branch, can result then in secondary pain in the perineum and labia/vestibule, simulating PN compression symptoms. Treatment must be directed primarily to resection/decompression of the anterior nerves. (D) PN compression causes symptoms in distribution of its branches; anus, perineum, labia/scrotum, vestibule, vagina, clitoris/penis, but not true pain in the ischial tuberosity region, because the PN does not innervate this region.

CONCLUSION:

PFC nerve is the most common cause of pain with sitting. PFC is usually injured in sports (hamstring tear) or as a complication of previous PN or SN surgery. Nerve blocks are best way to distinguish etiology of pain with sitting.