

Faculty of Medicine

Tabriz University of Medical Sciences

دانشکده پزشکی تبریز





2006/7/15

Superior Hypogastric Plexus Block and Neurolysis

D. Aghamohammadi M.D Anesthesiologist Pain and Palliative Care Center

Anatomy:

• The superior hypogastric plexus is a retroperitoneal structure that extends bilaterally, just anterior to the vertebral column between the lower third of L5 and upper third of S1 vertebral bodies. It is formed by pelvis visceral afferents and efferent sympathetic nerves from branches of the aortic plexus, and fibers from the splanchnic nerves.

Pain originating from:

- Bladder
- Urethra
- Uterus
- Vagina
- Vulva
- Perineum
- Prostate
- Penis
- Testes
- Rectum
- Descending colon

Pain secondary to:

- Cancer that metastasized to the pelvis (cervical, prostate, testicular, colorectal etc.)
- Endometriosis
- Radiation Injury
- secondary to malignancy, endometriosis, reflex sympathetic dystrophy, causalgia, proctalgia fugax, and radiation enteritis.
- Hypogastric plexus block is also useful in the palliation of tenesmus secondary to radiation therapy to the rectum.

Benefits

• The benefits of a superior hypogastric plexus block can be temporary for some people and the amount and duration of pain relief vary from person to person. Some tend to have relief for weeks where others can benefit from the block for years Hypogastric plexus block with local anesthetic can be used:

- Hypogastric plexus block with local anesthetic is also useful in the treatment of acute herpes zoster and post herpetic neuralgia involving the sacral dermatomes.
- diagnostic tool when performing differential neural blockade

Procedure:

- usually performed with a posterior approach.
- anterior approach can be done with fluoroscopy, computed tomography-guidance, or ultrasoundguidance
- transdiscal approach is done under either under fluoroscopy, or computed tomography-guidance, and it allows you to be laying down on your abdomen or your side.
- Radioablation of the superior hypogastric plexus is also another treatment modality for longer-lasting pain relief.

Risks and Complications

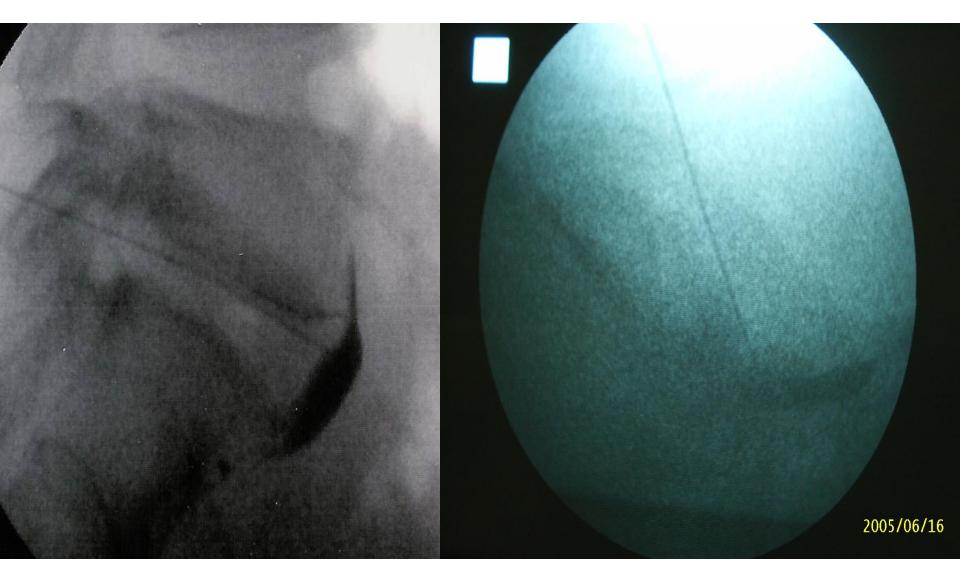
- The risk for this procedure is very low
- Chan, et al. (1997) describes a patient developing somatic nerve damage after a computed tomography scan-guided neurolytic block of the superior hypogastric plexus.
- if the needle is misplaced you can experience bleeding, especially into your retroperitoneal space, nerve injury and/or paralysis, puncture of surrounding organs, puncture of adjacent vessels, and distal ischemia (if the iliac artery is penetrated and the needle dislodges an atherosclerotic plague)³. Risks secondary to the spread of the anesthetic include drug allergy and seizure (if the medication is injected into a blood vessel). Lastly with any penetration of skin and soft tissues, the risk of infection always exists.
- The most common side-effect related to this procedure is lack thereof.

Risks and Complications

- damage to the pelvic viscera including the
- ureters during hypogastric plexus block is a distinct possibility. The incidence of this complication will be decreased if care is taken to place the needle just beyond t anterolateral margin of the L5-S I interspace.
- Needle placement too medial may result in epidural, subdural, or subarachnoid injections
- or trauma to the intervertebral disk. Spinal cord, and exiting nerve roots. Although uncommon. infection remains an everpresent possibility, especially in the immunocompromised cancer patient. Early detection of infection, including diskitis. is crucial to avoid potentially life-threatening sequelae.



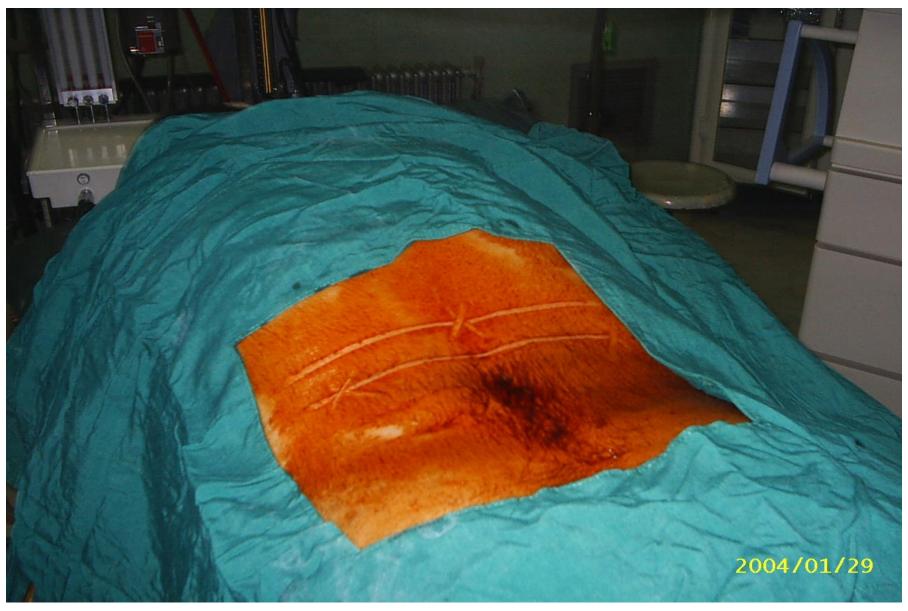
D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



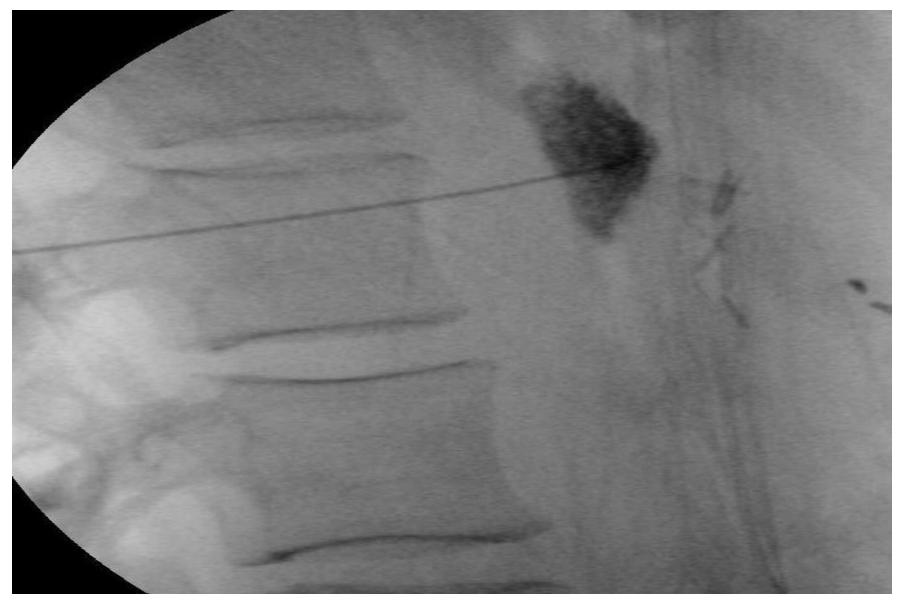
D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



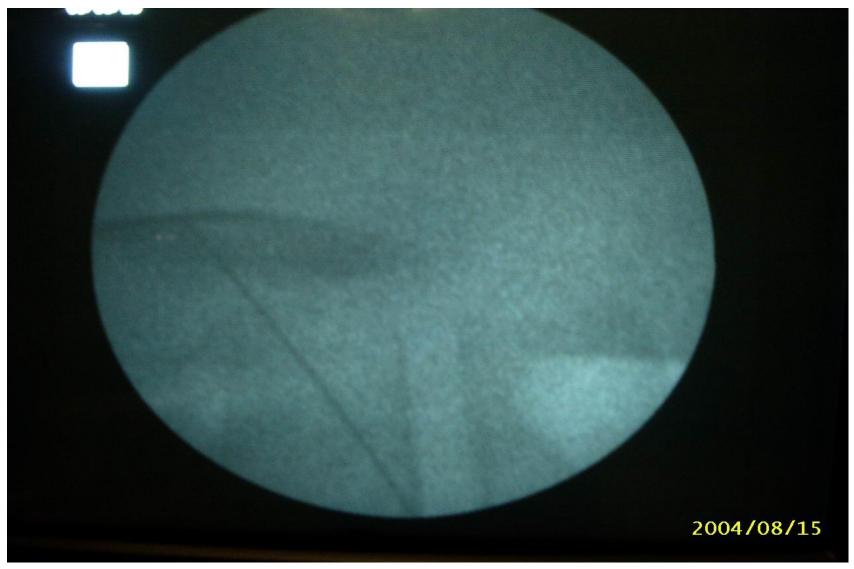
D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



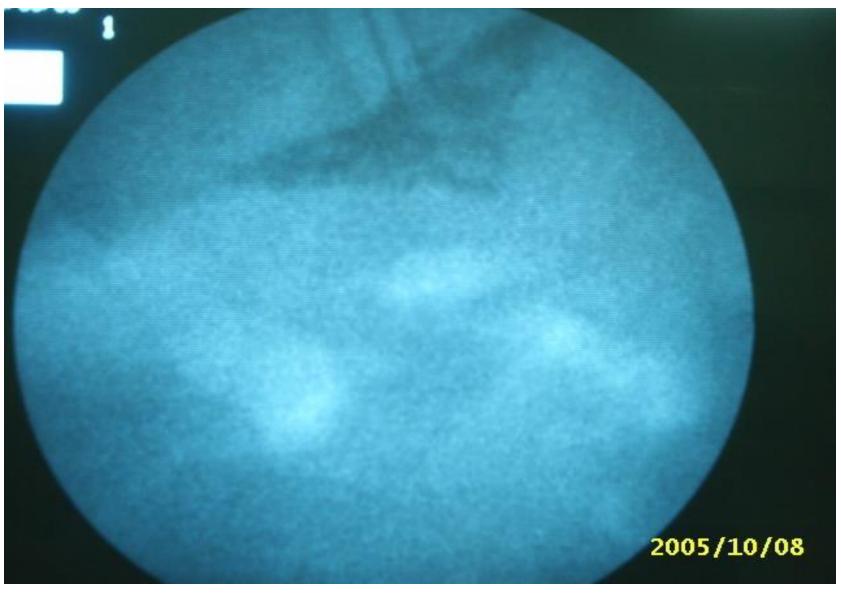
D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



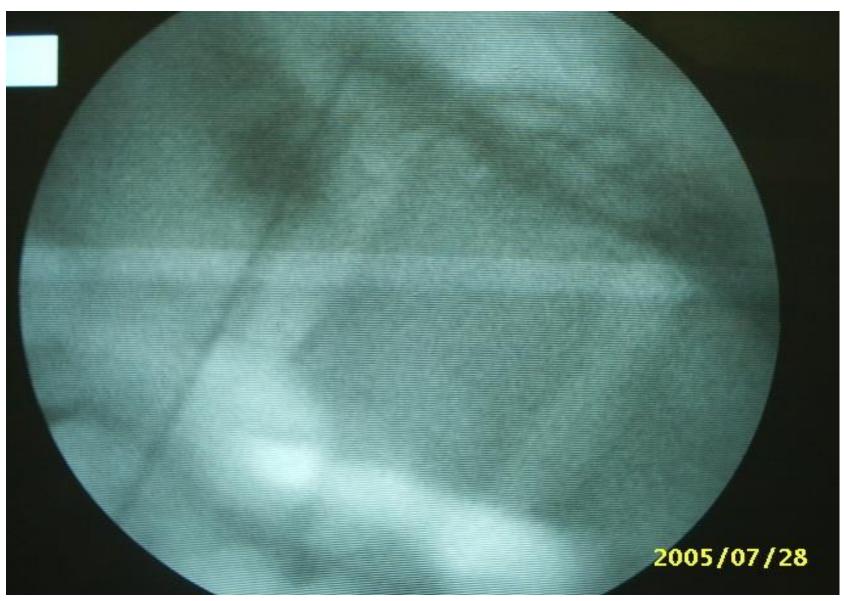
D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



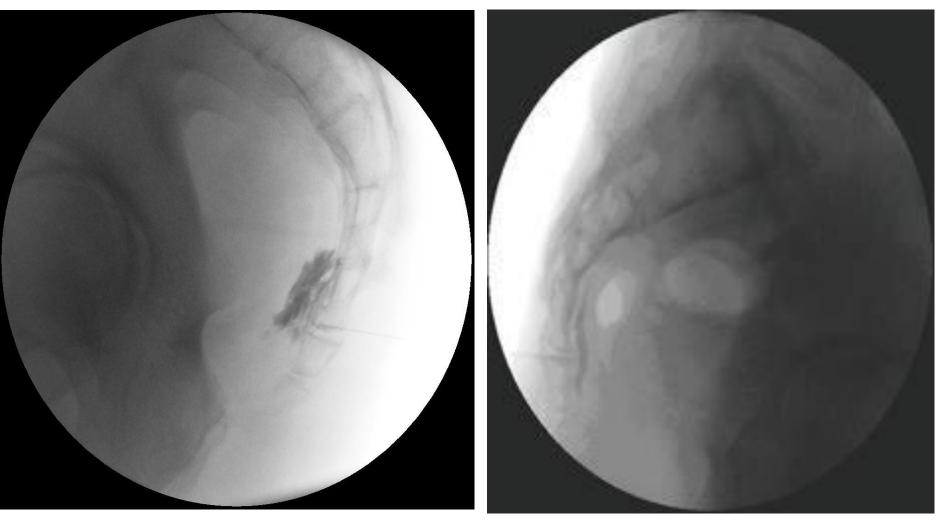
D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



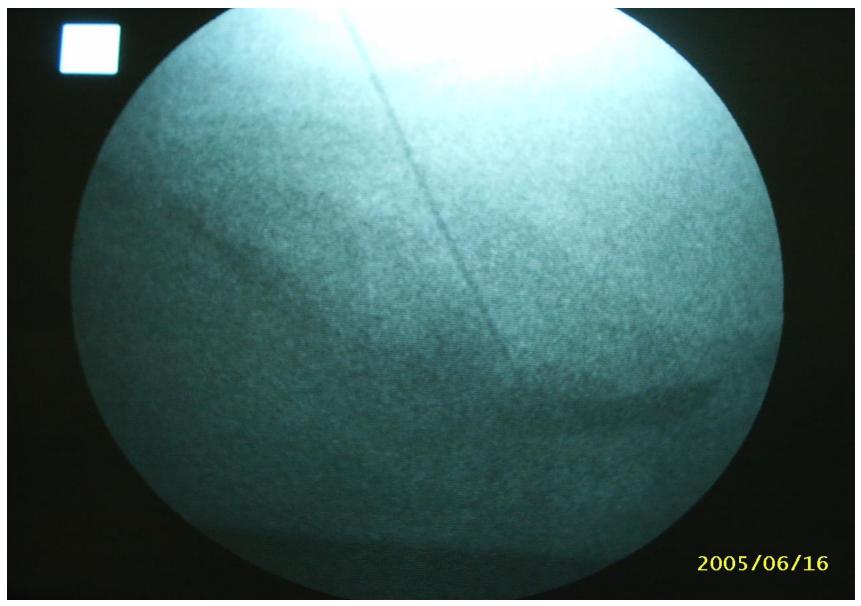
D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



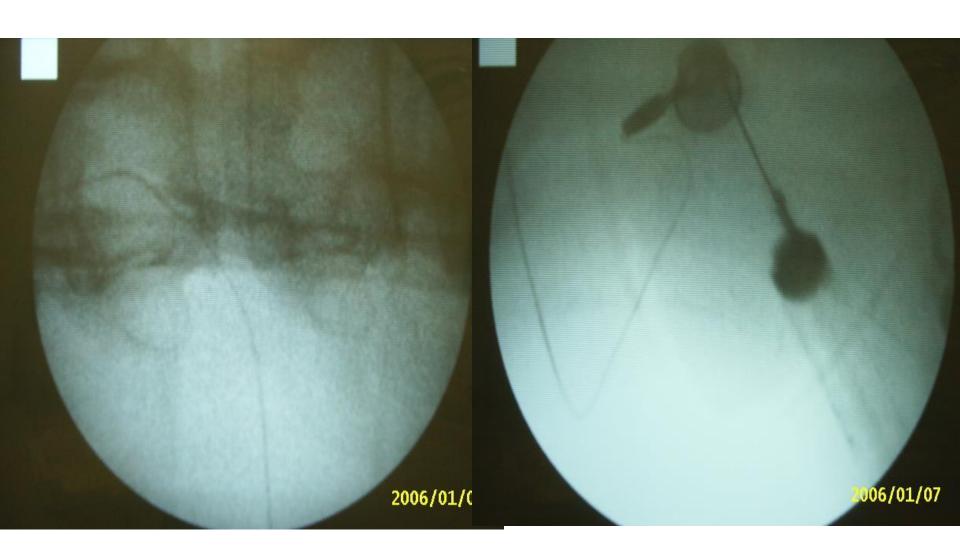
D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



D. Aghamohammadi ; Anesthesiologist, pain and palliative care center



I am not young enough to learn every thing