# Surgical treatment of pain

- We usually affect chronic pain in malignant tumors, indications for benign reasons are rarer.
- We indicate patients who have a chance of longer survival and are in good general condition (to manage the operation).
- It is the method of choice always after palliative RT and the application of strong analgesics.
- The general effort is to make performance as simple as possible.

# Spinal epidural and intrathecal application of morphine

■ The advantage is a lower dose of morphine, it does not burden the patient much. Insert a catheter there and apply it.

# **Spinal epidural stimulation**

- It blocks the transmission of information about spinal cord pain and does not lead to irreversible changes or addiction.
- It is suitable for benign causes of pain, we put the stimulator under the skin. The disadvantage is the price.

# **Surgical methods**

- Pain pathway main fibers A and C (A leads sharp localized pain, C dull, burning).
  - They switch in the posterior corners of the spinal cord, where the response is modulated (gating, etc...).
  - Then the 2nd N intersects and runs as a tractus spinothalamicus lateralis.
- Peripheral nerve disruption by surgery or alcoholization.
  - It is a completely inappropriate method, in addition to failure, it can also add to the pain of denervation.
- Spinal cord procedures the open way, mainly microsurgically.
  - Dorsal root entry zone coagulation (DREZ = dorsal root entry zone):
    - damage in the posterior corners of the spinal cord;
    - suitable for deafferentation pain perceiving as burning or ierky;
      - plexus avulsion, after amputations.
  - Spinothalamic chordotomy (tractotomy):
    - interruption of the lateral spinothalamic tract;
    - the result is unilateral analgesia (contralateral) suitable for unilateral pain.
  - Mediolongitudinal myelotomy (commissural):
    - longitudinal intersection of the spinal cord in the midline, interrupts the crossing of the pain pathway (crossing of the secondary fibers, most often in area C);
    - analgesia occurs below the lesion site for bilateral pain.
- Brain procedures little is done.
  - Psychosurgery bilateral cingulotomy.

# Cervical Thoracic Lumbar Pelvic

Spine and Spinal Cord

# Causalgia

- Algic syndrome, rarely caused by a partial injury to the peripheral nerve.
- Three symptoms burning pain, autonomic nerve dysfunction and trophic changes.
- It most often occurs after injuries to the median, ulnar and sciatic.
- When large nerves are affected we deal with microsurgical reconstruction of the nerve.

# Sudeck's osteodystrophy

- Severe pain, vasomotor disorders (edema, cyanosis, trophic disorder), eventually osteoporosis;
- Therapy sympathectomy

### Links

ws:Chirurgická léčba bolesti

### **Related articles**

Pain

### Source

## References