PAIN THERAPY MEDICAL CENTER

Pain therapy is the treatment of diseases that have chronic or subacute pain as a symptom, and which result in a severe impairment of the quality of life.

Pain management became a specialty about 20 years ago and has developed rapidly since.

In Europe, the prevalence of patients with chronic pain is 20% and 30% of the patients aged between 45 and 65 years old report chronic pain lasting more than one year.

Who would benefit from pain therapy?

- 60-70% of the patient population report:
 - axial pains due to cervical, thoracic or lumbar hernias
 - sacroiliac pains due to mechanical causes
 - small facet joint syndrome
 - discogenic syndrome
- Patients with neuropathic pain such as Complex Regional Pain Syndrome:
 - post-herpetic neuralgia
 - post-amputation "ghost" (fake) pain
 - plantar fasciitis
 - neuralagic pain post thoracotomy
 - post plex avulsion pain
 - pelvic and chronic abdominal pain (chronic prostatitis, interstitial cystitis, post-surgical, post-neoplastic irradiation, pain in chronic pancreatitis, etc.)
 - pectoral angina without coronary treatment
- Neurological patients with:
 - cervicogenic headache
 - orofacial pain type trigeminal neuralgia
- Oncology patients

Pain therapy is the result of a complete team working together – it involves family doctors, neurologists, neurosurgeons, orthopedists, psychologists and last but not least, physicians and kinetophysiotherapists working together with the pain management specialists for the benefit of the patient.

The Pain Therapy Center medical team

Dr. Ovidiu Nicolae PALEA

Anesthesia and intensive care specialist. Pain therapy Primary Physician Anesthesia and Intensive Care

* Pain therapy Performs in Provita Hospital: Endoscopic Discectomy Vertebroplasty performed with Dr. Mihai Magurean Percutaneous Disc FX Discectomy Infiltrations Consultations

Dr. Elena Florina URSACHE

Anesthesia and intensive care specialist Primary Physician Anesthesia and Intensive Care

Dr. Monica Sandu

Anesthesia and intensive care specialist. Pain therapy Primary Physician Anesthesia and Intensive Care

<u>Dr. Florentina Mihaescu</u> Anesthesia and intensive care specialist Primary Physician Anesthesia and Intensive Care

Dr. Sebastian BOTEZATU

Radiology and Medical Imaging Primary Radiology Physician and Medical Imaging, specialized in Interventional Radiology

Performs in Provita Medical Center and Provita Hospital: Disc FX Discectomy Vertebroplasty Infiltrations for Lumbar Pain Consultations

Dr. Ana Maria GHITOIU

Neurology Specialist in Neurology

Performs in Provita Medical Center and Provita Hospital: Electroencephalography (EEG) Electroneurography (ENG) Electromyography (EMG)

For the patients

Spinal infiltration (transforaminal)

Spinal infiltration (transforaminal) with long-lasting steroid is a minimally invasive method that introduces a local anesthetic and a very strong steroid onto the inflamed nerve.

The nerves that control the arms and legs come out of the spine through small lateral openings. These nerves become compressed, irritated and inflamed by intervertebral discs that are herniated or by bone deposits - those "beaks" that are visible even in simple X-ray examinations.

Spinal infiltration is performed in cases of pain due to irritation caused by disc hernias, disc protrusion and vertebral stenosis.

What you should expect:

After an initial tomography which shows the precise place where the infiltration will be made, the skin is sterilized and anesthetized locally. Then, the needle is advanced to the selected level under repeated X-ray control and the mixture of local anesthetic and steroid is injected.

The procedure generally lasts just a few minutes, and the pain of this procedure is similar to a regular intramuscular injection.

It is expected that the pain will start to decrease within 3-5 days and will disappear completely in about 14 days after the procedure. The pain should be gone for a period which can vary from weeks to months and sometimes to years, depending on each patient's body reaction.

The patient is asked to stay in the clinic for 10-15 minutes after the procedure for observation after which s/he can go home. Patients are advised not to drive after the infiltration.

Depending on the therapeutic response, it may be advisable to repeat the infiltration two or three times within two weeks. This therapy can be repeated three to four times a year.

Infiltration

Infiltrations can also be performed:

• intraarticular - in chronic pain of osteoarthritis, coxarthrosis (hyaluronic acid, PRP, stem cells from fat - the Lipogems method - can also be injected) in the sacroiliac joints;

• in chronic pain of the muscle tendons (tendinitis);

• in chronic pain of the peripheral nerves (carpal tunnel syndrome, ulnar neuropathy, etc.)

Radiofrequency ablation

Radiofrequency ablation is a minimal invasive procedure that uses radio waves or electric current to generate heat in the nerve, thus blocking the transmission of the painful nerve signal. The procedure results in the nerves remaining "blocked" (inactive) for between 3 and 18 months. The procedure can then be repeated. It is indicated for patients with severe pain in the cervical spine, lumbar spine that has not responded to conservative treatments, severe trigeminal neuralgia resistance to treatment.

Duration of procedure: between 20-60 minutes

Disc -**FX**

Disc-FX is a minimally invasive procedure that addresses discolored disc herniation (with a moderate degree of disc degeneration where the disc is not broken) that did not respond to conservative therapy (kinetotherapy, infiltration with steroids).

It is performed with minimal skin incision, with local anesthesia and light anesthesia on the vein, under radiological guidance in order to place the Disc-FX system precisely on the disc.

After the device is placed in the center of the disc, the damaged tissue (pulp nucleus) is removed, thus decreasing the pressure that the disc exerts on the spinal nerve, thus considerably reducing the symptoms.

In addition to classical nucleoplasty, the procedure also causes electrothermal repair of the disc. Duration of the procedure: 1-2 hours. After the procedure, the patient does not need hospitalization and will leave for home. Contraindications: vertebral fractures, massive disc hernias, severely degenerated discs.

Advantages:

- 1. The patient is not subject to the major risk of classical open surgery,
- 2. The procedure does not require admission into the hospital,
- 3. The patient can continue his / her daily activities and can quickly start recovering physically
- 4. The procedure can be performed on several levels of the spine during the same session.

Endoscopic discectomy

Endoscopic discectomy is a minimally invasive procedure that removes symptomatic broken hernias or hernias for which nucleoplasty is contraindicated. By removing the hernia, the spinal nerve is decompressed, thus eliminating the pain caused by the inflammation.

It is performed with the patient being minimally sedated venously and with the local anesthetic. A minimal incision

in the skin is performed through a cannula through which an endoscope is then inserted with which the hernia is removed.

Duration: 1-2 hours

Advantages to classic surgery:

- 1. minimal bleeding,
- 2. no muscle or bone destruction,
- 3. no scars or post-intervention fibrosis,
- 4. no later instability,
- 5. rapid recovery,
- 6. no need for admission into the hospital.

Epiduroscopy

Epiduroscopy - the minimally invasive procedure that can be performed both for diagnostic and for therapeutic purposes at the same time.

Using this procedure allows for the exploration of the epidural space through a catheter, attached to a video camera (epidural), inserted through local anesthesia at the coccyx, to identify possible scars, adhesions, fibroses around the nerves.

Once identified, these adherents / fibroses can be removed and a steady-acting steroid can be injected for therapeutic purposes, which will now have a better penetration, thus a greater effect on pain.

This procedure is recommended in chronic lumbar pain with or without irradiation on the member, which occurs after failed disc hernia operations and vertebral stenosis.

Peripheral nerve blocks

Peripheral nerve blocks mean injecting anesthetic into the plexus nerve or lymph nerve responsible for transmitting pain to an organ or a region of the body. Blocks have several purposes:

• diagnosis (inject a minimum amount of anesthetic with short duration of action to identify the precise source of pain) Indications: Diagnosis of pain in cervical, lumbar arthritis, pelvic pain

• therapeutic (nerve blockage in order to eliminate acute pain)

Indications: trigeminal neuralgia resistant to treatment, chronic migraine, continuous hemicrania

Osteocool (palliative treatment of spinal metastases)

Osteocool (palliative treatment of spinal metastases) is a minimally invasive technique based on the principle of the radiofrequency wave with thermal effect. Ablation of the tumor is done with high precision with the preservation of adjacent structures. During the same procedure, which takes less than 1 hour, the thermal ablation of the secondary tumor is done as well as the vertebroplasty if needed.

It is recommended for secondary tumors under 30 mm.

The only contraindication is for patients with a pacemaker due to radiofrequency waves.

For the doctors PAIN THERAPY TARGETS

Spinal pain

The causes:

- Degenerative: sciatica, canal / foramen stenosis, sacroiliitis, spondylarthrosis, tachycardia, fractures
- Oncology

Procedures / Interventions:

- RX or ultrasound guided steroid infiltration
- radiofrequency nerve ablation for spondylarthrosis
- percutaneous discectomy
- endoscopic discectomy
- endoscopic foraminoplasty
- endoscopy (laparoscopic microsurgery)
- kyphoplasty
- vertebroplasty
- osteocool (radiofrequency ablation and vertebral metastases)

Joints pain

The cause: degenerative (arthrosis)

Procedures / Interventions:

• infiltration with steroid, hyaluronic acid, PRP, stem cells in the coxofemoral joint, knee, shoulder for coxarthrosis, gonarthrosis, "frozen" shoulder

• radio pharyngeal abnormalities of geniculate nerve for gonarthrosis

Headaches

The cause: degenerative

Procedures / Interventions:

- trigeminal nerve radiofrequency ablation
- steroid infiltration and Arnold's ablation
- Botox infiltration for headaches
- radiofrequency ablation for cervical spondylarthrosis

Abdominal and pelvic pain

The causes:

- idiopathic: chronic pancreatitis, chronic prostatitis, etc.
- nervous neuralgia of abdominal walls (pudendal nerve, nerve, ileo-inguinal, etc.)

Procedures / Interventions

- hypogastric plexus block, odd, celiac
- radiofrequency ablation of the pudendal, ilio-inguinal and splanchnic nerve

Oncological pain

The causes: invading tumors

Procedures / Interventions

- steroid infiltration
 radiofrequency ablation
 celiac plexolysis