Background and Aims With the addition of corticosteroids to the epidural injection in 1952, this procedure evolved as a cornerstone for the management of chronic back pain.

The introduction of fluoroscopy revolutionized the various techniques of epidural steroid injection (ESI) allowing easier access and different approaches to the spinal canal.

Fluoroscopy as the gold standard imaging tool of neuraxial procedures heavily relies on bony landmarks and contrast substance for needle placement, with the main disadvantage of radiation exposure.

Ultrasound as a well-established imaging tool in regional anesthesia became very appealing also in the area of neuraxial procedures, bringing non-iradiating alternatives to the ESI.

The aim of this presentation is to illustrate the cervical and lumbar transforaminal ESI comparing the ultrasound to the gold standard of techniques.

Methods This review describes the techniques of Transforaminal Epidural Steroid Injections from the two imaging points of view, discussing advantages or disadvantages encountered in the recent medical literature.

Results The cadaver and human studies available in the last 15 years on lumbar US guided TESI from an axial and parasagittal placement of the curvilinear probe showed good results and improvement of the techniques, though still needing tip needle confirmation with fluoroscopy.

In the meanwhile the cervical ultrasound selective nerve and transforaminal injections are more established techniques with good results over the time.

Conclusions Ultrasound is such an appealing imaging tool and offers many advantages over the more established fluoroscopy.

There are categories of patients who would tremendously benefit off of it, though further researches and improvement techniques needs to be done.

Results The objective examination revealed controlled gonalgia, but pain on palpation of the posterior region of the homolateral leg, slight edema and skin color change. An ultrasound scan was performed, identifying significant partial occlusion of the popliteal vein, for this reason the patient was sent to the emergency department.

Conclusions Patients with chronic pain tend to have their pain undervalued by family members and some health professionals, and acute events may be overlooked. The careful assessment of the patient and the appreciation of new painful events guarantees a careful and safe follow-up, as well as possible life-threatening diagnoses.

Background and Aims To compare Massage-Electroacupuncture (MA) versus Epidural Analgesia (EP) in patients with chronic low back pain (CLBP).

Methods Patients with CLBP were randomly allocated to MA or EP. MA involved 8 sessions per week, while EP involved 3 epidural injections administered at 15-day intervals. Pain was evaluated using the 10-unit visual analogue scale, psychological parameters were assessed with the Profile of Mood States scale (POMS), and quality-of-life was appraised with the 36-item Short Form survey (SF-36). Evaluations were performed before randomization and immediately after the completion of each treatment, while two additional assessments by telephone were scheduled at 24- and 48-weeks post-intervention.

Results 110 patients [female 63 (58.7%), age 49.97 ± 9.90 years] were allocated into the MA (n = 55) and EP group (n = 55). Significant improvements in pain levels were observed over the 48-week follow-up (p < 0.001 in both groups). Total POMS improved immediately after the interventions (p < 0.001 in both groups), but returned to baseline at the 24- and 48-week follow-up). Similar improvement was observed in the SF-36 (p < 0.001 in both groups) but recessed after the 48-week follow-up. MA was superior to EP for pain management immediately after the intervention (1.89 vs. 3.00 VAS units; p < 0.001) and at 48 weeks (2.05 vs. 3.70 VAS units; p < 0.001) post-intervention.

Conclusions Both methods are equally effective in reducing chronic low back pain and improving psychological or quality-of-life parameters in patients with chronic low back pain.

Background and Aims Osteoarthritis of the knee is a degenerative joint disease with progressive degradation of articular cartilage and subchondral bone due to continuous wear, additional stress and overload. Symptoms depending on the stage of the disease may include joint pain, tenderness, stiffness, locking, and sometimes an effusion. Pain can be managed with minimal invasive treatments, such as genicular nerve block and cryoablation therapy.

Methods 82-year-old patient with a history of arterial hypertension, idiopathic bilateral pulmonary thromboembolism, osteoarticular disease and patella fracture, medicated with apixaban 5 mg 12/12h. Patient with previous positive diagnostic block of the right geniculate nerves and total pain relief, is admitted for cryoablation, after telephone information of recurrence of symptoms. Anticoagulant suspension was indicated 72 hours before the procedure.

Results The objective examination revealed controlled gonalgia, but pain on palpation of the posterior region of the homolateral leg, slight edema and skin color change. An ultrasound scan was performed, identifying significant partial occlusion of the popliteal vein, for this reason the patient was sent to the emergency department.

Conclusions Patients with chronic pain tend to have their pain undervalued by family members and some health professionals, and acute events may be overlooked. The careful assessment of the patient and the appreciation of new painful events guarantees a careful and safe follow-up, as well as possible life-threatening diagnoses.