



PAIN CLINIC

Bhagwan Mahaveer Jain Hospital

Miller's road, Vasanth Nagar, Bangalore 560052

For Appointments: 9686607775, 9945953030

For Emergency Care: +91 9980094111



ABOUT US

Dear Colleague,

It is with great pleasure that we wish to inform you about the comprehensive interdisciplinary pain medicine services at the Pain Clinic.

At the core of our unit, is interventional pain management, where image guided precise minimally invasive day care procedures are offered to eligible chronic pain (musculoskeletal, neuropathic and cancer related) patients. We are ably supported by top notch psychiatry and psychology services that ensure every facet of chronic pain is addressed.

We seek your support in this endeavor.

Regards,



Dr Sudhindra Dharmavaram

MBBS, MD, FFPMRCA (UK)

Clinical lead - Pain Medicine and
Interventional Pain Management



Dr Lakshmi B K

MBBS, MD(Anaes), KEM Mumbai

Pain Medicine and
Interventional Pain Management

SPINAL PAIN
MUSCULOSKELETAL PAIN
**NEUROPATHIC
PAIN**
CONDITIONS
POST HERPETIC NEURALGIA
ENTRAPMENT
NEUROPATHIES
**TRIGEMINAL
NEURALGIA**
ATYPICAL FACIAL PAIN
*PAINFUL PERIPHERAL
NEUROPATHIES*
**ABDOMINAL
AND PELVIC
PAIN**
SYNDROMES
FIBROMYALGIA
*AND CENTRAL
SENSITIZATION*
SYNDROMES
**CHRONIC POST-
SURGICAL PAIN**
COMPLEX
REGIONAL PAIN
SYNDROME
CANCER PAIN

CERVICAL MEDIAL BRANCH RADIOFREQUENCY NEUROTOMY

TRIGEMINAL GANGLION RADIOFREQUENCY ABLATION

TEMPOROMANDIBULAR JOINT INJECTION

GLOSSOPHARYNGEAL NERVE BLOCK

STELLATE GANGLION BLOCK AND RADIOFREQUENCY ABLATION

THIRD OCCIPITAL NERVE BLOCK AND RADIOFREQUENCY NEUROTOMY

CERVICAL EPIDURAL STEROID INJECTION

GREATER AND LESSER OCCIPITAL NERVE BLOCKS

SPHENOPALATINE GANGLION BLOCK AND RADIOFREQUENCY ABLATION

CERVICAL MUSCLE INJECTIONS

INTERCOSTALS NERVE BLOCK AND RADIOFREQUENCY ABLATION

SPLANCHNIC NERVE NEUROTOMY

SUPRASCAPULAR NERVE BLOCK AND NEUROTOMY

LUMBAR MEDIAL BRANCH NEUROTOMY

LUMBAR TRANSFORAMINAL EPIDURAL INJECTIONS

ILIOINGUINAL NERVE BLOCK CELIAC PLEXUS NEUROLYSIS ILIOHYPOGASTRIC NERVE BLOCK

LUMBAR FACET INJECTIONS

QUADRATUS LUMBORUM INJECTIONS

SACRO ILIAC NEUROTOMY CAUDAL EPIDURAL STEROID INJECTIONS

SACROILIAC JOINT INJECTIONS SACRAL NERVE ROOT INJECTION

GANGLION IMPAR BLOCK COCCYGEAL NERVE INFILTRATION

PUDENDAL NERVE BLOCK ANKLE INJECTIONS

BICIPITAL TENDON INJECTIONS

WRIST INJECTION SUPRASPINATUS INJECTION

SAPHENOUS NERVE BLOCK *SHOULDER JOINT INJECTIONS*

FEMORAL NERVE BLOCK BRACHIAL PLEXUS BLOCK

GENICULAR NERVE ABLATION ACROMIOCLAVICULAR JOINT INJECTIONS

PLANTAR FASCIA INJECTIONS

OBTURATOR NERVE BLOCKS *ADDUCTOR TENDON INFILTRATION*

COSTO CHONDRAL INFILTRATION SUPERIOR HYPOGASTRIC PLEXUS

BLOCK INTRATHECAL PUMP VERTEBROPLASTY

OVERVIEW

Chronic pain is a complex condition that requires a multidisciplinary approach for effective management. Chronic pain has biological, psychological, and social components. At the Pain Clinic, we provide comprehensive care for individuals with chronic pain. Our team of professionals offers a range of services and treatments tailored to each patient's unique needs.

Chronic pain management is not a one-size-fits-all approach, and we are committed to developing individualized treatment plans for each patient.



Specialised in the management of more than 300 types of persistent pain.



Individualized treatment plans



Pain medicine and musculoskeletal medicine



More than a 100 different image guided (Ultrasound, X-ray) interventions of pain



Advanced interventions including sympathectomy, radiofrequency ablation, spinal cord stimulator and intrathecal pumps



Inter-disciplinary pain management program with a focus on functional restoration



Day care center



Physiotherapy services



Psychology services

SPINAL AND RADICULAR PAIN

A major problem in developing economies with significant impact on sufferers' quality of life and the economy. Attendant psychosocial problems are common.

COMMON CAUSES AND INTERVENTIONAL TECHNIQUES:

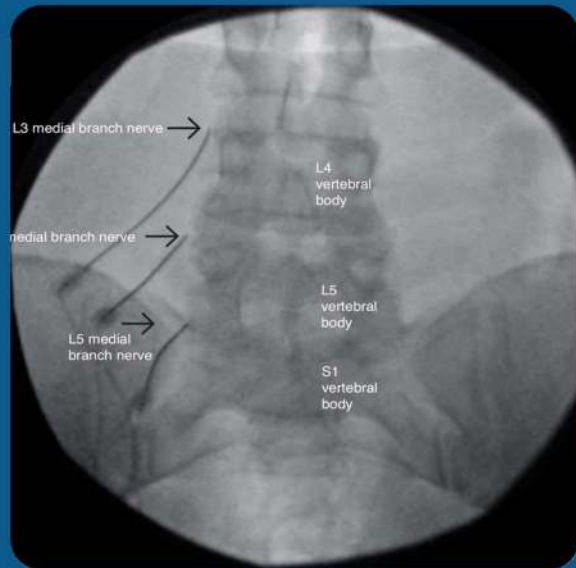
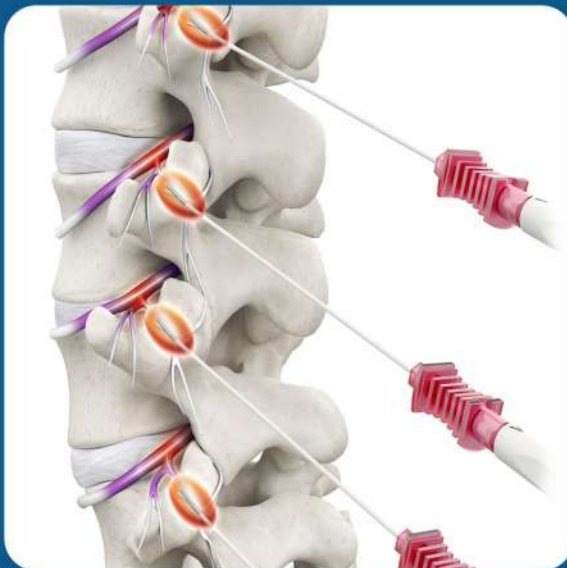
RADICULAR PAIN :

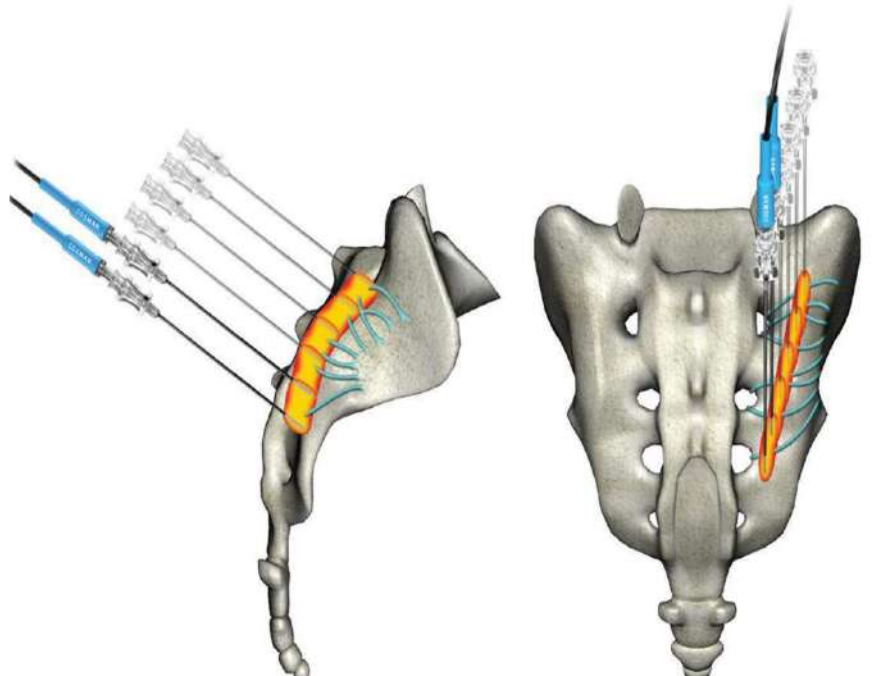
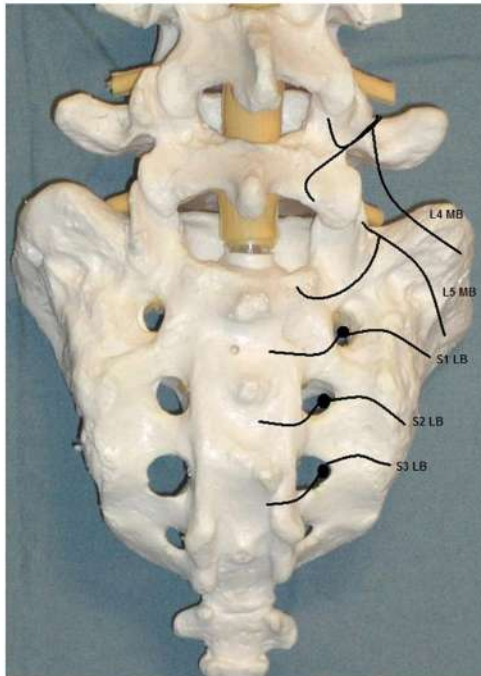
- Common causes: prolapsed intervertebral disc and/or osteophytes.
- Transforaminal epidural steroid injection (at cervical, thoracic, and lumbosacral levels) for swift pain control, diagnosis, and rehabilitation.



FACETOGENIC PAIN

- Commonly caused by facet joints (at cervical, thoracic, and lumbar levels).
- Analgesics, physiotherapy, and physical rehabilitation.
- Interventional techniques: Radiofrequency denervation of the facet joints, Facet joint steroid injections.





SACROILIAC JOINT PAIN

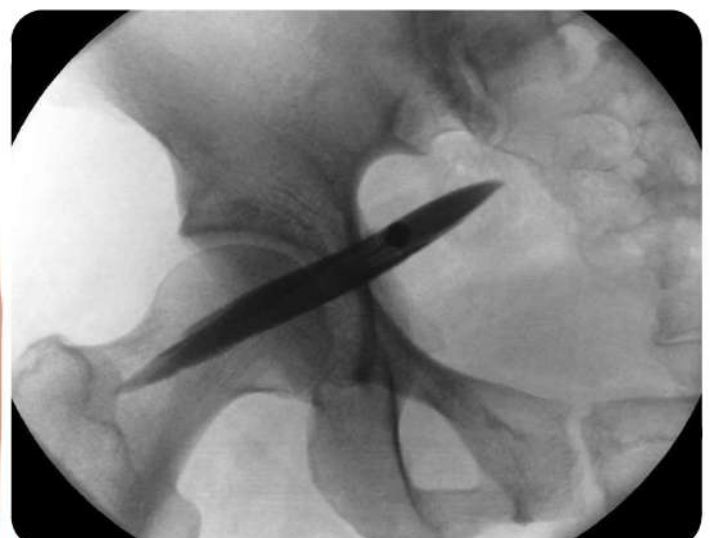
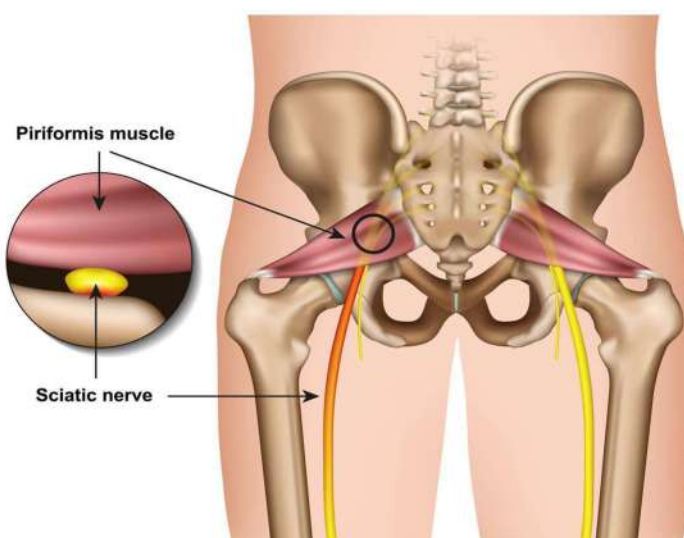
- Dull ache in the buttock with pain radiating to knee and legs.
- Diagnosed by clinical tests and X-ray guided local anesthetic and steroid injection.
- Radiofrequency denervation of sacral lateral branches for long term pain control.

MUSCULAR STRUCTURES IN THE SPINE AMENABLE TO INTERVENTIONS

- Common cause of low back and spinal pain.
- Anti-inflammatory medications, rest, and physiotherapy.
- Individual muscles (Psoas Major and quadratus lumborum) can be the pain generator

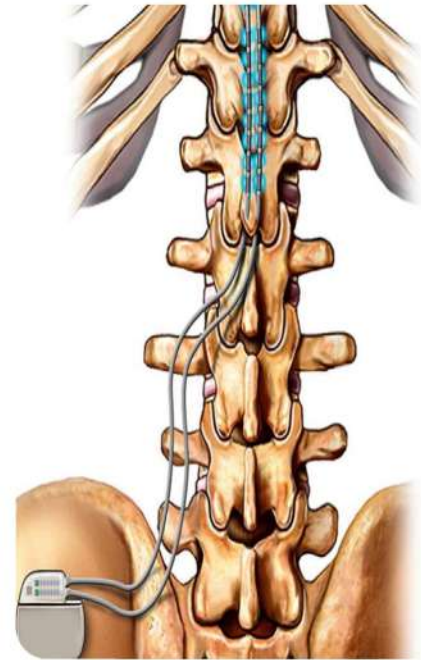
PIRIFORMIS SYNDROME

- Irritation of sciatic nerve due to muscle spasm/tautness or anatomical abnormalities of the sciatic nerve and the piriformis muscle.
- Image-guided local anesthetic injection for diagnosis and therapy. BOTOX injections for long-term pain relief.



FAILED BACK SURGERY SYNDROME

- Continued back and leg pain after successful spine surgery.
- Spinal cord stimulators for pain control and improved quality of life.
- Done in 2 stages: Trial phase (epidural leads and external stimulator) and Permanent implantation (if meaningful benefit observed).

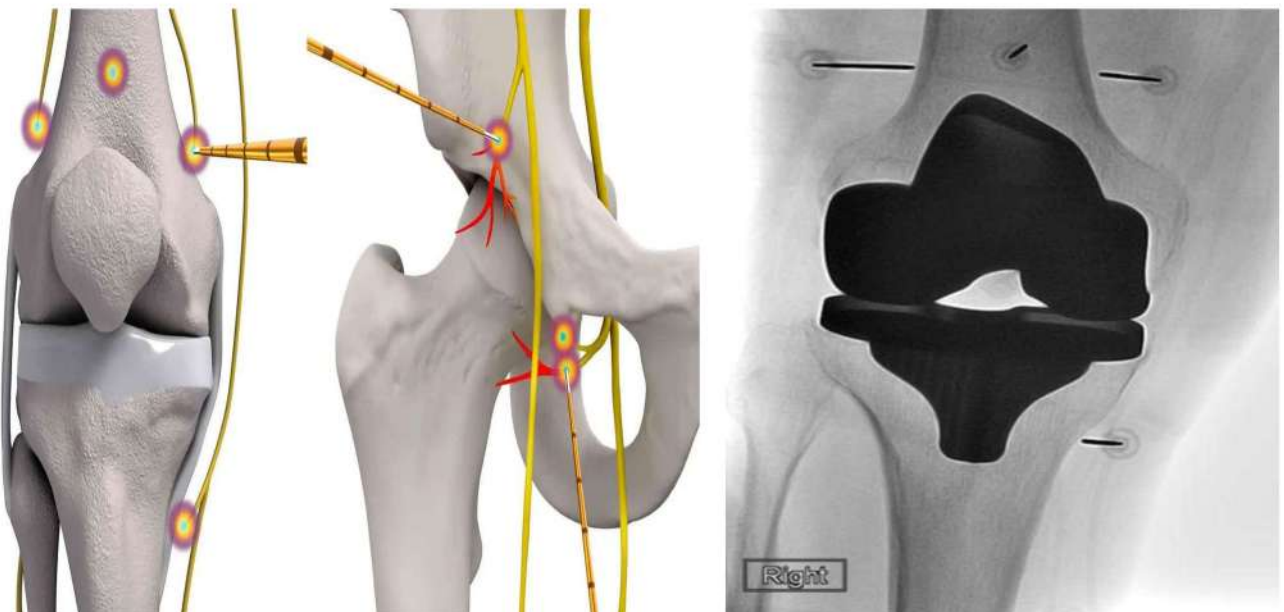


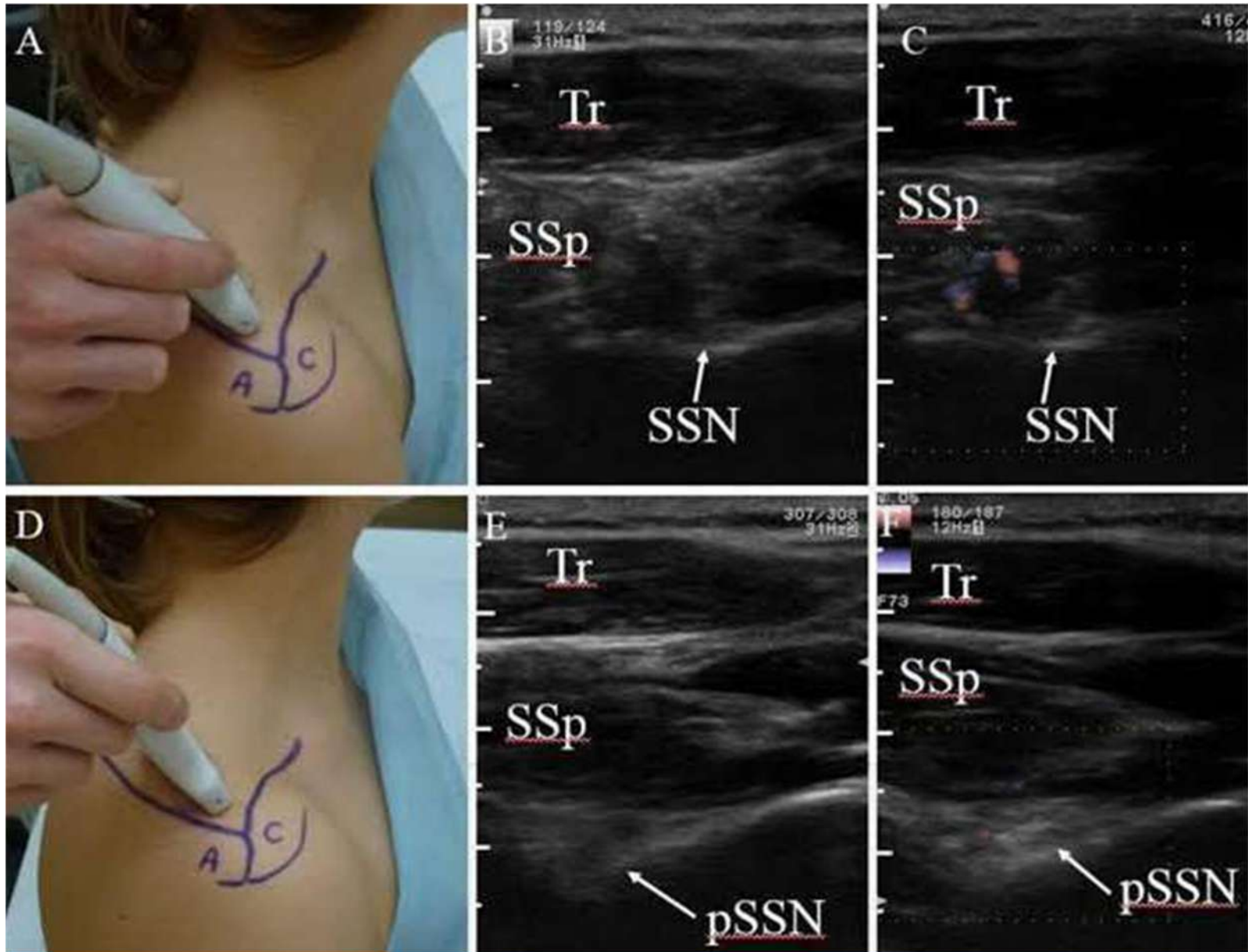
MUSCULOSKELETAL PAIN CONDITIONS

Age-related degenerative changes are a common cause of chronic pain syndrome in various musculoskeletal regions.

KNEE PAIN

- Osteoarthritis of the knee is the most common cause of knee pain.
- Conservative management, such as analgesics and physiotherapy with home exercises, can be effective in mild to moderate cases.
- In resistant cases, interventional pain management techniques, such as genicular nerve radiofrequency denervation, may be used to provide up to an year's pain relief. Genicular Radiofrequency denervation is useful for persistent pain after arthroplasty





SHOULDER PAIN

- Adhesive capsulitis, osteoarthritis, and rotator cuff issues are the common causes of shoulder pain.
- Precision injections around the tendons may be used to manage these conditions without surgery.
- In cases of OA shoulder and adhesive capsulitis, nerve block or pulsed radiofrequency application on the suprascapular nerve (70% of the sensory supply to the shoulder joint) can be attempted to provide pain relief and facilitate rehabilitation.

Other painful musculoskeletal conditions can be effectively managed as part of a multidisciplinary approach.

NEUROPATHIC PAIN CONDITIONS

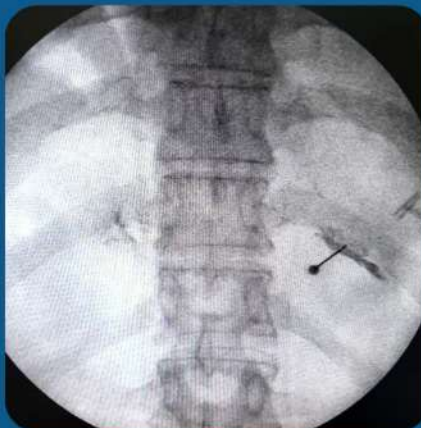
Neuropathic pain is defined as pain resulting from a lesion or disease affecting the somatosensory system. Diagnosis is based on the patient's description of the pain (e.g. burning, shooting, shock-like) and may be confirmed with imaging and neurophysiological studies. Treatment options depend on the type of neuropathic pain and may include pharmacotherapy and interventional techniques.

- Pharmacotherapy of chronic neuropathic pain is an integral part of multimodal pain management

INTERVENTIONAL TECHNIQUES FOR SPECIFIC NEUROPATHIC PAIN CONDITIONS

POST HERPETIC NEURALGIA

- Common in elderly and immunocompromised individuals
- Can be treated with a range of neuropathic pain medications and interventional techniques such as nerve root injections, intercostal nerve blocks, and pulsed radiofrequency and conventional radiofrequency



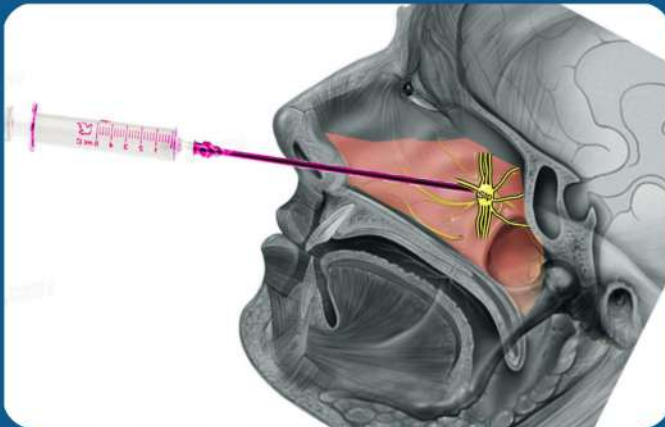
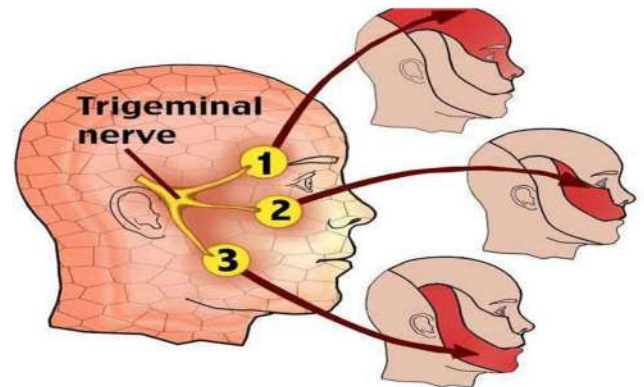
- Intercostal nerve blocks and pulsed radiofrequency applications can be helpful in managing the pain.
- Prevention of herpes zoster is important and can be achieved by vaccinating the susceptible by the zoster vaccine.



- Interventional pain management options, such as radiofrequency denervation of the trigeminal ganglion, may be necessary in cases resistant to medical management.

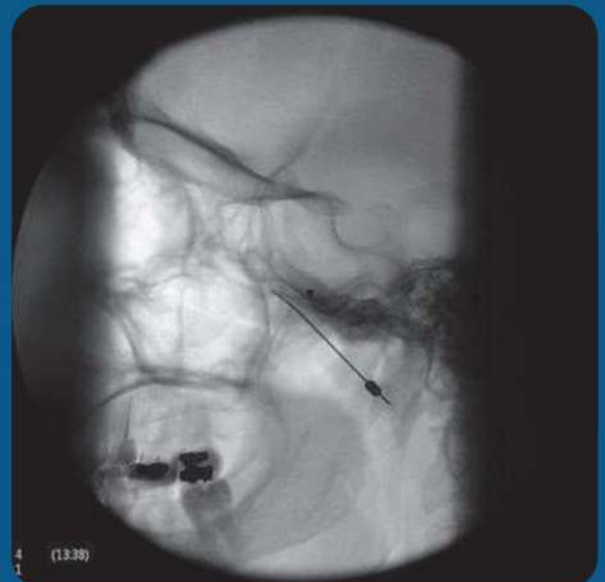
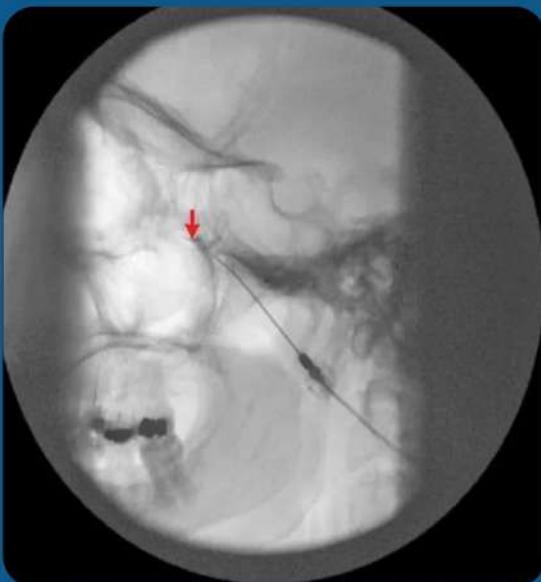
TRIGEMINAL NEURALGIA

- Extreme paroxysmal nerve pain in the face affecting one of the three trigeminal nerve dermatomes.
- Carbamazepine is the first-line drug, with other options available for second-line treatment.



ATYPICAL FACIAL PAIN

- Painful condition without a clear pain generator, difficult to treat.
- Sphenopalatine ganglion block and radiofrequency denervation may provide benefit.



PAINFUL PERIPHERAL NEUROPATHIES

- Multiple causes - such as entrapment, metabolic, nutritional, and toxic.
- Good control of underlying conditions (e.g. diabetes) is the first step in management.
- Neuropathic pain medications, such as pregabalin, gabapentin, amitriptyline, duloxetine, and nortriptyline, may be used in combination.
- Opioids may be used for flare-ups.
- Interventional techniques, such as selective nerve injection or intradermal and subcutaneous Botulinum toxin injections, may be necessary if conservative measures fail.

ABDOMINAL AND PELVIC PAIN SYNDROMES

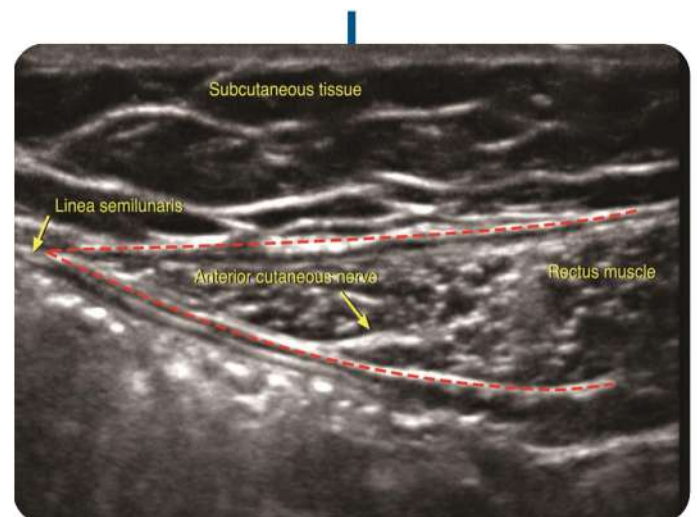
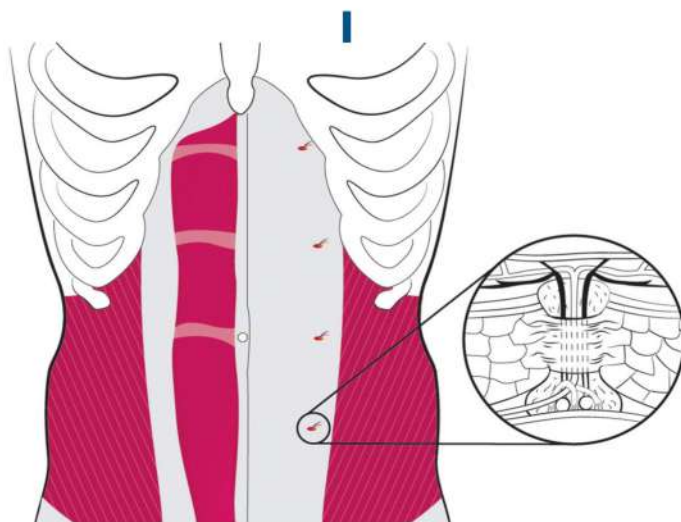
Chronic abdominal pain affects up to 2% of patients.

CAUSES OF CHRONIC ABDOMINAL PAIN

ABDOMINAL WALL:

- Abdominal Cutaneous Nerve Entrapment Syndrome (ACNES)

- Point tenderness at the lateral edge of the rectus muscle, worse with physical activity (e.g. bending forward)
- Ultrasound-guided local anesthetic injection, pulsed radiofrequency application.

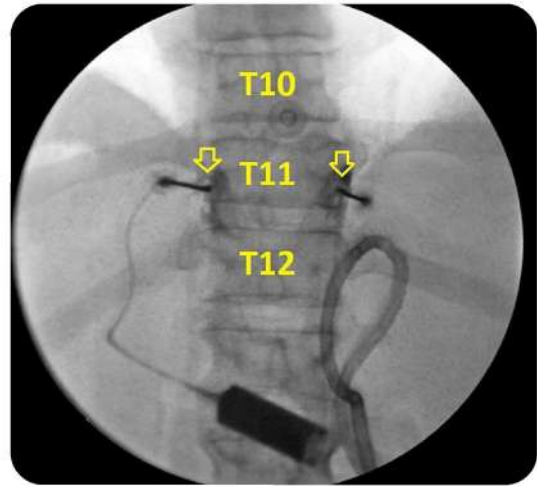
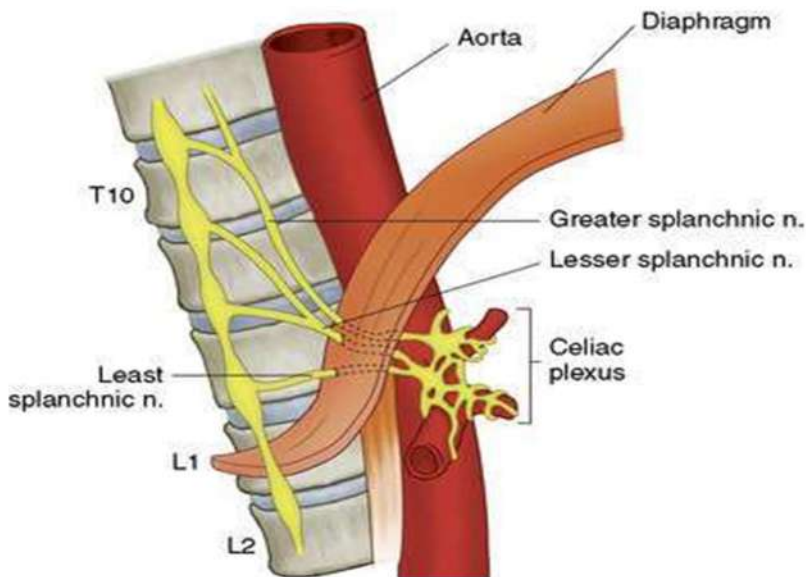


FUNCTIONAL ABDOMINAL PAIN SYNDROMES

- Multidisciplinary approach including pharmacological therapy (e.g. gabapentinoids, antidepressants) and psychological approaches

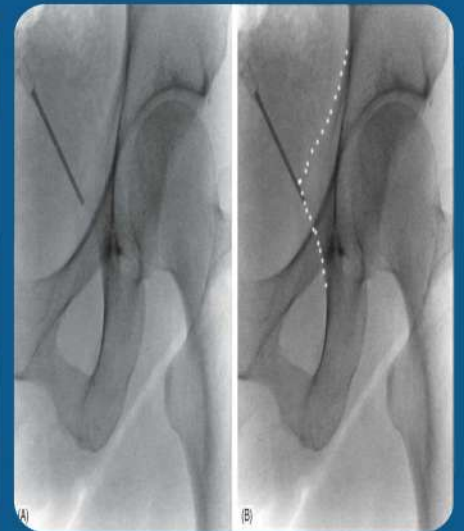
Pancreatic disorders

- Chronic pancreatitis: Debilitating chronic pain condition
- First-line medications: NSAIDs, opioids, anti-neuropathic pain medications
- Celiac plexus neurolysis helpful in reducing pain due to pancreatic cancer
- Thoracic splanchnic radiofrequency ablation/alcohol neurolysis helpful for chronic pancreatitis



Chronic pelvic pain

- Affects males and females, female preponderance
- May indicate serious pathology, but also recognized as a chronic condition without identifiable pathology
- Thorough assessment to rule out red flags and identify etiology
- Interventional pain management has both diagnostic and therapeutic role.



Pudendal nerve block, superior hypogastric plexus, trigger point injections, ganglion impar block, Piriformis injections, psychotherapy and pelvic physiotherapy play important role in long-term management.

FIBROMYALGIA & CENTRAL SENSITIZATION PAIN SYNDROMES



Fibromyalgia is a chronic pain syndrome characterized by widespread pain, fatigue, sleep disturbances, and cognitive symptoms.



Clinical diagnosis with no definitive laboratory tests; important to educate patients about the cause, course, and treatments.



Management requires a multi-disciplinary approach with evidence-based medications (e.g. gabapentoids, amitriptyline, duloxetine, tramadol) and cognitive behavioral therapy.



Other common functional pain syndromes (e.g. temporomandibular dysfunction, irritable bowel syndrome, chronic cardiac chest pain) may be explained by central sensitization to chronic pain, requiring a multi-disciplinary approach for management.

CHRONIC POST-SURGICAL PAIN

- Defined as pain lasting for at least 3 months after surgery, after other causes have been ruled out
- Prevalence: 10% incidence, with 1% of surgical patients suffering from severe pain
- Typically has both nociceptive and neuropathic components.
- Any surgical procedure can lead to chronic pain, but some are more prone than others
- Prevention is key, through minimally invasive surgery and effective postoperative pain management
- Interventional pain management options for chronic post surgical pain.

CANCER PAIN

- Pain is a common symptom among patients with cancer, affecting up to 2/3rd of patients in advanced stages
- Lack of treatment can negatively impact quality of life in physical, psychological, social, and spiritual ways
- Pharmaco-therapy plays a crucial role in management of cancer pain, with analgesics as recommended by the WHO ladder being capable of controlling 75% of cancer pain
- Morphine is the most widely used opioid for cancer pain treatment and can be administered in oral or injectable forms
- Interventional pain management techniques are used when conventional analgesics fail or cause intolerable side effects.

Some procedures include:

- Neurolytic blocks (e.g. celiac plexus for pancreatic pain)
- Neuraxial analgesia techniques like tunneled catheters, intrathecal tunnelled catheters, or implanted intrathecal catheter/pump systems.

55%

OF PATIENTS UNDERGOING
TREATMENT FOR CANCER
EXPERIENCE PAIN

66%

OF PATIENTS WHO HAVE
ADVANCED METASTATIC OR
TERMINAL CANCER EXPERIENCE
PAIN

COMPLEX REGIONAL PAIN SYNDROME (CRPS)

- CRPS is a clinical disorder characterized by severe continuous pain in an extremity
- Characterized by sensory (hyperesthesia and allodynia), motor (decreased range of motion and motor dysfunction), vasomotor (temperature and color asymmetry), and sudomotor (edema and sweating changes) symptoms
- Pain is regionally restricted and disproportionate to inciting event
- Mechanisms of CRPS are not fully understood, but both central and peripheral mechanisms are believed to play a role
- Management includes education, analgesia (pharmacotherapy and interventional pain management techniques), rehabilitation, and psychotherapy
- Sympathetic blocks can help with rehabilitation, while spinal cord stimulators may be considered for long term analgesia and rehabilitation.

ROLE OF PSYCHOLOGICAL INTERVENTIONS IN CHRONIC PAIN

When treating chronic pain, a common goal is to provide a lasting and meaningful reduction in suffering with concomitant improvements in overall functioning and health-related quality of life.

Given the complex nature of chronic pain and the goals for treating it, it is not surprising that any one treatment by itself is rarely adequate to achieve these objectives. Rather, chronic pain lends itself to a multimodal treatment approach.

Chronic pain is commonly complicated by sleep interference, mood disturbances, behavioural changes and poor coping strategies.

Currently Cognitive Behavioral Therapy (CBT) is the first-line psychological treatment for chronic pain. CBT focuses on patient coping abilities, adaption in ADLs and self-management. It teaches the patient skills such as relaxation, managing activities efficiently along with identifying and eliminating negative assumptions, fear avoidance and catastrophizing thoughts.

Acceptance and commitment therapy (ACT) is a process-based therapy that encourages openness, awareness, and engagement through a wide range of methods.

Where there are comorbidities, eclectic therapies are used to address the specific psychological needs of the patient. Where there is history of substance abuse or abuse of pain killers, Motivational interviewing (MI) and Motivational Enhancement Therapy (MET) are found to be beneficial.

Often patients with chronic pain have strained relationships. One should consider family therapy in these cases.



PAIN CLINIC DEALS WITH ASSESSING AND MANAGING CHRONIC PAIN.

ALL FACETS OF CHRONIC PAIN; BIOLOGICAL, PSYCHOLOGICAL AND SOCIAL ASPECTS ARE ASSESSED AND ADDRESSED

PAIN CLINIC



Dr. Sudhindra Dharmavaram

MBBS, MD, FFPMRCA (UK)
Clinical Lead and Consultant -Pain Medicine

Dr. Sudhindra Dharmavaram leads the Pain Medicine and Interventional Pain Management Services at the Pain Clinic at Bhagwan Mahaveer Jain Hospital. At the core of his expertise is a detailed and multidimensional assessment of chronic pain and executing interventional pain management techniques. Holistic and multidisciplinary pain management strategies for chronic pain conditions - musculoskeletal, neuropathic and cancer pain conditions- are his forte.

Being a native of Bengaluru, he chose to pursue his MBBS at Bangalore Medical College. After his graduation in the speciality of Anaesthesia from Maulana Azad Medical College, New Delhi, he developed a keen interest in pain medicine. He undertook his Advanced Pain Training (APT) at Aberdeen, United Kingdom and was awarded the Fellowship of the Faculty of Pain Medicine of the Royal College of Anaesthetists (FFPMRCA) after a two-year tenure in this speciality. Apart from pain medicine, he is a doting father, a movie buff and loves playing cricket at an amateur level.



Dr Lakshmi B K

MBBS, MD(ANAES) KEM, Mumbai
Consultant -Pain Medicine

Dr. Lakshmi BK is an anaesthetist and pain management specialist at Bhagwan Mahaveer Jain hospital. She did her under-graduation from Bangalore medical college & research institute and post-graduation in anaesthesia from the prestigious Seth GS Medical College & KEM Hospital, Mumbai. Dr Lakshmi is a pain medicine and interventional pain management consultant and is well-versed in the assessment and management of chronic pain conditions

CONTACT US PAIN CLINIC

BHAGWAN MAHAVEER JAIN HOSPITAL

MILLERS ROAD, VASANTHAGAR, BENGALURU, KARNATAKA INDIA 560052

For Appointments: 9686607775, 9945953030

For Emergency Care: +91 9980094111

painclinic.jainhospital.com www.painclinicbmjh.com

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