PERCUTANEOUS DISC TREATMENT

PAIRS Webinar

Title: PERCUTANEOUS DISC TREATMENT
Format: Online Course _Zoom Webinar
Date: July 25, 2026
Time: 8:00 PM KSA (GMT +3)
Duration: 60–75 minutes
Moderators: Salem Bauones & Dimitrios Filippiadis

Introduction

This webinar addresses percutaneous disc treatment as a minimally invasive strategy for managing discogenic low back pain. It focuses on patient selection, procedural techniques, and clinical outcomes, providing a practical and evidence-based perspective for daily interventional practice.

Objectives

- Review the **pathophysiology and imaging features** of discogenic pain
- Define **appropriate patient selection criteria**
- Present **current percutaneous treatment techniques and indications**
- Outline **key procedural steps and safety considerations**
- Assess **clinical outcomes and potential complications**

Key Learning Points

- Accurate differentiation between **discogenic and radicular pain** is essential for appropriate intervention
- MRI findings, including **HIZ and Modic changes**, guide diagnosis and selection
- Technique choice should be **tailored to pathology and disease stage**
- Procedural success relies on **precision and image guidance**
- Understanding limitations and risks is critical for **optimal patient outcomes**

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Faculty:

Dr. Salem Bauones: Consultant of Musculoskeletal Imaging and Non-Vascular Interventional Radiology, King Fahad Medical City in Riyadh, Saudi Arabia
Dr. Stefano Marcia: Chief of Radiology at SS. Trinità Hospital in Cagliari and Director of the Department of Services at ASL Cagliari, Italy
Dr. Dimitrios Filippiadis: Consultant diagnostic and interventional radiology at the National and Kapodistrian University of Athens, Greece

Agenda:

Lecture 1 (10min): Discogenic Pain & Patient Selection_ Dr. Salem Bauones

Learning Objectives:
- Understand discogenic pain mechanisms
- Identify appropriate candidates
- Interpret MRI findings

Key Content:
- Disc anatomy: nucleus pulposus vs annulus fibrosus
- Pain generators: annular tear, inflammatory mediators, nerve ingrowth
- MRI: High-Intensity Zone (HIZ), Modic changes
- Selection criteria:
  - Chronic axial low back pain (>6 months)
  - Failed conservative therapy
  - Contained disc herniation

Speaker Notes:
Emphasize differentiation between discogenic and radicular pain to avoid inappropriate interventions.

Lecture 2(20min): Techniques of Percutaneous Disc Treatment _Dr. Stefano Marcia

Learning Objectives:
- Understand available techniques
- Match technique to pathology

Technique	Mechanism	Indication	Limitations
Nucleoplasty	Coblation-based decompression	Contained herniation	Limited effect in large hernias
IDET	Thermal annulus modulation	Discogenic pain	Variable outcomes
PLDD	Laser decompression	Small herniation	Thermal risk
Biologics	Regeneration	Early degeneration	Limited evidence

Speaker Notes:
Highlight evidence variability and proper case selection.

Lecture 3(15min): Step-by-Step Procedure (How I Do It) _ Dr. Dimitrios Filippiadis

Procedure Steps:
1. Patient positioning (prone)
2. Planning trajectory (safe triangle)
3. Local anesthesia ± sedation
4. Needle insertion under CT/fluoroscopy
5. Confirmation (discography optional)
6. Treatment delivery

Tips & Tricks:
- Prefer CT guidance in complex anatomy
- Maintain central disc positioning
- Avoid excessive thermal delivery

Speaker Notes:
Stress precision and safety during needle placement.

Lecture 4(10min): Outcomes, Complications & Future Directions_ Dr. Stefano Marcia

Outcomes:
- Pain reduction (VAS)
- Functional improvement (ODI)

Complications:
- Discitis
- Nerve injury
- Recurrence

Future Directions:
- PRP and stem cell therapy
- AI-assisted planning
- Combination therapies

Speaker Notes:
Discuss realistic expectations and patient counseling.

Target Audience

- Interventional radiologists
- IR fellows and trainees
- Spine and pain management specialists
- Allied musculoskeletal specialists interested in IR techniques

Expected Outcomes

- Enhanced ability to diagnose and select patients appropriately
- Improved understanding of techniques and procedural strategies
- Greater awareness of clinical outcomes and risk management
- Support for adoption of evidence-based minimally invasive therapies