



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT OF RADIOGRAPHY AND IMAGING TECHNOLOGY

COURSE NAME : CONTRAST AND SPECIAL RADIOGRAPHY PROCEDURES

II YEAR

UNIT : 4

TOPIC : DISCOGRAPHY

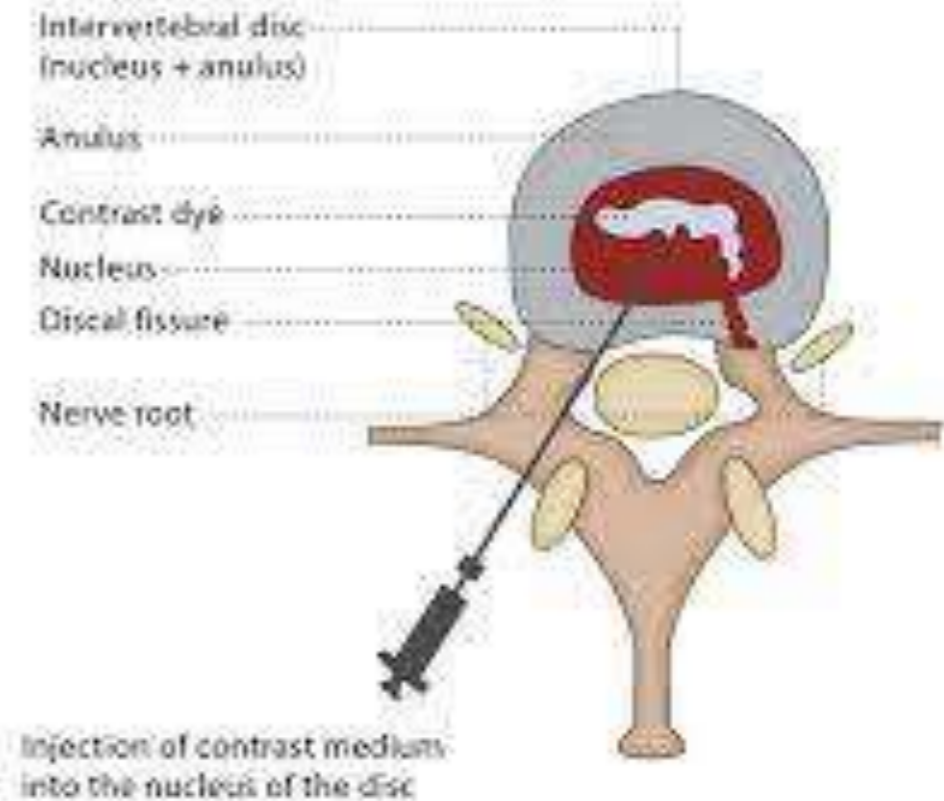


INTRODUCTION



It is a radiographic examination of an intervertebral disc of specific vertebrae. The radio-opaque contrast media is injected into the disc to diagnose the structural and functional abnormalities of the intervertebral disc. It is similar to a myelogram. The discography examination provides information on the torn disc that may be caused back pain.

Provocative discography





INDICATION



- Lower back pain.
- To evaluate intervertebral disc anatomy.
- Severe pain in the lower limb.





CONTRAINDICATION



- Hypersensitivity to Iodine.
- Suspected pregnancy.





PATIENT PREPARATION



- The patient is asked to take a low residue diet for two days prior to the examination and drink clear liquids the day before the examination.
- Fasting may be employed for 6-8 hours. Ask the patient not to eat or drink after midnight.
- Pre-procedure investigations such as x-ray reports, blood urea, serum creatinine, blood sugar report must be reviewed by radiologist and history of previous medication and the bleeding disorder also is taken by the radiologist.

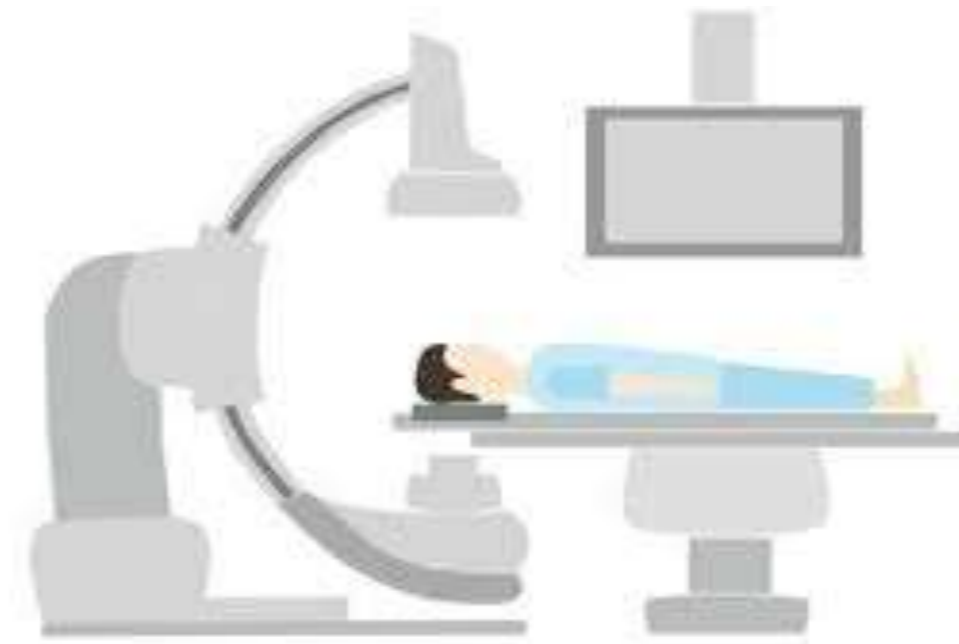




EQUIPMENT



- Fluoroscopic unit and spot film device.
- 22 G 3.5 –inch spinal needle.
- Iodinated contrast media nonionic 10 ml.
- Antiseptic solution.
- Syringe.
- Gloves.
- Sterile towel.
- Gauze.
- Lead apron.



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PROCEDURE



- On the day of the examination, the technologist should describe the whole procedure to the patient and obtain written consent from the patient, for permission of procedure.
- The patient is asked to remove clothing and wear a hospital gown.
- An intravenous line is inserted into the patient arm. If necessary, sedative medication is given through line to make the patient relax.
- The patient is placed in the prone position with the pillow under the abdomen to flatten the lumbar lordosis.
- Afterward, the antiseptic solution is applied to the skin of the lumbar spine region and local anesthesia is given at the examination site. This procedure should be done in strict sterile technique to prevent discitis (infection in the intervertebral disc).
- After that, the insertion points have been marked.



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- The patient must be awakened and able to reports the pain and the sensation during the needle insertion because a healthy disc will not cause pain, but torn disc may. This will help the radiologist to determine the disc, which is responsible for the pain.
- Then the neurologist inserts a 22 gauge 3.5 -inch spinal needle through the margin of the disc under fluoroscopic guidance.
- Whenever the tip of the needle is reached at the annulus, then the needle is gently advanced at the center of the disc. After insertion of the needle, the stylet is removed. Then 1 to 10 ml, iodinated radio-opaque contrast media is injected at the rate of 5 ml per second.
- During the contrast administration, the radiologist asks the questions to patient about sensation and the pain.



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- After administration of contrast media, the radiographs are taken in different positions like **posteroanterior, lateral** and **oblique positions** through the spot film device.
- After completion of radiographs, the needle is removed and the puncture site is sealed with the antiseptic sterile gauze.
- Subsequently, the second set of the radiograph may be taken in **anterior-posterior, lateral** and in an **oblique position**.

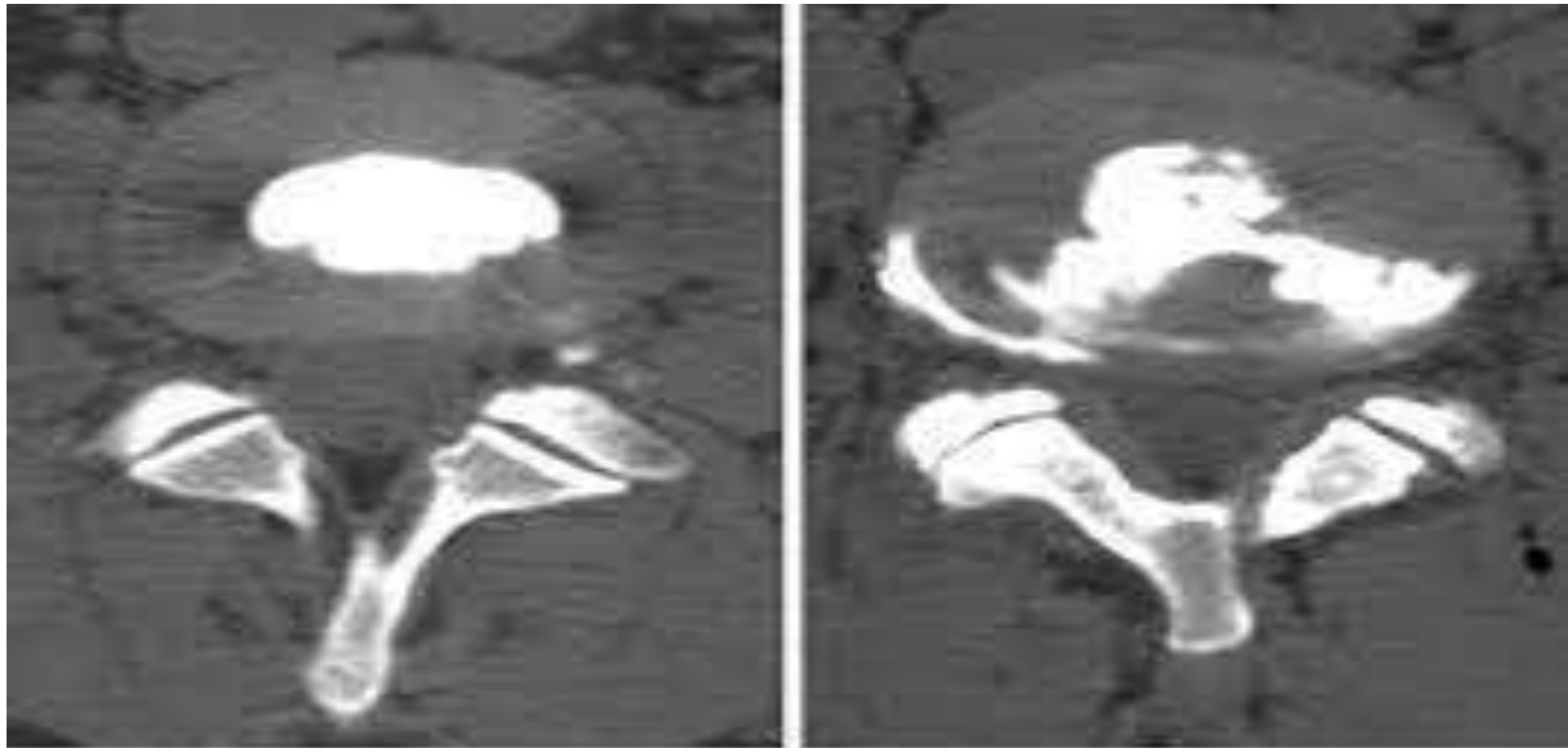


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COMPLICATION



- Infection in the vertebral disc.
- Pain at the puncture site.
- Loss of sensation at the lower limb.





AFTERCARE



- The patient should be kept under observation. The vital sign must be monitored.
- If the vital signs are normal, then the patient is allowed to leave the examination room.







THANK YOU