DACRYOCYSTOGRAM

Primary Indication: A simple noninvasive test for defining the patency of the lacrimal duct.

Radiopharmaceutical: Tc99m pertechnetate

Dose: 200 µCi per eye; this amount can be prepared by diluting 10 mCi of Tc99m pertechnetate to 0.5 ml with normal saline solution; 10 drops in each eye delivers approximately 200 µCi with an eye dropper.

Patient Preparation: None

Equipment Setup: Collimator: Pinhole
Energy Window: 140 keV with a 20 % window

Procedure: 1. Place the radioactive material in the form of drops, on the lower eyelid.
2. Quickly position the patient upright at a distance of 1.5 to 6.0 cm from collimator.
Distance depends on whether one or both eyes are to be imaged.
3. Perform 25,000 count images at the following times:
Immediately, 5, 10, and 15 minutes after administration of the dose. Delayed images may be obtained, but lack of drainage 15 minutes after dose administration indicates blockage of the drainage system.

Interpretation of Images:
Normal images should show activity in the area of the nose in 10 to 15 minutes. The level of obstruction can be well demonstrated on images.