



Seizure/Dementia: Neurolite (ECD) (bicisate Tc-99m)

INDICATIONS:

- Seizure localization, dementia

CONTRAINDICATION:

- None.

SUPPLIED AND STORAGE:

- Unit dose room temperature.

PATIENT PREPARATION:

- Patients should be instructed to avoid caffeine, alcohol or other drugs known to affect cerebral blood flow (CBF). Patients should be well hydrated prior to injection
- Ictal: Seizure meds are withheld until seizure.

DOSE AND ADMINISTRATION:

- 15-30 mCi.
- Sensorial and cognitive stimuli must be kept at a minimum level during tracer injection and uptake.
- Injection in a quiet room and no interaction with patients at this time is desirable.
- Place intravenous access at least 10 min prior to injection to permit accommodation.
- Instruct the patient not to speak or read.
- Have no interaction with the patient prior to, during or up to 5 min post-injection.
- Ictal: Injection is made as soon as seizure begins as identified by EEG.

UPTAKE TIME:

- Approximately 45 min delay from injection to imaging for best image quality.

ACQUISITION PARAMETERS:

- Keeping the head at flexion helps to reduce the radius of rotation.
- Lowering the chin to the chest helps to include the entire cerebellum within the field of view and allows a better reorientation plane for oblique slices during reconstruction.
- SPECT with high resolution collimators: 128 x 128 matrix
- ❖ The rapid urinary excretion of ECD results in lower dosimetry, therefore high doses can be administered. The use of higher doses, together with the higher gray-matter-to-white-matter ratio, contributes to the better image quality obtained with ECD in comparison with HMPAO.
- ❖ If sedation is required, it should be given after injection of the radiopharmaceutical, when possible.