

^{99m}Tc tetrofosmin

^{99m}Tc tetrofosmin (Myoview®)

1. Indications

Imaging of myocardial perfusion:

^{99m}Tc-tetrofosmin is a myocardial perfusion agent used as an aid in diagnosis and localization of myocardial ischemia and / or infarction. The function of the left ventricle (left ventricular ejection fraction and wall motion) can be evaluated by the use of SPECT with ECG triggering in patients who undergo myocardial perfusion scintigraphy.

Imaging of breast tumours:

It is used as an aid to initial assessments (eg palpation, mammography, or alternative imaging modalities and / or cytology) in the characterization of malignancy of suspected breast lesions where other recommended tests could offer no answer.

2. Preparation

Approved product, see summary of product characteristics (SmPC).

3. Quality control

Approved product, see summary of product characteristics (SmPC) and the European Pharmacopeia.

4. Interactions

Interactions between ^{99m}Tc tetrofosmin and medication have not been studied.

Interactions are possible in case of pharmacological stress testing.

Medicines that affect myocardial function and/or circulation (such as beta-blockers, calcium channel blockers and nitrates) may cause false negative results in the diagnosis of coronary artery disease.

5. Adverse events

Current adverse events reported or observed after the use of ^{99m}Tc-tetrofosmin are very rare (less than 1:10.000).

Immunological: face edema, hypersensitivity, allergic reaction, anaphylactic reactions

Neurological: headache, dizziness, metallic taste, odor and taste disturbance.

Vascular: hot flushes, low blood pressure.

Respiratory: dyspnoea

Gastrointestinal: vomiting, nausea, burning mouth

Skin: Urticaria, itching, erythematous rash.

Other: feeling of warmth, increase of white blood cells.

6. Biodistribution & pharmacokinetics

After an intravenous injection ^{99m}Tc-tetrofosmin is rapidly removed from the blood; 10 min after the injection, the blood contains less than 5% of the administered activity. Clearance of activity from background tissue of the lungs and liver is quick and after exertion the

activity is reduced in these organs with increased secretion in the skeletal muscles. On average 66% of the injected activity is excreted within 48 h after injection with approximately 40% in urine and 26% in feces.

The uptake in the myocardium is rapid. Within 15 min to 4 h after administration a maximum of about 1,2% of the injected dose is achieved with sufficient retention to image the myocardium with planar or SPECT techniques.

7. Stability

The product has a shelf-life of about 35 weeks. After reconstitution the product is stable for about 12 h and has to be stored at 2-8°C.

8. Literature

- SmPC Tc-99m-Tetrofosmin, MYOVIEW 230microgram.