文 献 紹 介

accurate, reproducible results.

32190

Dynamic Esophageal scintigraphy.

Reilley JJ, et al., J. of Nuclear Med. Technology, 10(2), 71-74, (1982).

Summary

Esophageal scintigraphy was developed in order to quantitatively evaluate esophageal transit in patients with a variety of esophageal disorders. The study is performed with orally administered technetium-99m sulfur colloid in water, using a gamma camera on-line to a digital computer. Esophageal transit is expressed as the percent emptying for each of the first 15-sec intervals for 10 min after an initial swallow and at 15-sec intervals after serial swallow. Esophageal transit is significantly decreased in patients with motor disorders of the esophagus, compared to normal controls. In patients with reflux esophagitis, esophageal transit was abnormal when the reflux disease was accompanied by abnormal motor function. The technique we describe is the first quantitative test of esophageal function; it is a useful, sensitive, scintigraphic technique for evaluation of esophageal transit.

32190, 34130

Detection of one-millimeter motion under conditions simulating equilibrium blood-pool scintigraphy.

Chapman DR, et al., J. of Nuclear Med. Technology, 23(1), 42-47, (1982).

Summary

The widespread clinical application of multiple-gated equilibrium cardiac blood-pool scintigraphy for qualitative assessment of regional left-ventricular wall motion has raised questions regarding the limits of detectable motion. Under conditions simulating some of the elements of cardiac motion, and using variables associated with multiple-gated equilibrium scintigraphy, we have studied these limits both theoretically and experimentally. The theory of detecting simple edge motion as a function of motion magnitude, system resolution, and counts per pixel is studied both conceptually and by statistical analysis using a line-source activity distribution represented as Gaussian. The experiment involves

six independent observers in the qualitative evaluation of the presence and location of edge motion of two cylindrical activity distributions as displayed by a computer.

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簡便なヨード制限法による甲状腺 ^{123}I 摂取率検査. 鰐部春松, 他, 日本核医学会誌, 19(2), 297-304, (1982).

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A position to Pelineate pelvic radionuclide uptake. Giga, JL, et al., J. of Nuclear Med. Technology, 10(1), 33-35, (1982).

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HBs 抗原の定量的測定に関する基礎的検討.

角田隆巳, 他, 日本核医学会誌, 19(5), 831-836, (1982).

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ダイナボット社・フェリチン RIA キットの基礎的検討.

小川克仁, 他, 日本核医学会誌, 19(3), 487-492, (1982).

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ECT イメージの立体表示.

湊小太郎, 他, 医用電子と生体工学, 20(2), 109-1126 (1982).

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シングルフォトン ECT.

前田敏男, 他, 癌の臨床, 28(6), 582-586, (1982).

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Special characteristics and potential for dynamic function studies with PET.

Ter-Pogossian MM, Seminars in Nuclear Med., 11(1), 13-23, (1981).

Summary

The possibility of utilizing the PET approach to the investigation of dynamic physiologic processes has not been limited so far by radiation exposure to the patient but rather considerations by the technical limitations of PET imaging devices. In the past few years, several PET designs have been optimized specifically for fast dynamic studies. The most recent of these designs incorporates cesium fluoride detectors to achieve high counting rate capabilities. At this time, the value of fast dynamic