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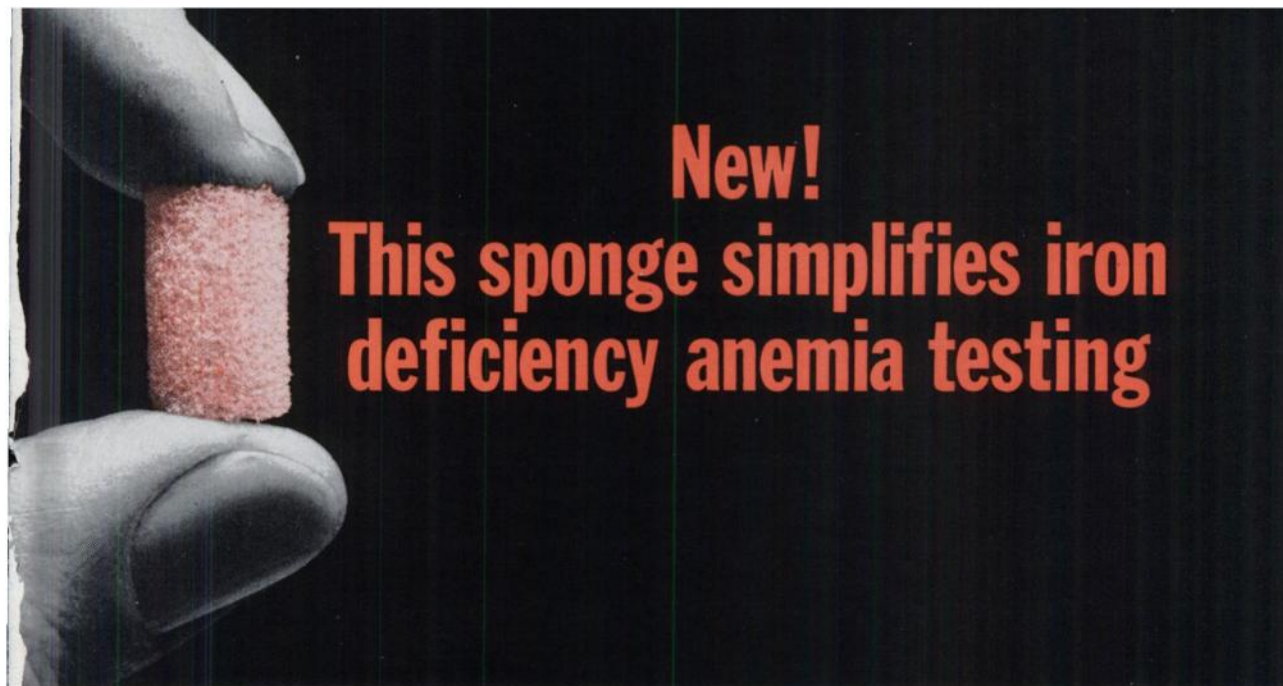
McAdams* reported that "The resin sponge (Triosorb) technique is superior to the erythrocyte method for performing the I^{131} T3 test in terms of simplicity, convenience and elimination of errors characteristic of the erythrocyte procedure."

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*McAdams, G. B. and Reinfrank, R. F., Jnl. Nuclear Med., 5:112, Feb., 1964.

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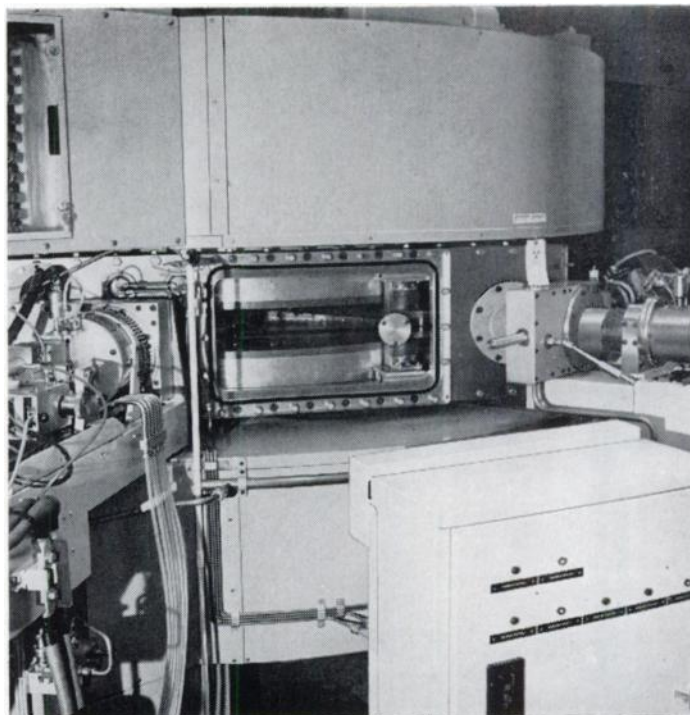
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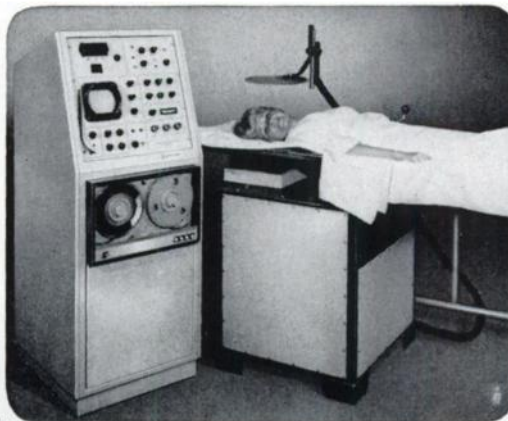
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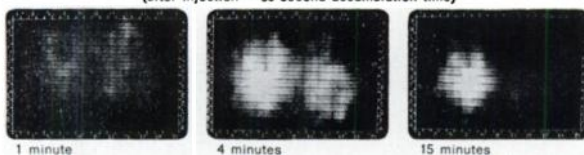
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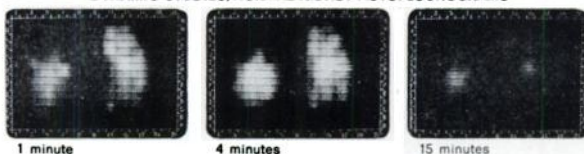
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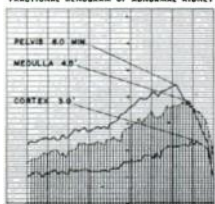
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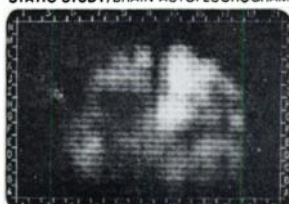
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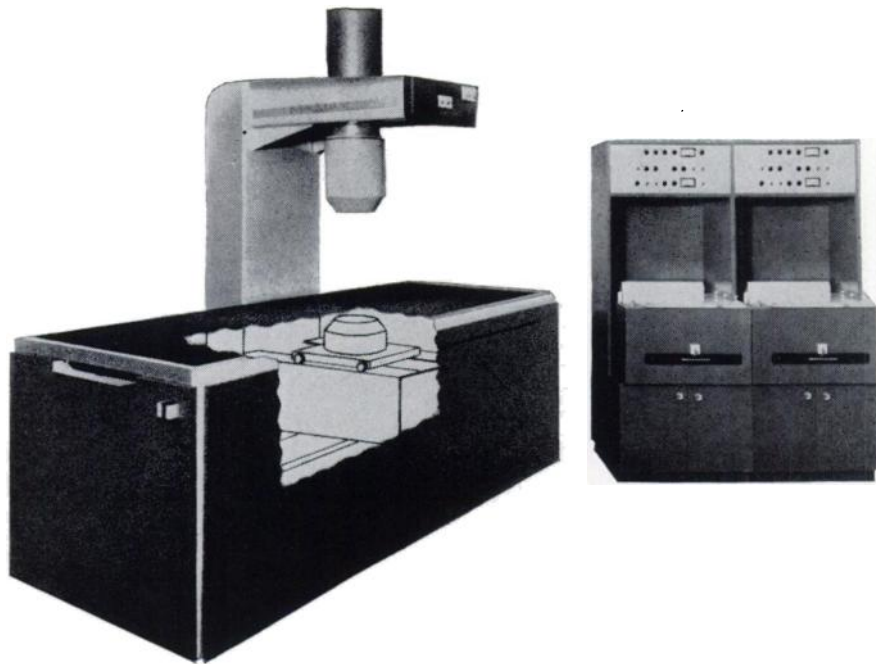
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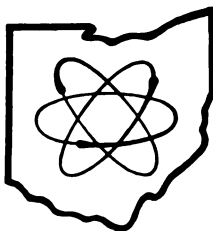
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**"...[pulmonary embolism] may exist in a grave form
for a considerable time without objective signs
being present on physical examination
or routine chest films."¹**

Pulmonary embolism is a mimic. Because its symptoms resemble those of other cardiorespiratory diseases—particularly myocardial infarction^{2,3} and pneumonia⁴—investigators have long sought simple and certain methods of diagnosing it.

Many diagnostic clues—but often no clinical picture

Until a few years ago diagnosis depended primarily on the clinical history, physical findings, chest films, electrocardiograms, angiography, and pulmonary function studies. Each of these was helpful. Sometimes not even *all* of them were conclusive.

Surgery, prolonged immobilization, metastatic carcinoma and trauma often precede pulmonary embolism—but are not necessarily followed by it. Pain, dyspnea, hemoptysis may signal pulmonary embolism—but they aren't necessarily peculiar to it. The electrocardiogram may be normal in spite of it.⁵ And there is no pathognomonic radiographic picture of pulmonary embolism.⁵

To be clinically valuable, however, a new diagnostic test should meet two criteria:

1. it should be correlated with known pathology; i.e., it should be carefully compared with other diagnostic procedures;
2. it should offer information not attainable as easily or as safely by accepted tests.⁶

Pulmonary arteriography meets the first criterion and is a most reliable diagnostic tool. It is, however, a time-consuming procedure and one that requires experienced personnel.²

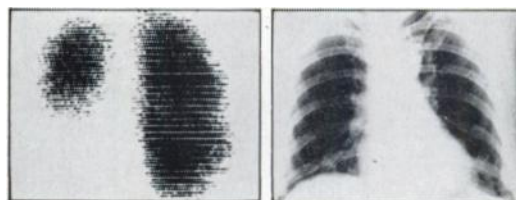
"...lung scintiscanning can detect an obstruction of the pulmonary circulation as soon as it is established."⁷

Not only is the diagnostic procedure of lung scanning both safe and easy,² but there is information that is not attainable on chest films. "...it appears that the lung scan can point to the site of the embolic lesions before signs of lung infarction are recognizable on plain chest films."¹

The scan and the x-ray shown confirm this statement.* The photoscan of this female patient, aged 58, was taken August 13, 1965 with Albumotope-LS (Squibb Aggregated Radioiodinated [¹³¹I] Albumin [Human]). Pulmonary emboli are clearly evident. The x-ray, taken the same day, shows no radiographic evidence of pulmonary emboli.

Lung scanning meets both criteria for a clinically valuable diagnostic test. Findings are correlated with pulmonary function studies, angiography, pathology and the clinical state of the patient. And, scanning with Albumotope-LS has been

*Illustrations furnished through the courtesy of George V. Taplin, M.D., Harbor General Hospital, Torrance, California.



proven to be "simple, rapid, and safe in the diagnosis, localization and ultimate fate of pulmonary emboli."² But the lung scan should not be relied upon as the only diagnostic procedure in the diagnosis of pulmonary embolism.¹

Dosage and Scanning Procedure: Recommended scan doses of 150 to 300 microcuries of Albumotope-LS (Squibb Aggregated Radioiodinated [¹³¹I] Albumin [Human]) depending on the instrumentation available and the technics employed. Scanning can immediately follow administration of slow intravenous injection or be delayed up to 1 to 1½ hours depending on preferred technic.

Side Effects and Precautions: Extensive clinical use of Albumotope-LS has not borne out the hypothetical possibility that particles of large size might induce deleterious cardiovascular or cerebrovascular effects. No antigenic properties have been specifically related to this product; one patient with a known history of angioneurotic edema, who had been given Lugol's solution in conjunction with aggregated radioalbumin similar to Albumotope-LS, developed urticaria.

Radioisotopes should not be used in pregnant women, nursing mothers, or in patients under 18 years of age unless indications are very exceptional.

Available: As a sterile, non-pyrogenic, aqueous suspension. Each cc. contains approximately 1 mg. aggregated human serum albumin labeled with 800-1500 microcuries of iodine-131 at time of manufacture. Also contains 0.9% benzyl alcohol as a preservative.

References: 1. Haynie, T. P., et al.: J. Nucl. Med. 6:613, 1965. 2. Sabiston, D.C., Jr., and Wagner, N.H.: Ann. Surg. 160:575, 1964. 3. Cooley, R.N., and Donner M.W.: Am. J. M. Sc. 247:601, 1964. 4. Wagner, H.N., et al.: New England J. Med. 271:377, 1964. 5. Hinshaw, H.C., and Garland, L.H.: Diseases of the Chest, ed. 2, Philadelphia, W. B. Saunders Co., 1963, pp. 438-9. 6. Dworkin, H.J. et al.: Michigan Med. 64:829, 1965. 7. Quinn, J.L., et al.: Radiology 82:315, 1964. 8. Taplin, G.V., et al.: Health Physics 10:1219, 1964.

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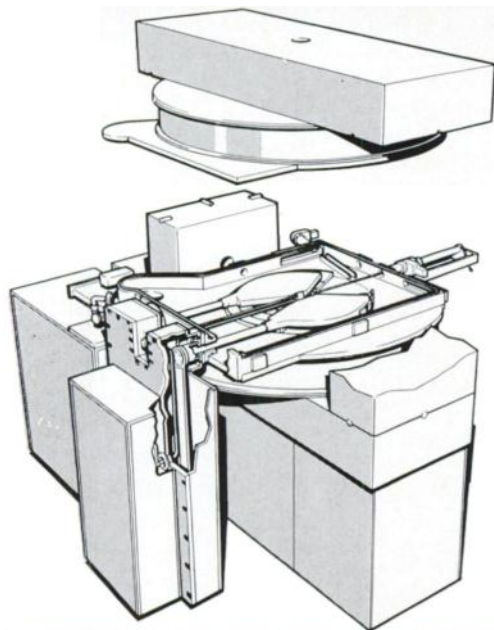
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Selection of the preliminary note shall be on a competitive basis for each issue. One will be selected after careful screening and review by the Editors. Those not selected will be returned immediately to the authors without criticism. Authors may resubmit a rejected or revised preliminary note for consideration for publication in a later issue. The subject material of all rejected manuscripts will be considered confidential.

The text of the manuscript should not exceed 1200 words. Either two illustrations, two tables, or one illustration and one table will be permitted. An additional 400 words of text may be submitted if no tables or illustrations are required. Only the minimum number of references should be cited.

Manuscripts should be mailed to the Editor, Dr. George E. Thoma, St. Louis University Medical Center, 1402 South Grand Blvd., St. Louis, Missouri 63104. They must be received before the first day of the month preceding the publication month of the next issue, e.g., preliminary notes to be considered for the October 1967 issue must be in the hands of the Editor before September 1, 1967.

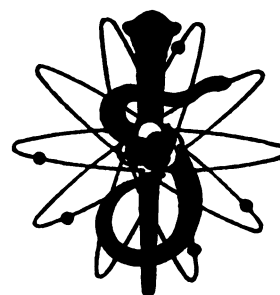
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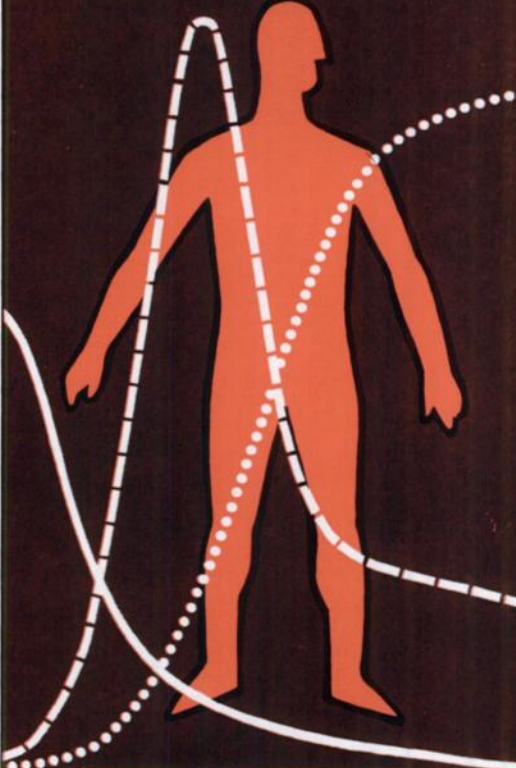
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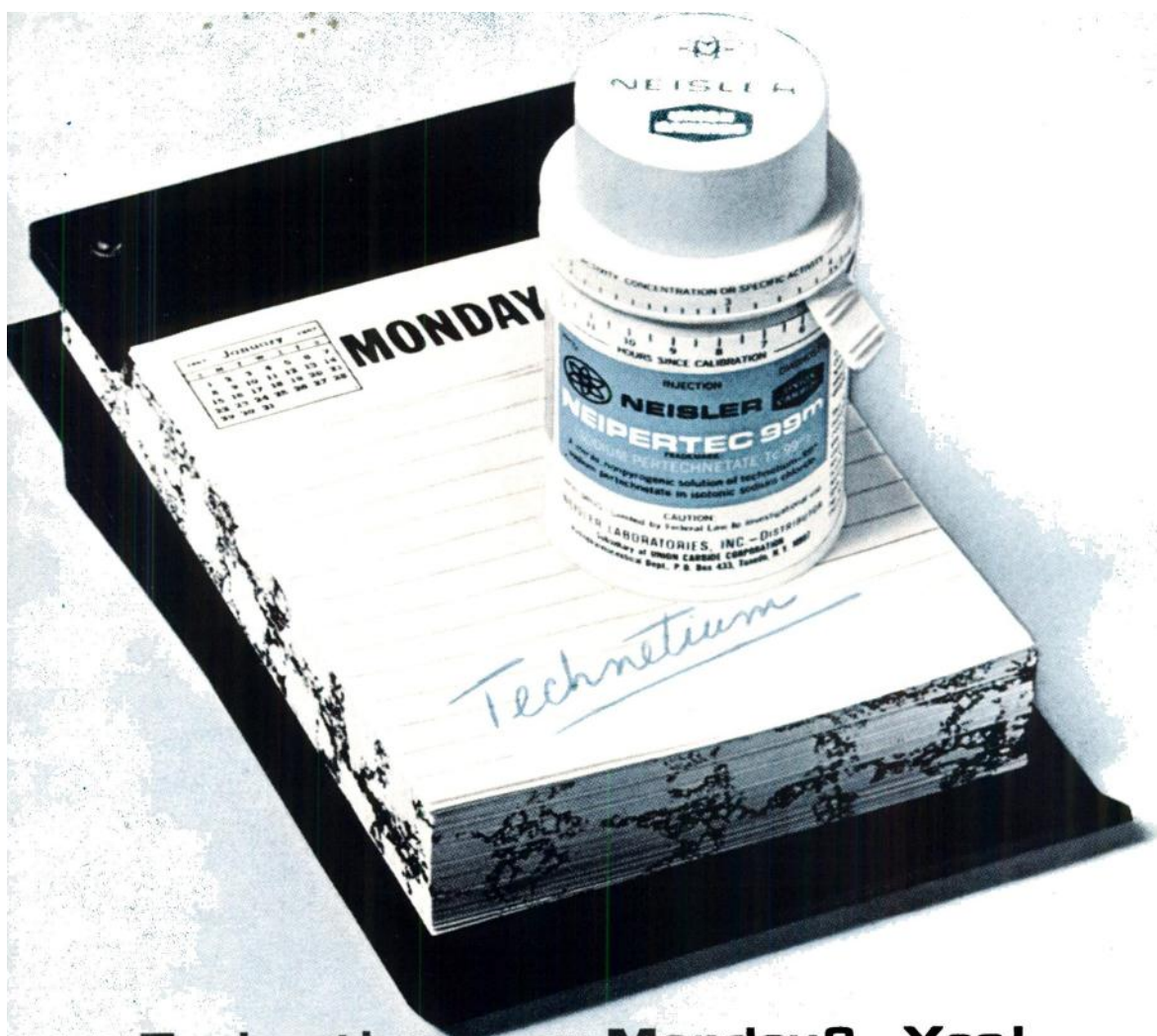
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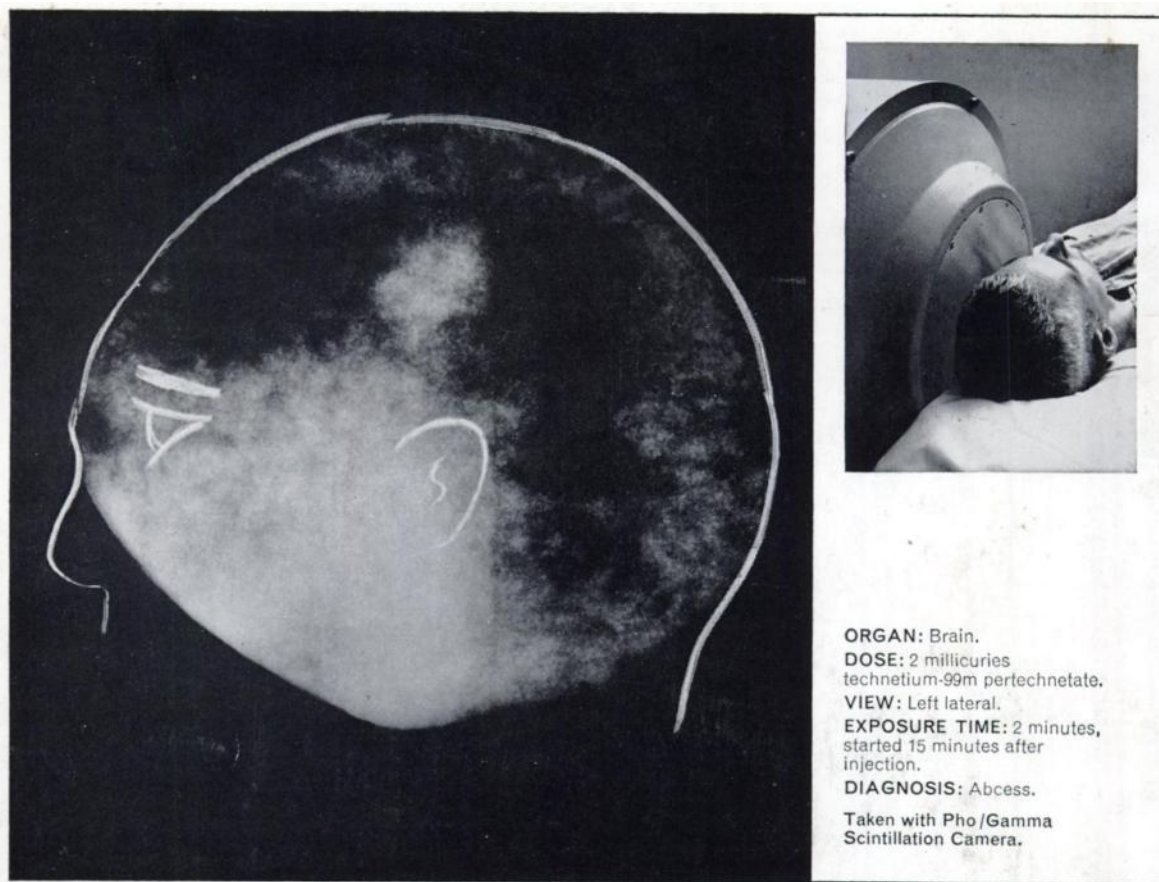
1. J. G. McAfee, C. F. Fueger, H. S. Stern, H. N. Wagner, Jr. and T. Migita: Tc^{99m} pertechnetate for brain scanning, *J. Nucl. Med.*, 5:811, 1964.

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