

Isotopic Localization of the Placenta

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Localization of the placenta is important in the management and basic study of the obstetric patient.

Placentography with radioactive isotopes is based on the fact that the placenta contains wide sinusoids and intervillous spaces. In this area, therefore, a large amount of maternal blood is pooled, various methods with different isotopes (^{24}Na , ^{131}I , ^{132}I , ^{51}Cr , $^{99\text{m}}\text{Tc}$, etc.) are in use to locate placental site.

We use from 7 to 20 μCi of radiiodinated (^{131}I) human serum albumin.

On preparation for the procedure, iodine is given to the mother to block uptake of ^{131}I by the fetal thyroid. ^{131}I HSA is injected

into the antecubital vein and after allowing 5 to 10 minutes to permit through mixture with the blood, counts are made.

First the uptake is determined by a scintillation counter in each of the 12 order 9 areas into which the abdomen is divided and the accuracy rate of 33% in 32 cases.

And then we determined by the linear scanning method (3 direction) and the accuracy rate of 43% in 32 cases.

Isotopic localization of the placenta with ^{131}I -HSA is a simple method of detecting of the placental site, but in the future many problems awaiting solution on the accuracy rate.

Application of Radiolymphography Utilizing Radioactive Colloidal Gold for Lymph Node Metastasis in Gynecological Field

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It is of importance for the diagnosis and the treatment of gynecological cancer to examine the pelvic-abdominal lymphatic system. At the present time, lymphography, oily contrast medium is injected directly into the lymphatic vessels is used for this purpose, that is a very useful method for the diagnosis of the lymphatic lesions.

On the other hand, radiolymphography using radioisotope into the lymphatic system, provides not only diagnostic meanings by the scanning procedure, but also the therapeutic potential by the selective distribution of radiation dose of RI.

Usually, the radioactive colloidal particles (^{198}Au , ^{177}Lu , ^{90}Y etc.) or radioactive oily contrast medium (Ethiodol- ^{131}I , Popiodol- ^{131}I) are used for this purpose. The uptake of these materials depends on the node's physiologic integrity.

The route of administration consists of two methods; direct injection into the lymphatic vessels of the dorsum of each foot and indirect injection into the lymphatic vessels of the dorsum of each foot and indirect injection into the parametrial tissue or the subcutaneous tissue (the first or second interdigital space of each foot). Although, there are some technical disadvantages in the former procedure. The localization of radiocolloid in the pelvic-abdominal lymph nodes by this method, however, is safer, higher and more rapid than by the latter procedure. On the other hand, the subcutaneous infusion of tracer dose is a simple procedure that requires no skill and no surgical intervention. Because of its low activity and slow accumulation, scanning of the inguinal, iliac and abdominal areas must be done