

IMAGING MODALITIES IN OBSTETRICS

ESSAY

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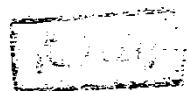
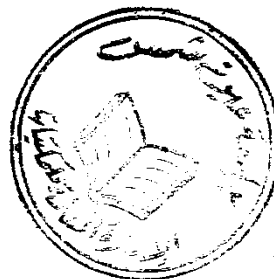
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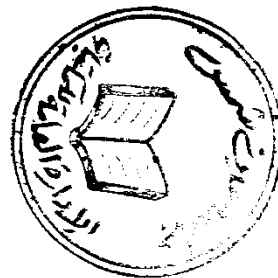
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الحمد لله

بسم الله

بسم الله الرحمن الرحيم

"إن الله لا يخفى عليه شيء فى الأرض ولا
فى السماء، هو الذى يصوركم فى الأرحام
كيف يشاء لا إله إلا هو العزيز الحكيم"

صدق الله العظيم

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Introduction

Imaging modalities used for both diagnosis and therapy during pregnancy include:

Ultrasound, magnetic resonance imaging, Computed Tomography scanning and x-ray.

X-RAY :-

X-rays is the most worrisome to both the obstetrician and the patient with regard to its safety for the fetus. Many radiological procedures are pregnancy is diagnosed. These procedures are frequently under taken because of emergencies such as trauma or life threatening illness.

Fortunately, most diagnostic x-ray procedures are associated with little or no known significant fetal risks, however, as with drugs and medication, radiological procedures done during pregnancy may lead to litigation if there is adverse pregnancy outcome.

Including therapeutic abortion because of patient or physician anxiety. The types of radiation and their biological effects will be mentioned in detail.

The harmful effect of ionizing radiation can be direct or indirect with 3 principle biological effect as:

1. Cell death with effect on embryogenesis.
2. Carcinogenic.
3. Genetic effects of future generations from germ cells mutation.

Ultrasound :-

Which has the upper hand in diagnosis and as an aid to management most of problems of pregnancy.

- Ultrasound has no contraindication in imaging of maternal organs during pregnancy. To date, no documented harmful fetal effect have been reported from ultrasound imaging.

Computed tomography scanning (CT):-

* There is other important imaging modalities for evaluation of all organ system which is (CT scanning).

Cranial CT scanning is the most commonly requested study in pregnant women. Nonenhanced CT scanning is the best imaging technique to detect acute hemorrhage within epidural, subdural, subarachnoid space in case of pregnancy induced hypertension-eclampsia as it may show subcapsular hematoma which is important for identification of eclamptic complication.

Computed tomography pelvimetry is performed to evaluate maternal pelvic bony dimension for breech vaginal delivery.

Magnetic resonance imaging :-

Magnetic resonance imaging (MRI) has emerged as a major imaging modality in recent years because of its resolution, ability to characterize tissue, and its reproduction of information in three planes. (Axial, sagittal, coronal), there have been several studies attesting to safety of (MRI). To date, no harmful effect on pregnancy, have been