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شبكة المعلومات الجامعية
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TRANSVAGINAL SONOGRAPHIC ASSESSMENT OF THE CERVIX BEFORE INDUCTION OF LABOUR

Box 19

Thesis For Partial Fulfillment of
Master Degree in Obstetrics and Gynaecology

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَنَكَ لَا عِلْمَ لَنَا إِلَّا
مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ ﴿٣٢﴾

وَقُلْ لِيُحْيِيكَ اللَّهُ

(سورة البقرة - الآية ٣٢)

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Introduction
&
Aim of The Work

INTRODUCTION

Successful induction of labour has been based mainly on the pre-labour cervical assessment (*Lang et al.*, 1982), digital examination of the cervix has been the standard method of cervical assessment before and during the induction process.

Several studies addressed the relationship between pre-induction scoring system and the course of labour; according to *Friedman et al.* (1966); the Bishop score has a poor predictive value for the outcome of induction.

Paterson et al. (1991) found that among the Bishop score components only dilatation and effacement have shown a significant correlation with a successful vaginal delivery.

Studies have demonstrated differences between digital and transvaginal ultrasonographic assessment of the cervix (*Lim et al.*, 1992). It was reported that digital examination of the cervix detected only 38% of cases of cervical funneling diagnosed by transvaginal ultrasonography (*Okitsu et al.*, 1992).

Also, in a study in which obstetricians were asked to estimate the normal length of an uneffaced cervix at term by digital examination the mean length was 2.4cm with a range of 1 to 4cm and a coefficient of variation of 26% (*Holcomb et al.*, 1991).

Collectively these studies indicate that digital examination is subjective and has limitations and potential risk of premature rupture of membrane with repeated cervical examinations (*Lenihan*, 1989).

So, ultrasonographic imaging of the cervix has emerged as an alternative method to assess cervical length and dilatation (*Anderson et al.*, 1990).

Aim of The Work

Assessment of accuracy of transvaginal ultrasonography in evaluation of the cervix before induced labour compared with digital examination.

*Review
of Literature*

EMBRYOLOGY OF THE CERVIX

The two paramesonephric (Mullerian) ducts which play a very important part in the development of the female reproductive system, appear when the embryo length reaches 10-12mm (at the beginning of the sixth week).

Each commences as a groove like invagination of the coelomic epithelium on the dorsilateral aspect of the mesonephric ridge near its cephalic end. Its blind end grows tailwards in the ridge as a solid rod of cells which acquires a lumen as it lengthens. Throughout the extent of the mesonephros it lies lateral to the mesonephric duct. In the eighth week, the mesonephros bends medially at its caudal end, crossing ventral to the mesonephric duct to enter the genital cord where it bends caudally in close apposition with its contralateral fellow. The two mesonephric ducts reach the dorsal wall of the urogenital sinus during the third month and their distal blind ends produce an elevation on it termed the "Mullerian tubercle or eminence".

Each paramesonephric duct consists of an upper vertical, an intermediate horizontal and a lower vertical portion. The lower vertical parts of the two ducts fuse with each other to form the uterovaginal canal which gives rise to the cervix and primitive vagina (*Basmajian, 1989*).