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التوثيق الالكتروني والميكروفيلم

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شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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ASSESSMENT OF TUBAL PATENCY BY TRANSVAGINAL HYSTEROSALPINGOULTRASONOGRAPHY (HSUG) COMPARED WITH TRADITIONAL METHOD IN CASES OF INFERTILITY

A thesis

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Introduction

Introduction

A highly fertile couple practicing coitus regularly without contraception takes an average of six months to achieve pregnancy. Chances of conception are 80% after one year and 90% after one and half year. Failure to conceive after two years is the proper time to start investigations, unless the women is over thirty years and the man is over fourty years or as soon as they worry. **(Mosher and Pratt, 1993).**

Infertility is estimated to occur in ten to fifteen percent of couples, the prevalence has increased in the last decade because of an increase in sexually transmitted diseases resulting in pelvic inflammatory diseases andbecause of an increasing tendancy to delay child bearing. **(Krysiewicz,1992).**

The problems of infertility have assumed an increased importance in health care systems in recent years. The advent of new technologies for assisted reproduction has also influenced the overall approach to treatment. **(Jones, 1995).**

Community awareness of newer reproductive technologies, together with the expectation of couples that they have the inherent right to determine their reproductive destiny, have led to increased demand for fertility-enhancing services. **(Jones, 1995).**

Considerable progress has been made in understanding of the reproductive physiology and management of infertility including microsurgery and reproductive assisted techniques. **(Yoder and Hall,1991).**

Imaging techniques play a significant role in this assessment andwith the developement and availability of newer and improved techniques of diagnosis which determine the precise underlying cause or causes, thus, the appropriate therapeutic plan could be allowed. **(Krysiewicz,1992).**

Of the many different causes of infertility tubal occlusion is one possibility that needs to be excluded or confirmed by investigations. More than one third of infertile patients are attributed to a tubal

factor either as a single or a contributing cause. **(Krysiewicz, 1992).**

Trans-vaginal sonography has been applied to a wide range of gynaecological disorders particularly in infertility. **(Bourne et al, 1993).**

Trans-vaginal application enables the effective use of higher frequencies, enhancing resolution with less tissue attenuation.**(Mitri et al, 1991).**

Sonography of the tubes was flustrated as it is poor sonic reflector, devoid of the defined interfaces that produces a clear organ outline. This creates the need for Hystero-salpingo-ultrasonography (HSUG) using an echo-contrast medium. **(Mitri et al, 1991).**

Aim Of The Work

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The aim of the present study is to evalute the method of transvaginal hystero-salpingo-ultragraphy (HSUG) with the traditional hysterosalpingography (HSG) for estimation of tubal factor as a cause of infertility.

REVIEW OF LITERATURE

TUBAL ANATOMY

The oviduct is the anatomic connection between the ovary and the uterus. As such it is the site of numerous functionally and temporally complex physiologic processes; most of which are incompletely understood if not entirely unsuspected. Despite its pivotal importance in reproduction and the awareness of this organ's structural and functional complexity, clinical interest in the oviduct remains concerned with its patency. **(Eddy, 1990).**

Embryologically, the oviducts are derived from the paired upper portions of the paramesonephric ducts whose lower portions fuse to from the uterus . As such, the lumen of each tube is confluent proximally with the endometrial cavity and distally with the peritoneal cavity. Because the ovaries, like the female duct system, develop retroperitoneally high in the abdominal cavity, their subsequent descent into the pelvis pulls the oviducts along with them. By sagging into the peritoneal cavity, the oviducts become surrounded by a double fold of peritoneum which gives rise to the mesosalpinx. Between the leaves of the mesosalpinx, varying amounts of connective tissue are deposited. Through this connective tissue, the vascular, nervous, and lymphatic systems pass from their retroperitoneal origins into the tube. **(Eddy, 1990) .**

The oviduct, therefore, consists of an outer serous coat applied to a layer of loose areolar connective tissue. A tubal myosalpinx and an inner epithelial layer, the endosalpinx which lines the tubal lumen. The tube average ten to twelve centimeters in length, however, marked biologic variability in the size of the oviduct exists between individuals. **(Krantz, 1994).**

On the basis of morphologic characteristics, the tube may be divided into several distinct *segments:*

A. Interstitial Segment :

It passes through the uterine wall and is therefore surrounded by myometrium, the myosalpinx consists of an outer layer of longitudinally arranged smooth muscle bundles, an intermediate circularly arranged layer and an inner longitudinal layer. The endosalpinx, consisting of secretory and ciliated cells, is composed of four or five low folds which create a cruciform or stellate lumen approx-