EVALUATION OF ENDOMETRIAL PATTERN BY SUCTION CURETTAGE IN CASES OF DYSFUNCTIONAL UTERINE BLEEDING

THESIS SUBMITTED FOR PARTIAL FULFILLMENT OF MASTER DEGREE IN OBSTETRICS & GYNECOLOGY

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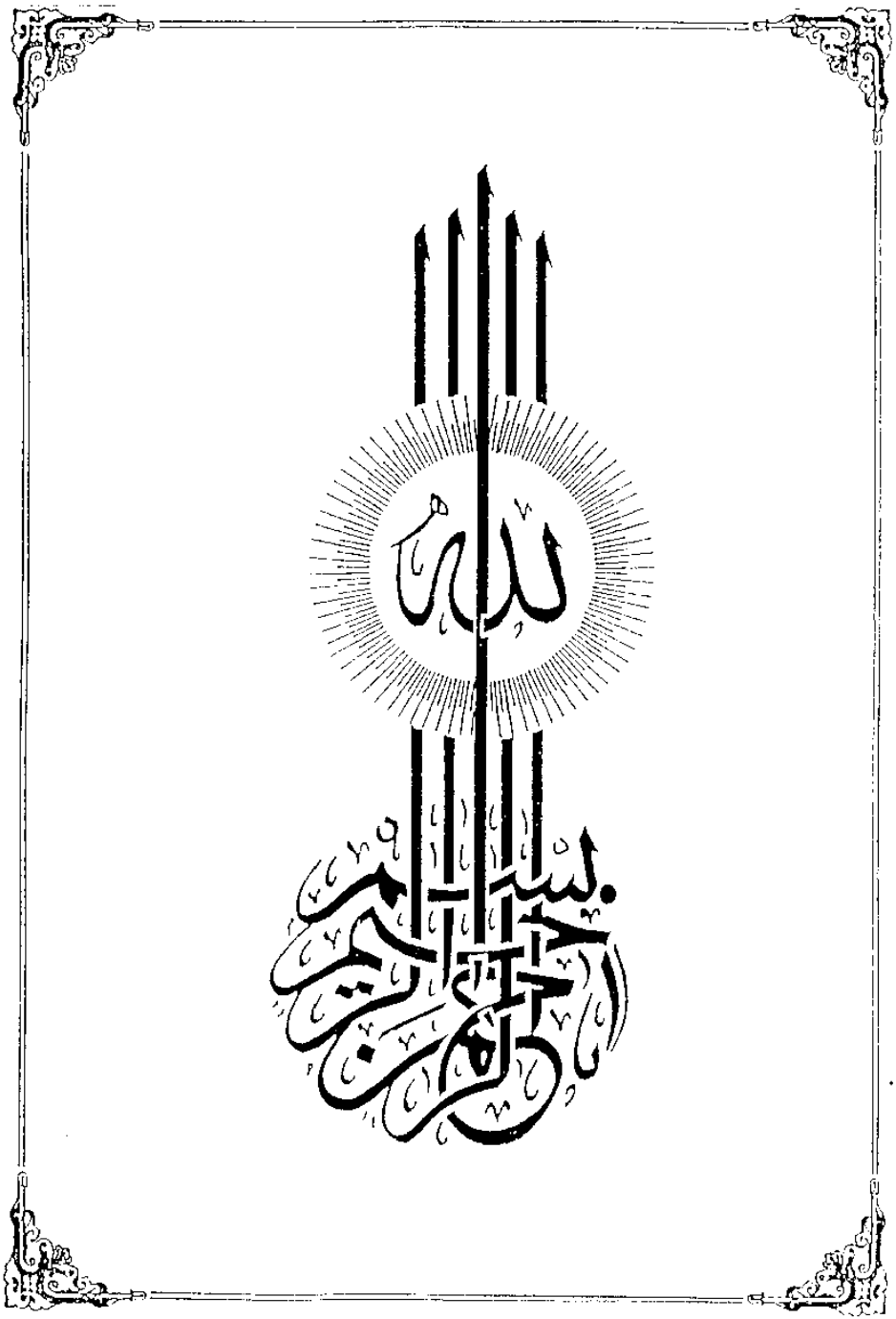
I offer this work to the soul of my father.



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INTRODUCTION

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The length and the duration of the menstrual cycle and the amount of flow vary among normal women. Profound deviations from the accepted norms should suggest the possibility of functional or anatomicabnormality. This means that any bleeding from the uterus that differs materially from that of the usual menstrual cycle in frequency of occurence, amount or duration of flow is abnormal (Benson 1980).

The condition of abnormal uterine bleeding may represent only a disturbance of function (particularly endocrine function) or it may be the result of organic disease , either benign or malignant.

At sometimes between menarche and menopause almost every woman experiences one or more episodes of abnormal uterine bleeding (Benson , 1980).

Dysfunctional uterine bleeding (D U B) is categorised as a major cause of abnormal uterine bleeding. It is defined as abnormal uterine bleeding unassociated with pregnancy , infection , or tumour and is assumed mainly to follow abnormal ovarian function (Smith, 1985) .

The term dysfunction refers to some disorder in the endocrine or physiological mechanism which results in menstruation. This mechanism involve hypothalamus, pituitary , ovary or endometrium. Worley (1986) states that D U B refers only to bleeding caused by ovarian endocrinopathy.

It is of great importance to exclude organic causes of abnormal uterine bleeding before diagnosing D U B . This is to be accomplished by full history taking , adequate physical examination and proper investigations.

As majority of patients with D U B are treated as out patient cases, it is of great help to have a method for out patient endometrial sampling. If this office procedure is available and is reasonably accurate, this will save time and money besides not subjecting the patient to the hazards of general anaesthesia of D & C.

Suction biopsy by Karman canula and syringe is in common use. In this method we evacuate air from the syringe of the kit creating a negative pressure. We then aspirate the endometrial sample obtained by the sharp edge of Karman canula fitted to the syringe. This is usually

done without anaesthesia and according to os size we select the appropriate canula.

Grimes et al (1982) compared this suction technique with formal D & C biopsy technique and found that suction biopsy is more safe than D & C and efficient in getting endometrial samples with less complications as perforation of uterus, infection , and haemorrhage.

AIM OF THE WORK

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The aim of our study is recognition of different pathological patterns of endometrium in cases presenting with dysfunctional uterine bleeding.

Besides , evaluation of suction biopsy technique as an alternative method to D & C biopsy for getting endometrial tissue in out patient clinics .

REVIEW OF LITERATURE

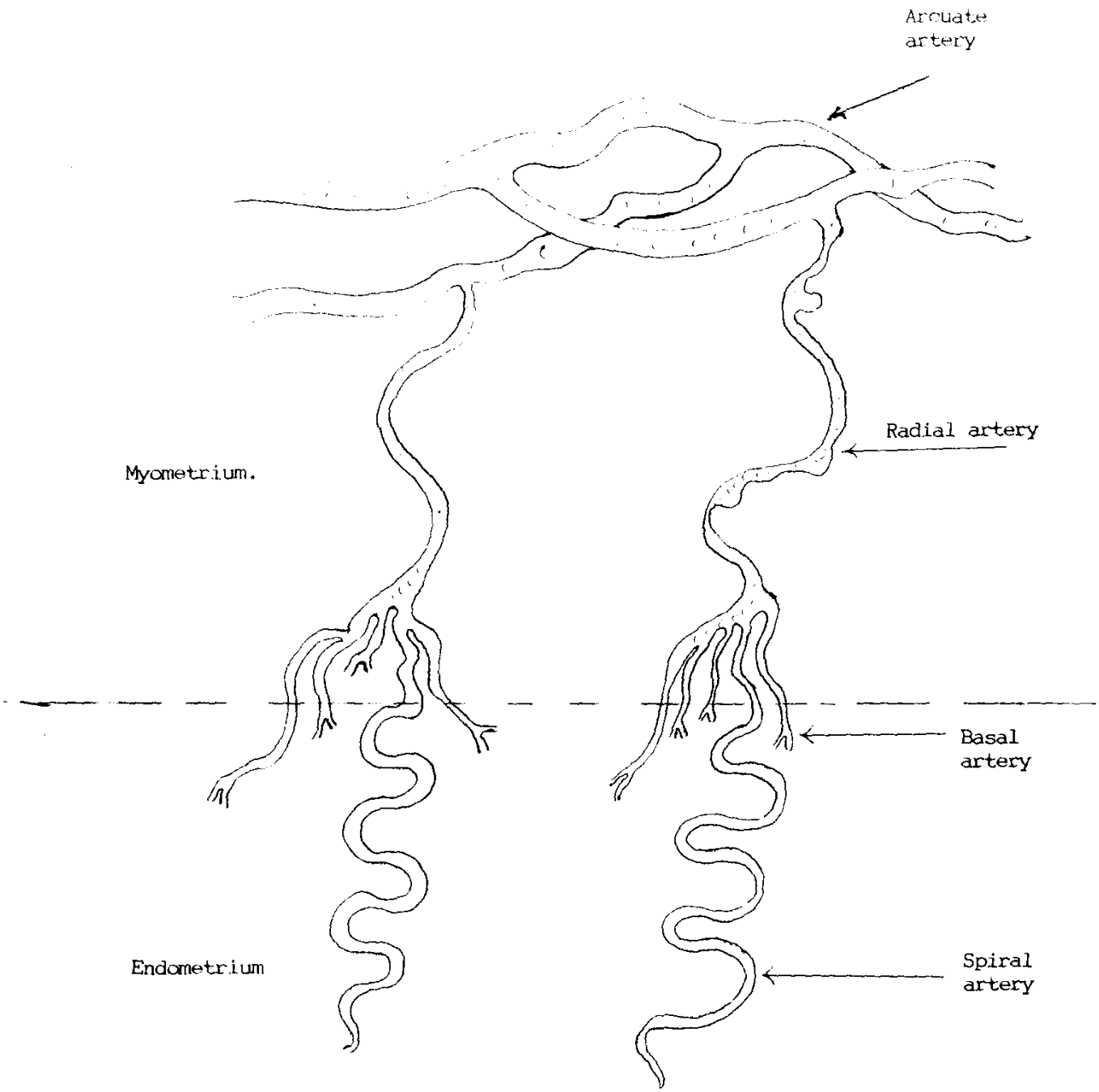
PHYSIOLOGY OF MENSTRUATION

Menstruation is physiologic shedding of the endometrium that occurs at approximately monthly intervals from menarche to menopause. (Benson et al,1980).

During a woman's life, the endometrium normally is shed and regenerated no fewer than 400 times. The life time cumulative menstrual blood loss associated with normal endometrial shedding is 10 to 20 liters or more,an amount of blood that contains at least three times the total body iron content of the average adult woman.(Pritchard et al, 1985).

ENDOMETRIUM :-

The innermost portion of the uterus, or mucosal layer that lines the uterine cavity in non pregnant woman is the endometrium. It is a thin, pink, velvet-like membrane which, on close examination is found to be perforated by a large number of minute openings, these are the ostia of the uterine glands. Because of the repetitive cyclic changes that occur during the reproductive years of a woman's life, the endometrium normally varies greatly in thickness and measures from 0.5 mm to as much as 5 mm in



DIAGRAMATIC REPRESENTATION OF MYOMETRIAL AND ENDOMETRIAL ARTERIAL ARRANGEMENT.

(Pritchard 1985)

thickness. The endometrium is comprised of surface epithelium, glands and interglandular mesenchymal tissue in which there are numerous blood vessels. The epithelium of the endometrial surface is comprised of a single layer of closely packed high columnar , ciliated cells. During much of the endometrial cycle, the oval nuclei are situated in the lower portions of the cells but not so near the base as in the endocervix. The uterine tubular glands are invagination of the epithelium, which , in resting state , are similar to the fingers of a glove.

The glands extend through the entire thickness of the endometrium to the myometrium which is occasionally pentrated for a short distance. Histologically , the inner glands resemble the epithelium of the surface and are lined by a single layer of columnar,partially ciliated epithelium that rests upon a thin basement membrane.

The vascular architecture of the endometrium is of special importance in the phenomena of menstruation . Arterial blood is transported to the uterus by way of the uterine and ovarian arteries. As the arterial branches penetrate the uterine wall, they run obliquly inward and reach its middle third, these vessels ramify in a plane that is parallel to the surface and thence these vessels are named the arcuate arteries. Radial branches extend

from the arcuate arteries at right angles toward the endometrium. The endometrial arteries are comprised of coiled or spiral arteries which are a continuation of the radial arteries, and basal arteries which branch from the radial arteries at a sharp angle for short distance & supply the basal layer of the endometrium. The coiled arteries supply most of the midportion and all of the superficial third of the endometrium. The walls of these vessels are responsive i.e sensitive to the action of hormones especially by vasoconstriction , and thus probably serve an important role in the mechanism of menstruation.

The straight basal endometial arteries are smaller in both caliber and length than are the coiled vessels. These vessels extend only into the basal layer of the endometrium or at most a short distance into the middle layer and are not responsive to hormonal action. (Pritchard et al,1985).

It is believed that there is a system of arteriovenous anastomosis in the endometrium which are controlled by nerves terminating in contractile parts of the anastomosis.

ENDOMETRIAL CYCLE :-

The histologic changes that occur in the endometrium during the mentrual cycle are so characteristic that these