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## Urodynamic Studies After Natural Menopause

رسالة

A THESIS

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

لَا يُكَلِّفُ اللَّهُ نَفْسًا إِلَّا وُسْعَهَا لَهَا مَا كَسَبَتْ  
وَعَلَيْهَا مَا اكْتَسَبَتْ رَبَّنَا لَا تُؤَاخِذْنَا إِنْ نَسِينَا  
أَوْ أَخْطَأْنَا رَبَّنَا وَلَا تَحْمِلْ عَلَيْنَا إَصْرًا كَمَا حَمَلْتَهُ  
عَلَى الَّذِينَ مِنْ قَبْلِنَا رَبَّنَا وَلَا تَحْمِلْنَا مَا لَا طَاقَةَ لَنَا بِهِ  
وَاعْفُ عَنَّا وَاعْفِرْ لَنَا وَارْحَمْنَا أَنْتَ مَوْلَانَا فَانصُرْنَا  
عَلَى الْقَوْمِ الْكَافِرِينَ

صدق الله العظيم

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# ***INTRODUCTION***

## INTRODUCTION

Recent statistics indicate that life expectancy for women is increasing and that menopause occurs at an average of 51 years, (Bent, 1985). This means that the number of postmenopausal women is steadily increasing with all the medical problems facing them. One of the most important problems that affect women in this age is the urinary problems.

Postmenopausal women have shown deterioration in lower urinary tract function in comparison to perimenopausal women. Sorensen, (1988) and Sorensen (1991) reported a decrease in maximum urethral pressure and functional length with increased intravesical pressure in postmenopausal women.

The relationship between estrogen and urodynamic studies of low urinary tract is a subject of controversy. Sorensen et al., (1989) reported that estrogen changes during the menstrual cycle were of no effect on urine flow rate.

Hypoestrogenism due to induced menopause by gonadotrophic releasing hormone, (Langer et al., 1991) or in women with premature ovarian failure, (Karram et al., 1989) did not show changes in cystometry, uroflowmetry or profilometry.

Fantl, (1988) reported that estrogen treatment in postmenopausal women with stress incontinence increase maximum cystometric capacity but was of not effect on urethral urodynamics.

Kinn and Lindskog, (1988) and Ahlstrom, (1990) reported an increased urethral pressure and maximum urethral pressure after estrogen treatment.

Sacco et al., (1990) reported a beneficial effect of estrogen treatment in postmenopausal women with stress incontinence, both on the bladder and the urethra. They reported an increased volume of first sensation in addition to increase in maximum urethral pressure and maximum closure pressure .

Thus, it appears that estrogen is of little effect on the lower urinary tract in the early age of menopause but could be of beneficial support to lower urinary tract if troubles appear in old age.

# ***AIM OF THE WORK***

## AIM OF THE WORK

Evaluation of the lower urinary tract function in postmenopausal women using urodynamic studies.

# **REVIEW OF LITERATURE**

## **ANATOMY OF THE LOWER URINARY TRACT**

In order to appreciate fully the aetiology of defects that might arise in the function of the lower urinary tract, it is necessary to become acquainted with the anatomy and physiology of the bladder and urethra, (Malvern, 1980). The lower urinary tract includes the bladder, the bladder neck, and the urethra.

### **Anatomy of the bladder :**

The bladder is a hollow muscular organ with a capacity of 300-600 ml but with such power of distension that in condition of prolonged retention, it can accommodate several litres of fluid, (Jeffcoat, 1987).

### **Position :**

The base of the full bladder occupies a plane which runs from the middle of the back of the symphysis pubis to the fourth sacral vertebra. The shape and position of the fundus of the bladder vary with the volume of the contents, the top can extend as high as the umbilicus.

### **Lining of the bladder :**

The interior of the bladder is completely covered by transitional epithelium of several layers thickness. There is