

Introduction

Hysterectomy is a preferred treatment option in women because of its low post operative morbidity and effectiveness in bringing definitive cure to disorders such as menometrorrhagia, leiomyoma, uterine prolapse, adenomyosis and post menopausal bleeding. (*Altman et al., 2007*)

Large variation exist in rates of hysterectomy between and within countries and between population with similar characteristics. Although health economics factor, rates of hysterectomy for benign indications are largely affected by differences in medical practice and attitudes (*Border et al., 2001*).

Considering the generally high hysterectomy rates in premenopausal and perimenopausal women increased knowledge of long term outcomes associated with undertaking hysterectomy for benign indications is essential.

For decades the effect of hysterectomy on lower urinary tract function have been controversial, one theory suggest that hysterectomy not associated with increase in symptoms of urinary incontinence (*Tamsin et al., 2007*) (*Gustafsson et al., 2006*), another theory suggests that hysterectomy could initiate stress urinary incontinence by interruption of the local nerve supply to the urethra and the procedure might cause changes in urethral pressure by distortion of pelvic – organ anatomy. (*Altman et al., 2007*)

Lower urinary tract symptoms (**LUTS**) in general and urinary incontinence (**UI**) in particular are prevalent among women. The reported prevalence of **LUTS** varies from 5 to 22% and that of **UI** from 12 to 45% depending on definitions, target populations, and study design. The observed risk factors for **LUTS** are muscular and /or neuron muscular pelvic injury during child birth, diuretics, obesity, estrogen deficiency, age, race, chronic obstructive pulmonary disease, and hysterectomy. A recent review on **UI** after hysterectomy supports the latter association (*Helga et al., 2005*).

Female stress incontinence defined as involuntary leakage of urine after effort or exertion has a population – based prevalence of nearly 40% in most industrialized countries, usually with severe implication for daily function, social interaction, sexuality and physiological well being (*Miner et al., 2004*).

Stress incontinence has been related to poor pressure transmission to the urethra due to hypermobility of the bladder neck or an insufficient closure function of the urethra itself. (*Van der vaart et al., 2002*).

Stress urinary incontinence occurs during periods of increased intra abdominal pressure rises higher than the pressure that the urethral closure mechanism can withstand. Stress urinary incontinence is the most common form of urinary incontinence in women and is particularly common in younger women. Active women are more likely to notice symptoms of stress urinary incontinence, in a survey of 144 collegiate female varsity athletes 27% reported stress incontinence while participating in their sport. The

activities most likely to produce urinary loss where jumping, high – impact landings, and running. (*Abrams et al., 2003*)

Stress incontinence is an interesting disease as the same symptoms have varying effects on different women. This condition is best thought of by a biobehavioral model that examines the interaction of three variables: (i) the biologic strength of the urethral sphincteric mechanism, (ii) the level of physical stress placed on the closure mechanism, and (iii) the woman's expectations about urinary control. These of demonstrable leakage, and a patient's response to her stress incontinence. (*Delancey, 2002*)

Modification of any one of these factors may influence the patient's clinical status, for example, may patients give up certain physical activities (e.g., running, dancing, aerobics) when they experience stress incontinence. Limiting their activities may eliminate the incontinence problem, but it does so at a certain cost to their quality of life. Other women learn to cope with stress incontinence by adopting new body postures during physical activities that prevent them from leaking or by strengthening their pelvic muscles to compensate for increased exertion. (*Jonathan et al., 2007*).

Other women may be profoundly relieved to find out that the small amount of leakage they experience from time to time is not abnormal. In any case, the interaction of these three bio psychosocial factors opens up a variety of strategies for the management of stress incontinence. (*Jonathan et al., 2007*).

The prevalence of urinary incontinence in women is well described in several investigations. However on, only few investigators have focused on

the incidents of incontinence which seems to be a rather dynamic condition with many patients passing from incontinence to continence and vice versa (*Gudrun et al., 2007*).

Stress incontinence also has a major effect on health economy and is increasingly recognized as a global health concern, identification and possible reduction of risk and for society's direct health care costs. (*Minor et al., 2004*)