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COMPARATIVE STUDY OF INCREASED RISK OF URINARY INCONTINENCE IN VAGINAL DELIVERY VERSUS CAESAREAN SECTION

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ABSTRACT:

Urinary Incontinence is most common in Post-Natal Women due to strain of Pelvic Floor Muscle and Abdominal Muscle. This study aimed to determine the increased risk of Urinary Incontinence as compared with Vaginal Delivery or Caesarean section women. The purpose of the study was to compare increase risk of urinary Incontinence between Vaginal Delivery and Caesarean Section women. 50 Post – Natal Women taken on the basis of inclusion and exclusion criteria. The data for the study was collected from women between 20 -35 years. The research approach adapted in the study was simple random sampling. This research include collection of data and questionnaire from 50 women. Results from the present study allowed us to conclude that the prevalence of urinary incontinence is high among the women who have had vaginal delivery than the women who have had cesarean section. Further studies are necessary in order to confirm these data and especially to assess other factors associated with delivery, which can contribute to the development of urinary incontinence. The risk of urinary incontinence is higher among women who have had cesarean section and is even higher among women who have had vaginal delivery.

KEY WORDS:- Urinary incontinence; Vaginal Delivery; Cesarean section, KHQ, Pelvic Floor Muscle

1. Introduction

1. INTRODUCTION:

Urinary Incontinence is defined by the International Continence Society [ICS] as any involuntary urine loss. The prevalence of the urinary incontinence varies much, especially to the type of population and the different age group investigated. Urinary incontinence is involuntary leakage of urine. This affects upto 40% 1 of women, with an estimated 6% of adults having urinary incontinence severe enough to interfere with daily activities. Pregnancy and delivery increases its prevalence 2 Pregnancy related physiological changes in urogenital system i.e. the increased pressure of growing uterus and fetus on the pelvic floor muscles throughout the pregnancy, together with varying levels of hormonal changes, estrogen, progesterone and relaxin are responsible for weakening of supportive and sphincteric function of pelvic floor. Stretching and tearing of pelvic floor muscles during delivery leads to pelvic floor weakening and dysfunction predisposing to fecal and urinary incontinence. Among the many types of urinary incontinence in women, the most frequent is SUI, defined as involuntary urine loss during some physical exertion, sneeze or cough. The second most frequent cause stems from hyperactivity of the detrusor muscle, mainly represented by the urge incontinence, that is involuntary urine loss associated with a strong urge to void urine. Often times, we find an association of both types of complaints characterizing the mixed urinary incontinence. Pregnancy and delivery are the main risk factors associated with SUI, especially during the reproductive years, particularly vaginal delivery, due to the damage that it can cause to integrity of muscles and nerves of the pelvic floor. These muscles and nerves represent an important factor in maintenance of urinary incontinence. The arguments used to justify the lack of protection caused by a C-section include physiological alterations brought by pregnancy, such as changes to anatomical relations between the bladder and the uterus, reduced strength of the fascia that anchors the bladder neck, high level of progesterone and bladder instability.

2. Materials and Methods

METHODOLOGY:-

METHOD:

The data reported here is a part of a research project in which 50 women from 20- 35 years.

SOURCE OF DATA:

DR. B R Ambedkar Medical College and Hospital [Inpatient and Outpatient, OBG department].

METHOD OF COLLECTION OF DATA:

- **Sampling Design:** Simple random sampling
- **Sample Size :** 50 patients • Group A -25 patients • Group B -25 patients
- **Duration of the study:**4-6 weeks
- **Material used:** ♣ Paper ♣ Pen ♣ KHQ ♣ Chair
- **INCLUSION CRITERIA:** ♣ Post natal age group between 20-30yrs
 - ♣ Subjects who have incontinence problem
 - ♣ Only female subjects were taken
 - ♣ Women after delivery
 - ♣ Primigravida or multigravida
- **EXCLUSION CRITERIA:** ♣ Diabetic neuropathies
 - ♣ Congenital urological disease
 - ♣ Urinary tract infection
 - ♣ Neurogenic Bladder
 - ♣ Tumors of the bladder
 - ♣ Women with prolapsed
 - ♣ Nulliparous Women

PROCEDURE:

50 patients with urinary incontinence who fulfilled the inclusion and exclusion criteria were included for the study , informed consent from everyone orally . All the subjects were evaluated pregnancy based on the questionnaire

INCONTINENCE QUALITY OF LIFE QUESTIONNAIRE:

In this KING'S HEALTH QUESTIONNAIRE is used to measure severity of the incontinence and the impact of incontinence in Vaginal Delivery / Caesarean Section. On the basis of KHQ subjects were divided into vaginal delivery patients and caesarean section women

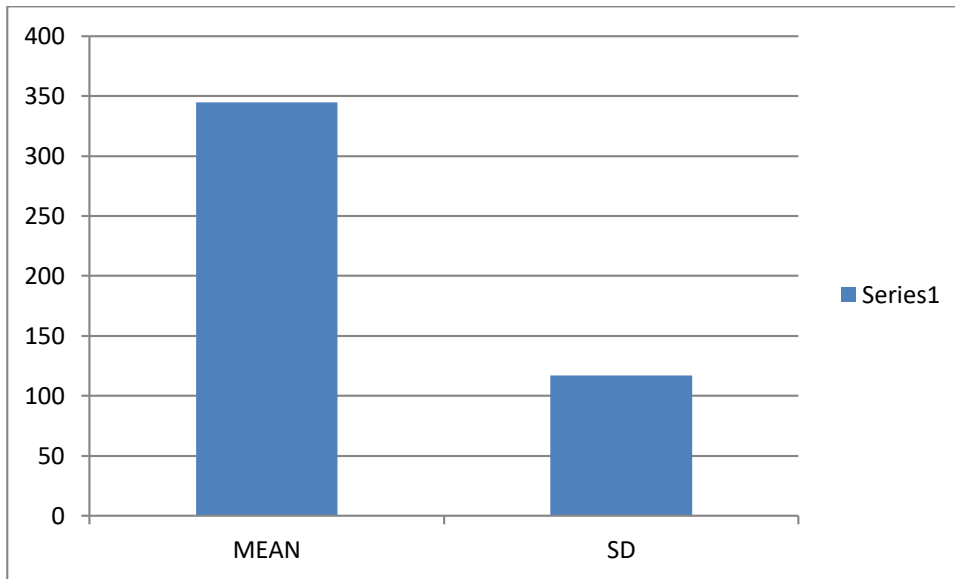
♣ **Group A :** Vaginal Delivery women 25 women were selected in this group those who had undergone Vaginal Delivery

♣ **Group B :** Caesarean Section Women 25 women were selected in this group those who had undergone Caesarean Section women

3. Results and Discussions

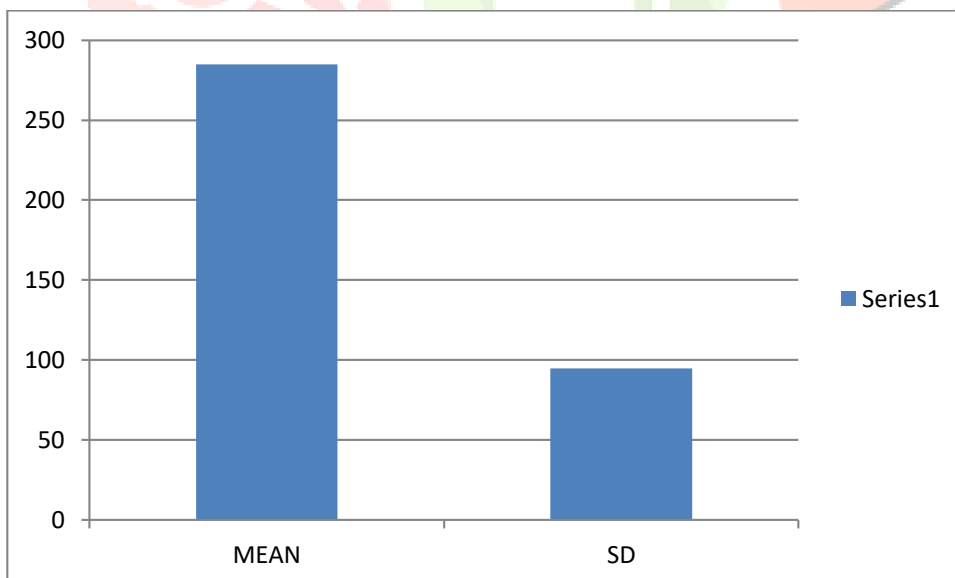
Mean and Standard Deviation of Vaginal Delivery:-

MEAN	SD
344.84	116.94



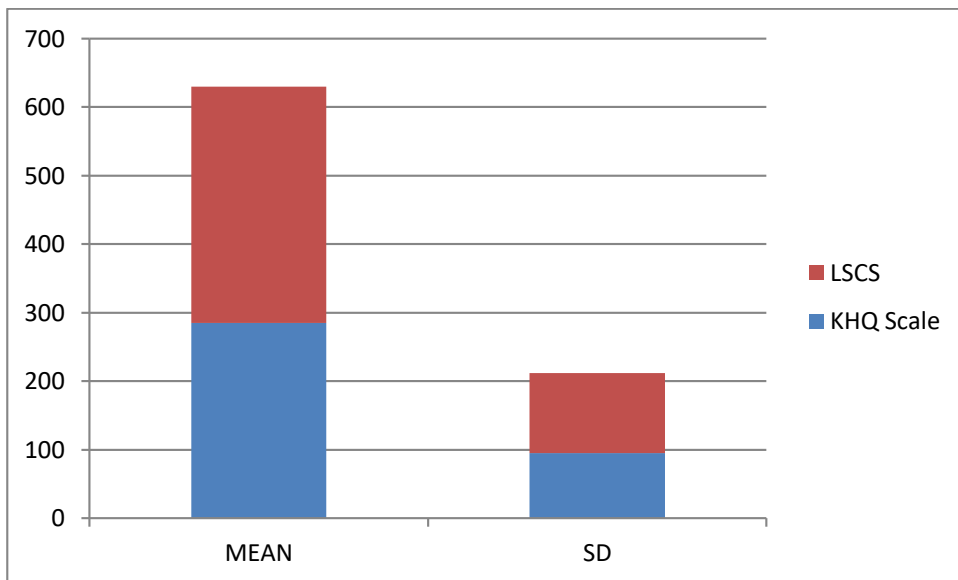
Mean and Standard Deviation of LSCS:-

MEAN	SD
284.84	94.877



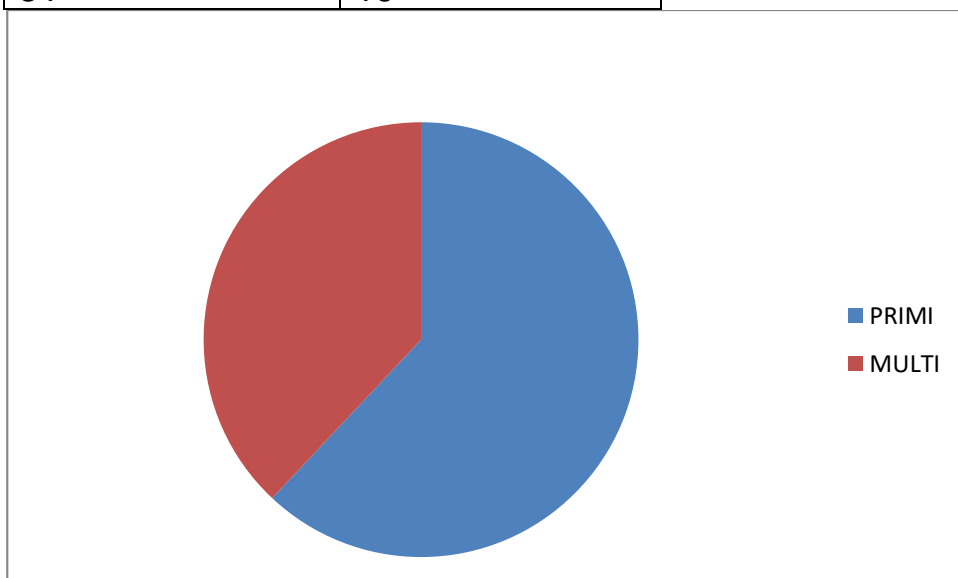
COMAPRISON OF INCREASED RISK OF URINARY INCONTINENCE IN VAGINAL DELIVERY VERSUS CAESAREAN SECTION:-

Vaginal Delivery	MEAN	SD
KHQ Scale	284.84	94.8774
LSCS	344.84	116.9419



INCIDENCE OF URINARY INCONTINENCE IN PRIMIGRAVIDA AND MULTIGRAVIDA

PRIMI	MULTI
31	19



DISCUSSION

In this study, women who have delivered by Vaginal Delivery were at higher risk for any Incontinence than Cesarean section women. Two groups of women were selected for this sub study. Those who had cesarean section and those who had Vaginal Delivery. This selection reduced the number of women available for analysis but made the results clearer, without loss of power to demonstrate important differences between the groups. The detailed data on incontinence and the large number of participants permitted analysis of sub group define according to age, type of incontinence and severity of incontinence. The part of the questionnaire addressing incontinence has been used in previous studies and the classification of types of incontinence and severity index have been validated

4. Conclusion

The risk factor for Urinary Incontinence among young and middle aged women, It has been suggested that Vaginal Delivery is the main contributing factor, possibly because of damage to important muscles, tissue or nerves. However, pregnancy itself may cause mechanical changes, hormonal changes or both that can lead to Urinary Incontinence. Results of epidemiologic and pathophysiological studies assessing the relation between the mode of delivery and Incontinence is inconclusive. A large community based study, to evaluate the risk of Incontinence associated with Cesarean section and Vaginal Delivery. The risk of Urinary Incontinence is higher among women who have had cesarean section and is even higher among women who have had Vaginal Deliveries

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