

A Retrospective Study of Obstetric Anal Sphincter Injury (OASIS) in Hospital USM (1st January 2007-31st December 2016)

Engku Husna Engku Ismail, Ahmad Amir Ismail

Obstetrics and Gynaecology Department, Hospital Universiti Sains Malaysia, Kubang Kerian, Malaysia

ABSTRACT

Background: To identify the trend of OASIS among women who delivered in HUSM, their sociodemographic data and associated risk factors. **Objective:** By identifying the trend of OASIS among women who delivered in HUSM, risk modification strategies can be done. **Methods:** Retrospective review of women who delivered in HUSM from 1/1/2007-31/12/2016 and sustained OASIS. The control were women who delivered during the same day with the index delivery without OASIS. All eligible 154 cases during the 10-year period and 154 controls were identified giving total of 308 patients. OASIS classified based on Sultan AH, 1999. Statistical analysis performed with SPSS version 22.0. Pearson's chi-square test was used to determine statistical significance. **Results:** Prevalence of OASIS among women who delivered in HUSM during the study period was 0.25%, an increased trend compared to previous study in 1996-2000 (0.16%). Among the OASIS (n=154), 39% (n=60) had 3A, 37% (n=57) and 10% (n=16) had 3B and 3C, and 14% (n=21) had 4th degree perineal tear. Three independent risk factors for OASIS are identified using multivariate analysis; namely primiparity (OR 6.91; 95%CI: 3.54, 13.49; p<0.001), higher infant birth weight >3500 gram (OR 0.40; 95%CI: 0.22, 0.73; p=0.003), and gestational age >40 weeks (OR 1.87, 95%CI: 1.11, 3.16; p=0.020). Area under the curve for the predictive ability of the model was 0.72 (95%CI: 0.68, 0.78) for OASIS. **Conclusion:** Primiparity, higher infant birth weight >3500 gram, and gestational age >40 weeks conferred the highest odds of OASIS among women who delivered in HUSM, with increased trend from 0.16% to 0.25%.

Outcomes of Mixed Urinary Incontinence and Urodynamic Stress Incontinence with Urgency after Mid-Urethral Sling Surgery

Yiap Loong Tan¹, Tsia-Shu Lo^{2,3,4}, Leng Boi Pue⁵, Sandy Chua⁶

¹Department of Obstetrics and Gynecology, Kuching Specialist Hospital, KPJ Healthcare Group, Kuching, Sarawak, Malaysia, ²Department of Obstetrics and Gynecology, Chang Gung Memorial Hospital, Keelung, Medical Center, Keelung, Taiwan, Republic of China, ³Division of Urogynecology, Department of Obstetrics and Gynecology, Linkou, Chang Gung Memorial Hospital, Linkou Medical Center, Taoyuan, Taiwan, Republic of China, ⁴Chang Gung University, School of Medicine, Taoyuan, Taiwan, Republic of China, ⁵Department of Obstetrics and Gynecology, Subang Jaya Medical Centre, Selangor, Malaysia, ⁶Department of Obstetrics and Gynecology, Cebu Velez General Hospital, Cebu City, Philippines

ABSTRACT

Introduction and Objectives: Mixed urinary incontinence (MUI) is defined as symptomatic complaint of involuntary leakage associated with urgency and also with exertion, effort, sneezing or coughing. The paucity of research especially surgical management of MUI limits its best management. **Methods:** This is a retrospective study to determine the outcomes on mixed urinary incontinence after mid-urethral sling surgery with two groups, urodynamic stress incontinence (USI) with urgency and urethral incompetence under stress (SUI-UD) with detrusor overactivity (DO)/detrusor overactivity incontinence (DOI). **Results:** 90 (USI-urgency group) women with preoperative USI and urgency with no demonstrable DO/DOI attained objective cure of 82.2% whilst the remaining 67 (MUI-UD group) women with both preoperative urethral incompetence under stress (SUI-UD) and DO/DOI reported to have objective cure of only 55.2%. Subjective cure was 81.1% and 53.7% respectively. The type of incontinence surgery does not affect the postoperative outcomes in both groups. Demographic factors identified to have a significant negative effect on cure rates were postmenopausal status (p=0.005), prior hysterectomy (p=0.028), pre-operative smaller bladder capacity (p=0.001) and a larger volume of pre-op pad test (p=0.028). A lower mid-urethral closure pressure (MUCP) was significant with post-operative failure of treatment with MUI-UD group (68.8±36.2 cmH₂O vs 51.9±24.7cmH₂O; p=0.033). **Conclusions:** Whilst there is evidence of good cure of stress component of MUI, urodynamic investigation prior to management of MUI could allow a more targeted treatment through more substantiated findings and definition. Presence of DO or DOI on urodynamic resulted in poorer objective and subjective outcome. Future outcome research on surgical mid-urethral sling surgery for the treatment of MUI should focus on a more defined MUI.