

## OBSTETRICS AND GYNECOLOGY FREE PAPERS

### Outcomes of continence surgery among women with stress urinary incontinence in a Philippine Tertiary Referral Center

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**Background:** Various surgical procedures have been done for stress urinary incontinence (SUI). Studies on their effectivity and on long-term outcomes abound in international literature. However, no local data has been published. This study aims to measure continence rates and quality of life at least 1 year after continence surgery.

**Methods:** This study is a retrospective cohort study which included patients operated on for stress urinary incontinence in a Philippine tertiary referral center from 2010 to 2014. They were divided into three groups: those who underwent Burch colposuspension ( $n = 8$ ), pubovaginal sling ( $n = 22$ ) or mid-urethral sling ( $n = 19$ ). Objective continence rate was measured using a cough stress test and a pad weight test while quality of life was measured through the Urogenital Distress Inventory and the Incontinence Impact Questionnaire.

**Results:** A total of 49 patients were included in the study. The average duration of follow-up was  $2 \pm 1.18$  for the Burch colposuspension (BC) group,  $2 \pm 0.87$  for the pubovaginal sling (PVS) group and  $2 \pm 1.49$  for the mid-urethral sling (MUS) group. Cough stress test was negative for 100% of patients in the BC and MUS groups and in 90.9% of those in the PVS group. Pad weight test was also negative for 100% of the BC group, 86.4% in the PVS group and 94.7% in the MUS group. These measures were not statistically significant. In the UDI-6 questionnaire, 87.5% of patients in the BC group ( $n = 7$ ), 72.73% of patients in the PVS group ( $n = 16$ ), and 78.95% of patients in the MUS group ( $n = 15$ ) did not complain of irritative urinary symptoms while 87.5% of patients in the BC group ( $n = 7$ ), 81.82% of patients in the PVS group ( $n = 18$ ), and 89.48% of patients in the MUS

group ( $n = 17$ ) remained totally continent and did not complain of obstructive urinary symptoms nor any discomfort on urination. In the IIQ-7 questionnaire, all patients in the BC group ( $n = 8$ ), 86.36% of patients in the PVS group ( $n = 19$ ) and all patients in the MUS group ( $n = 19$ ) did not complain of a negative impact of incontinence on physical activity; all patients in the BC group ( $n = 8$ ), 95.45% of patients in the PVS group ( $n = 21$ ), and 94.74% of patients in the MUS group ( $n = 18$ ) did not complain of a negative impact of incontinence on their ability to travel. All of the patients in the three groups did not complain of a negative impact of incontinence on their social relationships nor on their emotional status. No significant difference was seen in all of these factors across the types of surgery.

**Conclusion:** The continence rate and quality of life measures in women who underwent continence surgery show good results. Although no definitive statistical consideration can be made because of the low number of patients, there is a trend toward better outcomes with Burch colposuspension and mid-urethral sling for SUI. The decision should then be balanced with patient factors, potential adverse events and concomitant surgeries.

**Keywords:** stress urinary incontinence, Burch colposuspension, tension-free vaginal tape, trans-obturator tape, long-term continence rates

### Effect of interpregnancy interval on pregnancy outcome after miscarriage in a Sri Lankan population

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**Introduction:** Miscarriage or spontaneous pregnancy loss before 24 completed weeks of gestation affects one in five pregnancies. After a spontaneous miscarriage most women are anxious about the safe period for them to conceive again. Up to date the only available guideline to answer this question is WHO recommendation published in 2005. It recommends that after a miscarriage or induced abortion the women

should wait for at least 6 months in order to reduce the risks of adverse maternal and perinatal effects in the next pregnancy. Up to now no studies have been done in Sri Lanka to assess outcome of pregnancy after miscarriage in relation to inter pregnancy interval. With the advancing maternal age at first pregnancy and increase in subfertility rate waiting 6 months to plan another pregnancy can become quite distressing for couples expecting a baby after a miscarriage.

**Objectives:** The general objective of the study was to analyze the effect of inter-pregnancy interval on the second pregnancy outcome in women whose first pregnancy was a miscarriage. In order to carry this out following outcomes were looked in to

- Live birth after 24 completed weeks
- Miscarriage
- Low birth weight
- Pre term delivery

**Method:** A retrospective cohort study was carried out in two tertiary maternity care centers in Sri Lanka involving 392 women whose 1st pregnancy ended up in a miscarriage. Effects on second pregnancy outcomes were analyzed using multivariate and univariate logistic regression models after controlling for socio demographic data and method of management in 1st miscarriage (medical, surgical, conservative).

**Results:** Of the 392 women who miscarried in 1st pregnancy, 160 women (40.81%) had conceived within 6 months of the 1st pregnancy loss. There were 73 women (18.6%) who conceived at 6 to 12 months and 159 (40.56%) women who conceived after 12 months.

Inter pregnancy interval of less than 6 months after a 1st pregnancy miscarriage was not associated with increased risk of miscarriage, preterm birth, low birth weight or reduced risk of live birth. Compared to less than 6 months women who conceived at 6 to 12 months following a miscarriage were more likely to have a miscarriage in second pregnancy (odds ratio: 8.36 (3.49–20.03)). Women in inter pregnancy interval 6 to 12 months group (OR3.4 (1.64–7.35) and inter pregnancy interval of >12 months (OR3.3 (1.88–5.94)) were more likely to have a low birth weight baby compared to women in less than 6 month group. In this study population there was no association between inter pregnancy interval after a miscarriage and live birth rate or pre term birth.

**Conclusion:** Women who conceive less than 6 months after a first pregnancy miscarriage are no more likely to have a miscarriage or low birth weight baby than women who conceive after 6 months. Also there is no relationship between different inter pregnancy intervals after miscarriage and likelihood of live birth or preterm birth.

## The prevalence and pregnancy outcomes of diabetes in pregnancy using the modified International Association of Diabetes in Pregnancy Study Group's Criteria (IADPSG) at the Colonial War Memorial Hospital, Fiji

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**Introduction:** Implementing the modified International Association of Diabetes and Pregnancy Study Group's criteria (IADPSG) at the CWM hospital, Suva, Fiji will imply an increase in the prevalence and will incur a significant impact on workload and resources but these drawbacks will be offset if diagnosing these high risk individuals improves pregnancy outcomes.

**Aim:** To determine the prevalence, maternal and fetal outcomes of diabetes in pregnant women diagnosed using the modified IADPSG criteria.

**Method(s):** A retrospective descriptive review of all pregnant women who were diagnosed with diabetes using the modified IADPSG criteria and delivered at the CWM hospital Maternity Unit over a 12 month period from June 2013 to May 2014. The prevalence rate and categorial data were expressed as percentage and continuous data as mean with the 95% confidence interval calculated. A one tailed exact *P* value  $\leq 0.05$  was used as a test of significance and odds ratio as a measure of association.

**Results:** A total of 8628 women who delivered during the study period and 301 recorded to have diabetes, 255 medical files were retrieved for analysis. The prevalence rate for the study period was 3.35%. IADPSG diabetic women were younger, educated and had two to four children. Fijian of Indian descent women have a higher risk of developing diabetes (*P* value  $< 0.0000001$ ). 63% were obese and 34% had

no risk factor for diabetes. 58% of these women were on diet however 40% required additional insulin. IADPSG diabetic women have an increased risk of having a caesarean section (OR = 2.257; 95%CI: 1.719, 2.947), induction of labor (OR = 44.06; 95%CI: 33.35, 58.5), developing hypertensive disorders of pregnancy (OR = 4.682; 95% CI: 3.34, 6.47) and stillbirth (OR = 13.08; 95% CI: 7.65, 21.7).

**Conclusion:** Adopting the modified IADPSG criteria at the CWM hospital increased the prevalence rate to 3.35% but will identify high risk women who are at increase risk of adverse pregnancy outcomes.

### Clomiphene citrate vs letrozole in the treatment of anovulatory infertility: A randomized controlled trial

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**Introduction:** Ovulatory dysfunction accounts for 20–25% of the cases of infertility. The main treatment modality for anovulatory infertility is ovulation induction. Clomiphene citrate (CC) (a selective estrogen receptor modulator) and letrozole (LET) (an aromatase inhibitor) are the drugs of choice but a debate is ongoing as which is the best choice for first line treatment.

**Objective:** Compare the treatment outcome of anovulatory infertile females by clomiphene citrate and letrozole.

**Method:** A prospective randomized controlled trial including two groups of anovulatory subfertile patients was carried out in a tertiary care center and subjects were selected following inclusion and exclusion criteria. Patients were randomized to either clomiphene citrate 50 mg ( $n = 127$ ) or letrozole 2.5 mg ( $n = 121$ ) daily from the 2nd to 6th day of the menstrual cycle. Follicle number on day 12, endometrial thickness, pregnancy rates and multiple pregnancies were assessed. The data were analyzed using MINITAB 14.

**Results:** Mean age of the clomiphene citrate and letrozole treated patients groups were not significantly different ( $30.7 \pm 3.98$  and  $31.28 \pm 4.16$ ,  $P = 0.312$ ). The number of mature follicles number on day 12 was not significantly different in two treatment groups (CC:  $1.323 \pm 0.935$  and LET:  $1.175 \pm 0.797$ ) However, the mean endometrial thickness of the letrozole treated patients ( $0.7691 \pm 0.0887$  cm) was significantly higher than the clomiphene treated group ( $0.695 \pm 0.134$  cm). The clinical pregnancy rate of the letrozole group was higher than the clomiphene treated group (49%

vs. 38%) and there was no difference in the miscarriage rates (both 16%).

**Conclusions:** Letrozole treatment has enhanced the endometrial thickness compared to the clomiphene citrate treatment with higher clinical and ongoing pregnancy rates. Even though both treatment resulted in no difference in mature follicle number, the higher pregnancy rates with letrozole may be due to its favorable effects on endometrial thickness and the endometrial receptivity owing to known less anti estrogenic properties of letrozole compare to clomiphene citrate.

### Contraceptive uptake among postpartum women delivering in CWM Hospital, Fiji Islands: A four-month KAP study (May to August 2016)

*Brian F. Guevara*

**Introduction:** Unbooked and unplanned pregnancies are problems encountered worldwide. Few studies in Fiji have been undertaken to ascertain the level of unmet need for family planning among women. This study aims to gain insight into postpartum women, especially in relation to their choice of family planning and underlying reasons behind them. It also assessed the unmet need for family planning among them.

**Method:** This is a KAP Study, conducted from May to August 2016. Eligible were all women who delivered live babies in the CWM hospital in this period. The women were randomly selected within 5 days of delivery and ask if they would like to participate in the study. If they agreed, a structured interview was conducted. The data was de-identified, tabulated, and data frequencies were noted in absolute numbers and frequencies. This was then run through MedCalc for statistical analysis.

**Results:** There were 202 women included in the study, with majority being i-Taukei women (78%), followed by Fijian-of-Indian descent (14%). Just under half are under 26 years old (46%). Majority of contraceptive counseling was done by nurses (40.5%). In terms of previous contraception use, only 41% had a positive history; 119 women had never tried any family planning. For the future, 62% wanted to take some form of family planning and the most favored method was jadelle implant. However 32% were undecided at time of interview. Only one woman was unbooked in

the study, with 28% booking in the first trimester. Planned pregnancies accounted for 49%, while the rest were unplanned – 20% mistimed and 31% unwanted. The unmet need for family planning in postpartum women in CWMH was calculated to be 48.9%. The most common risk factors for unplanned pregnancies were being single (OR 13.5), under 21 years of age (OR 6.6), currently studying (OR 4.9), and booking in the 3rd trimester (OR 2.8).

**Discussion:** It is recommended that the focus of family planning counseling be centered on the woman and her needs. Husbands and relatives may be included in the counseling should she allow it. Knowing the risk factors of unplanned pregnancies, family planning policies should be targeted at these at-risk women. If the population of the study is expanded to include all women (and not just postpartum), and the study be conducted in multiple centers with multiple investigators, then a more accurate picture of unmet need for family planning representative of women in the reproductive age group can be derived.

**Key Words:** Contraception, Unmet Need, Postpartum women, CWM Hospital.

## Emergency peripartum hysterectomy at a Tertiary Care Hospital: A five-year analysis

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**Aim:** The aim of this study was to analyze the cases of emergency peripartum hysterectomy in relation to its cause, maternal and fetal outcomes.

**Methods:** A hospital based descriptive cross-sectional observational study was carried out in patients who underwent emergency peripartum hysterectomy at National Medical College and Teaching Hospital, Birgunj, Nepal from July 2011 to July 2016. Data were collected from the statistics section of hospital.

**Results:** There were 29 maternal survivals out of 33 cases of emergency peripartum hysterectomy, among which 21 cases were of subtotal and rest 11 had undergone total hysterectomy. The incidence of

emergency peripartum hysterectomy was found out to be 0.2%. Most of the women who had undergone hysterectomy were of high parity ( $\geq 4$ ) and advanced maternal age. Mean age of hysterectomy was 27 years. Major indications for hysterectomy were uterine rupture ( $n = 13$ , 40%) followed by uterine atonicity ( $n = 11$ , 33%), placental complications ( $n = 8$ , 24%) and uterine inversion ( $n = 1$ , 3%). Three-fourth of women who underwent hysterectomy for placental complications had history of previous caesarean section. Emergency peripartum hysterectomy following caesarean section was 19 (57.6%) and the rest 14 (42.4%) had delivered vaginally. All patients invariably needed blood transfusion. Twenty-six women (79%) having the procedure were referred cases and 7 (21%) booked cases had hysterectomy done.

**Conclusion:** Emergency peripartum hysterectomy is a necessary technique reserved to save a dying mother. Adapting small family norms, proper ante-natal checkups and hospital delivery can greatly reduce its occurrence.

**Keywords:** caesarean section; fetal outcome; hysterectomy; postpartum hemorrhage; pregnancy outcome.

## Knowledge, attitude and practices on long-acting reversible contraception in women admitted to North Okkalapa General and Teaching Hospital

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**Introduction:** The present situation of knowledge, attitude and practice on long-acting reversible contraception in women, admitted to Obstetric and Gynecological ward of the North Okkalapa General and Teaching Hospital, were assessed.

**Aim:** To find out the knowledge, attitude and practice on long-acting reversible contraception among the women admitted for tubal sterilization procedure at North Okkalapa General and Teaching Hospital (NOGTH).

**Methods:** It was a hospital-based cross-sectional descriptive study (Quantitative approach) in Obstetric and Gynecological ward at NOGTH from January, 2016 to December, 2016. After consents were taken, 130 women were interviewed with structured questionnaires to find out demographic and reproductive characteristics as well as knowledge, attitude and practice on long-acting reversible contraception.

**Results:** Among 130 participants, the majority (40 percent) were women with age between 36 to 40 years and dependent housewife (75.4 percent). More than half of the women (54.6 percent) planned to have tubal sterilization during caesarean section. Regarding knowledge on LARC, Injection DMPA were 100 percent known, 93.8 percent knew about IUD and 90 percent had heard implant. However, most women had lowest knowledge level on LARC (71 of 130 women). Out of total knowledge score 29, 54.6 percent of women were in the lowest group, score 0 to 15. For attitude on LARC, they had good attitude level (69 of 130 women). Most patients had awareness to consult the skillful persons and LARC are effective in preventing pregnancy. Regarding contraceptive practice, 21.54 percent of participants admitted for sterilization (28 of 130 women) had never used long-acting reversible contraception before. The most commonly used LARC method is injection DMPA (76.9 percent) and IUD had been use in 9 women (6.9 percent) and only 2 (1.5 percent) had used implant.

**Conclusion:** In this study, although women had been familiar with LARC methods and awareness of these methods, correct knowledge on these LARC methods seemed to be limited and their usage were still low. Therefore, more effective distribution of information and communication about modern LARC methods still needed to be promoted and implemented in order to improve knowledge, attitude and practice on LARC methods. By increasing awareness on LARC as well as their practice, effective reduction in unwanted pregnancy and its complication can be achieved and rate of regrets after permanent tubal sterilization may become much lower than before.

## Anti-Mullerian hormone as a diagnostic marker in Mongolian Infertile women with polycystic ovary syndrome

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**Key words:** Polycystic ovary syndrome (PCOS), Anti-Mullerian hormone, Mongolian infertile women.

**Background:** Polycystic ovarian syndrome (PCOS) is an endocrine disorder affecting 5–10% of reproductive-age women worldwide. A complete understanding of the underlying path-physiology of PCOS is still lacking. Because of the heterogeneity of this disorder, there are most likely multiple underlying path-physiological mechanisms. Approximately 74% of women with PCOS seeks pregnancy assistance, including induced ovulation, insemination or in vitro fertilization (IVF). In Mongolia there is almost no study on PCOS related infertility and there are increasing trend infertility among reproductive aged women with PCOS, lead us to conduct the study.

**Objectives:** To estimate the incidence of PCOS and to study the clinical and biochemical characteristics of PCOS among infertility women.

**Methods:** We enrolled women with more than year of infertility who seeks care in our infertility and reproductive center between the 2018–2019. Total 1560 infertile women (18–45 years) have been tested for questionnaire, hormonal assays, clinical and ultrasound examination. This study was approval by the Ethics Committee of Mongolian National Center for Maternal and Child Health. We found out 77 PCOS patients according to Rotterdam criteria and only 51 cases can be analyzed due to missing data or loss of follow up and 26 age matched controls. We compare clinical biochemical and hormonal factors between two groups. We used the case control study.

**Results:** The incidence of PCOS among 1560 infertile women is 4.9%. Mean age of the patients were  $27 \pm 3.5$  year, duration of infertility  $4.0 \pm 2.1$  year, BMI  $26.7 \pm 6.5$ , overweight 27.9% and 27.9% of them were obese. Our study shows that clinical and hormonal findings 95 percent oligo/anovulation was observed among PCOS group, 46 percent had clinical hyperandrogenism (total testosterone wasn't elevated). As a result of hormone assays were LH  $8.9 \text{ IU} \pm 3.5$ , LH/FSH  $1.6 \pm 0.83$  [0.1–3.6], AMH  $8.1 \text{ ng/mL} \pm 4.7$  /2.9–21.0/. In PCOS group serum LH/FSH ration was 2.2 times higher than none PCOS group. In terms of BMI ( $P = 0.007$ ), serum LH ( $P = 0.004$ ) and AMH ( $P = 0.001$ ) were significantly different between two groups. Biochemical examination resulted that mean fasting glucose  $5.1 \text{ mmol/L} \pm 1.7$ , mean LDL-  $2.5 \text{ mmol/L} \pm 0.86$ , mean HDL  $1.2 \text{ mmol/L} \pm 0.49$ , mean cholesterol level  $4.6 \text{ mmol/L} \pm 0.63$  and mean three-glyceride  $1.6 \text{ mmol/L} \pm 0.7$  in PCOS group with overweight and obesity women. Ultrasound examination showed that mean basal follicle number were  $21.1 \pm 1.8$ .

**Conclusion:** We found out 77 (4.9%) cases of PCOS among 1560 infertile women.

- In phenotype A group three indicators were positive. It was 39% and AMH level was highest. In phenotype D group two indicators (OA + PCO) were positive. They were 55.8% of frequency.
- Oligo or anovulation was 95.4%, hyperandrogenism was 46.2% (total testosterone was not elevated). In PCOS group serum LH/FSH ration was 2.2 times higher than none PCOS group.
- In terms of BMI ( $P = 0.007$ ), serum LH ( $P = 0.004$ ) and AMH ( $P = 0.001$ ) were significantly different between two groups.