

# Implanon Use in Rajavithi Hospital

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**Objective:** To study menstruation pattern, side effects and continuation rate of Implanon Implants in 1 year.

**Study design:** Retrospective descriptive study.

**Setting:** Family Planning Unit, 4th floor, Outpatient Building, Rajavithi Hospital.

**Material and Method:** 247 women who had implants at the Family Planning Unit from November 2001-April 2004. Data was obtained from medical records.

**Results:** Of women 247 who had Implanon implants

1. Menstrual abnormalities affected most women at some time during use of the implant. Amenorrhea was 52.2 and 53.0 percent in months 6 and 12 respectively.

Irregular menstruation was 25.5 and 19.4 percent in months 6 and 12 respectively.

2. The continuation rate were 100 and 100 percent at the end of 6 and 12 months respectively.

**Conclusion:** The most common side effect is menstrual abnormality.

The most common pattern of menstrual abnormality is amenorrhea.

**Keywords:** Implanon, Continuation rate, Side effects, Rajavithi Hospital

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## **A Study of Pregnancy Outcomes in Young Adolescent ≤ 15 Years Women**

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**Objective:** *The aim of study was the outcomes of adolescent in pregnancy age d" 15 years in Chulalongkorn hospital.*

**Material and Method:** *Medical record of Department of Obstetric and Gynecology from January 1, 1994 to December 31, 2004 were reviewed and identified from obstetric database, at delivery, obstetric discharge summary of adolescent in pregnancy age d" 15 years and statistically analyzed.*

**Results:** *Of 340 adolescent in pregnancy age d" 15 years, mean age this study was  $14.5 \pm 0.7$  years, mean gestational age was  $37.5 \pm 2.6$  wks and was primigravida 95.6%, total weight gain of pregnancy was  $11.8 \pm 5.8$  kgs., hematocrit was  $34.5 \pm 3.9\%$ , the route of delivery; vaginal delivery 72.7%, cesarean section 12.1%, forceps extraction 11.5%, vacuum extraction 4.1%, and then compared with group of patient that ANC < 4 the result was preterm labor and birth weight of group ANC < 4 less than the group ANC e" 4 and the hospital stay of the newborn in group ANC < 4 was longer*

**Conclusion:** *From this study the outcomes were the database that reference to younger adolescent pregnant, to concern in antenatal care women.*

**Keywords:** *Adolescent pregnancy*

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## Resident Presentation

# Prevalence of Abnormal Cytologic Finding of Papanicolaou Smear in Postmenopausal Women at Srinagarind Hospital

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**Objective:** To determine the prevalence of abnormal cytologic findings (including inflammation, infection and neoplasm) in postmenopausal women.

**Study design:** Descriptive study.

**Setting:** Gynecology out-patient clinic, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University.

**Material and Method:** A retrospective review of demographic data and cytological report of Pap smear (in the 2001 Bethesda system) were conducted of 513 postmenopausal women from January 1, 2003 to December 31, 2003.

**Outcome measure:** Prevalence of abnormal cervical cytologic findings of Pap smear.

**Results:** Among the 513 postmenopausal women being recruited to the present study, 264 cases (51.46%) were diagnosed with abnormalities cervical cytology. There were inflammation 209 cases (40.74%), infection 46 cases (8.97%), ASC-US 4 cases (0.78%), ASC-H 1 case (0.19%), LSIL 1 case (0.19%), HSIL 1 case (0.19%) and squamous cell carcinoma 2 cases (0.39%). For over 60 years old women, there were 70 cases (46.35%) with abnormalities cervical cytology including inflammation/ infection 67 cases (44.37%), ASC-US 1 case (0.66%), HSIL 1 case (0.66%) and squamous cell carcinoma 1 case (0.66%). For less than 60 years women, there were 194 cases (53.6%) with abnormalities cervical cytology including inflammation/infection 188 cases (51.93%), ASC-US 3 cases (0.83%), ASC-H 1 case (0.28%), LSIL 1 case (0.28%) and squamous cell carcinoma 1 case (0.28%).

**Conclusion:** The prevalence of abnormal cytologic findings of Pap smear in postmenopausal women at Srinagarind Hospital was 51.46%. There are also found abnormal cervical cytology in age over 60 years same as in younger postmenopausal group. Therefore, this should be continuation annually screening cervical cytology.

**Keywords:** Papanicolaou smear (Pap smear), Abnormal cytologic finding, Postmenopause

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## **Placental Weight and Its Ratio to Birth Weight in Normal Pregnancy at Songklanagarind Hospital**

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**Objective:** To quantify placental weight and its ratio to birth weight in normal pregnancy.

**Study design:** Prospective, cross-sectional study

**Material and Method:** From January 1<sup>st</sup>, 2004, to December 31<sup>st</sup>, 2004, placentas were obtained from 238 normal pregnancies, between the 36<sup>th</sup>-40<sup>th+6</sup> gestational weeks. The trimmed and drained placenta was weighed and the mean placental weight at term was defined. Distribution curves for placental weight and their ratios with gestational age were constructed. The outcomes for the intrapartum and perinatal periods were compared with normal placental weight, its ratio to the group above the 90<sup>th</sup> percentile and below the 10<sup>th</sup> percentile. Fisher's Exact Test was used to analyze the data. A P value < .05 was considered significant.

**Results:** The placental weight increased according to the birth weight ( $r=0.450$ ,  $P<0.005$ ). The mean placental weight at 36-40<sup>th+6</sup> gestational age was 519 g (SD = 89.01g). The mean placental weight to birth weight ratio was 17.08%. This ratio decreased slightly with advancing gestational age. There was an association between placental weight below the 10<sup>th</sup> percentile and fetal distress ( $P=0.003$ ). Placental weight to birth weight ratio below the 10<sup>th</sup> percentile was also associated with fetal distress ( $P=0.02$ ). Placental weight above the 90<sup>th</sup> percentile was associated with newborns requiring neonatal intensive care admission ( $P = 0.016$ ).

**Conclusion:** The placental weight increased according to the birth weight. The placental weight to birth weight ratio decreased slightly with advancing gestational age.

**Keywords:** Placental weight, Birth weight, Pregnancy outcomes

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## **Non-Compliance to Clinical Practice Guideline for Screening of Gestational Diabetes Mellitus in Siriraj Hospital**

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**Objectives:** *To evaluate the rate of non-compliance to clinical practice guideline for screening of gestational diabetes mellitus (GDM) and related factors in Siriraj Hospital*

**Study design:** *Cross-sectional study.*

**Setting:** *Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University.*

**Material and Method:** *A total of 159 pregnant women who were at risk for GDM who delivered at Siriraj Hospital were enrolled. Data were collected from medical records including baseline characteristics, clinical risk factors of GDM, compliance to guideline, being a private case. Rate of non-compliance and related factors were evaluated.*

**Results:** *The rate of non-compliance to clinical practice guideline for screening of GDM in Siriraj Hospital was 22%. The rate was highest among women who had antenatal care at private clinic (82.1%), followed by private case at the hospital (40%). Those who received antenatal care at the hospital showed the least non-compliance rate of 6.6%. The most common neglected risk factor was maternal age  $\geq 30$  years.*

**Conclusion:** *The rate of non-compliance to clinical practice guideline for screening of GDM in Siriraj Hospital was 22%. Highest non-compliance rate was found among private cases. The most common neglected risk factor was maternal age  $\geq 30$  years.*

**Keywords:** *Clinical practice guideline, Gestational diabetes mellitus, Screening program.*

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# Two-year Survival Rate of Recurrent Cervical Cancer Patients

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**Objective:** To study 2-year survival rate of cervical cancer patients who had recurrence.

**Study design:** Retrospective descriptive study.

**Setting:** Department of Obstetrics and Gynecology, Bangkok Metropolitan Administration Medical College and Vajira Hospital.

**Subjects:** Recurrent cervical cancer patients who were treated in the Gynecologic Oncology Unit between 1992 and 2003.

**Intervention:** The subjects were identified from the Gynecologic Oncology Unit tumor registry record. The pathological and clinical data including the follow-up information were recorded.

**Main outcome measure:** Two-year survival rate of recurrent cervical cancer.

**Results:** During the studied period, 144 recurrent cervical cancer patients were identified. Mean age of the patients was 52 years. The median time from complete primary treatment to disease to recurrence was 14.8 months. Most patients had previous stage III disease, 72 patients (50.0%). The most common histopathology was squamous cell carcinoma (72.9%). Approximately half of the recurrences were only local (73 cases or 50.7%) while distal recurrences were also encountered in 71 cases or 49.3%. Overall 109 patients received treatment for their recurrences: radiation alone (55 cases, 38.2%), chemotherapy (31 cases, 21.5%), chemotherapy and radiation (18 cases, 12.5%), surgery (5 cases, 3.5%), while 35 cases (24.3%) had only supportive treatment. Two year survival rate of the whole group was 18.5%. The patients with only local recurrence had 2-year survival rate of 22.2% compared to 14.6% in those with distant recurrence. ( $p=0.2454$ ). Two year survival rate of those who received any kinds of treatment was 22.4% compared to 4.0% in those who received only supportive treatment ( $p=0.0138$ ).

**Conclusion:** Two year survival rate of recurrent cervical cancer was low, especially in those who received only supportive treatment.

**Keywords:** Recurrence cervical cancer, 2 year survival rate

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## **Efficacy of Selective COX-2 Inhibitor on Controlling Irregular Uterine Bleeding in DMPA Users**

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**Objective:** To evaluate the efficacy of valdecoxib and placebo on controlling irregular uterine bleeding in depot-medroxyprogesterone acetate (DMPA) users.

**Study design:** Double blind randomized controlled trial.

**Setting:** Family Planning Clinic, King Chulalongkorn, Memorial Hospital, Bangkok, Thailand

**Material and Method:** A total of 51 DMPA users attending the Family Planning Clinic, Chulalongkorn Hospital, were enrolled. However, five were dropped out of the study because of loss of contact. All subjects had abnormal bleeding. These participants were randomly divided into two groups. A total of 22 users received valdecoxib, 40 mg, once a day for 5 days, and placebos were given to the other 24 in the same manner. The number of treatment days required for stopping the bleeding episode, percentage of women in whom bleeding was stopped in 7 days, total number of bleeding-free days, length of the bleeding-free interval after the initial treatment, were analyzed in the first and fourth week.

**Results:** The percentage of subjects in whom bleeding was stopped during the first week after initial treatment and the mean of the bleeding-free days during 28 days of follow-up was significantly higher in the valdecoxib group than the placebo group; 77.3%, 33.3%;  $p < 0.01$  and 17.8 days, 11.5 days;  $p < 0.05$ , respectively. The mean number of treatment days required for stopping the bleeding episode in valdecoxib-treated group was 1.7 days and mean bleeding-free interval in valdecoxib-treated group was 18.6 days.

**Conclusion:** Valdecoxib is effective in short-term control of irregular bleeding in DMPA users and mechanism of NSAIDs to reduce endometrial bleeding is may be from COX-2 inhibition.

**Keywords:** Depo-medroxyprogesterone acetate (DMPA), Valdecoxib

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## Resident Presentation

# A Comparison of Surgical Hand Scrub Method between use of a Scrub Brush Versus Antiseptic Soap Alone

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**Objective:** To compare the effect of use of a scrub brush versus antiseptic soap alone in reducing hand bacterial counts at 45 minutes after hand scrubbing.

**Study design:** Cross over design.

**Setting:** Department of Obstetrics and Gynecology, Faculty of Medicine, Ramathibodi Hospital, Bangkok, Thailand

**Subjects:** Thirty-seven volunteers, residents and scrub nurses were enrolled in the study.

**Material and Method:** Baseline specimens were obtained by the glove fluid sampling procedure. Subjects were selected to scrub with 4% chlorohexidine soap alone or scrub with a scrub brush and 4% chlorohexidine. Specimens were obtained after the scrub 45 minutes later. The experiment was repeated by use of a cross over design after a 1-week wash out period. The data were analyzed by McNemar's test.

**Main outcome measures:** The median of baseline bacterial counts, absolute reduction of bacterial counts.

**Results:** The median of baseline bacterial counts are  $4.1 \times 10^2$  and  $1.5 \times 10^2$  CFU/ml for soap alone and a brush, respectively. This difference was no statistically significance. The absolute reduction of bacterial counts for soap versus soap and brush showed no statistically significant difference.

The odds ratio 2.6 (95% confidence interval 0.86, 9.31) for soap alone showed that twice the number of subjects had a greater reduction in bacterial counts when they scrubbed with soap alone

**Conclusion:** The effect of use of soap alone in reducing hand bacterial counts at 45 minutes was no statistically significant difference from the use of soap and brush.

**Keywords:** Surgical hand scrub, Glove fluid sampling, Absolute reduction of bacterial counts

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# The Correlation Between Estradiol Level and Body Mass Index in Postmenopausal Women in Siriraj Hospital

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**Objective:** To examine correlation between serum level of estradiol and body mass index (BMI) in postmenopausal women

**Study design:** Cross-sectional study.

**Setting:** Menopause clinic, Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital

**Material and Method:** We reviewed 109 medical records of menopausal women attending menopause clinic, including both natural and surgical menopause. All of them did not receive any hormonal treatment. Baseline characteristics, data on serum level of estradiol, and BMI were extracted. Correlation between serum level of estradiol and BMI was evaluated.

**Results:** Of 109 patients, majority were natural menopause (81.7%). Mean estradiol and BMI were  $16.3 \pm 10.0$  pg/mL and  $23.1 \pm 3.7$  kg/m<sup>2</sup> respectively. No correlation between serum estradiol level and BMI was demonstrated ( $r=0.04$ ,  $p=0.651$ ). No correlation was observed in different type of menopause and different duration of menopause. Only weak positive correlation was observed among those with normal BMI ( $r=0.237$ ,  $p=0.064$ ).

**Conclusion:** There was no correlation between serum level of estradiol and body mass index in postmenopausal women.

**Keywords:** Estradiol, BMI, Menopause

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**Prevalence of Rh Negative Pregnant Women Who  
Attended Antenatal Clinic and Delivered in  
Rajavithi Hospital: 2000-2005**

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**Objective:** *To assess the prevalence of Rh negative pregnant women who attended antenatal clinic and delivered in Rajavithi Hospital.*

**Study design:** *Descriptive retrospective study.*

**Material and Method:** *There are 147 Rh negative pregnant women and 114 complete records were studied. The study included the general characteristic of cases, anti-D immunoglobulin prophylaxis administration, fetal anemia and hemolytic disease of the newborn.*

**Results:** *The prevalence of Rh negative pregnant women in Rajavithi Hospital was 0.31%. Fetal anemia and neonatal jaundice were detected 21.9% and 36.0% respectively. 49.1% of cases received both antepartum and postpartum anti-D immunoglobulin. Anti-D immunoglobulin prophylaxis significantly reduced incidence of neonatal jaundice ( $p < 0.005$ ).*

**Conclusion:** *The prevalence of Rh negative pregnant was 0.31%. Anti-D immunoglobulin prophylaxis is recommended in indicated cases.*

**Keywords:** *Rh negative, Anti-D immunoglobulin prophylaxis, Neonatal jaundice*

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# Risk Factors Associated with Low Apgar Scores Infants Born in Bhumibol Adulyadej Hospital

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**Objective:** To identify risk factors associated with low Apgar scores infant born in Bhumibol Adulyadej Hospital.

**Study design:** Case control Study.

**Setting:** Department of Obstetrics and Gynecology, Bhumibol Adulyadej Hospital.

**Material and Method:** 850 infants with low Apgar scores and 850 normal Apgar scores infants who were born in Bhumibol Adulyadej Hospital between January 1, 2002 and December 30, 2004 were reviewed. The risk factors associated with low Apgar scores were identified and compared between groups, using Chi square test, and logistic regression analysis.

**Main outcome measures:** The risk factors associated with low Apgar scores were maternal age, gravida, parity, weight gain during pregnancy, present of medical complications, antenatal vagina bleeding, fetal presentation, intrapartum sedative agents, meconium stained amniotic fluid, mode of delivery, time of delivery and delivery complications were reviewed and compared between group.

**Results:** 18,760 infants were born in the hospital. Using univariate analysis, the significant risk factors were maternal age (OR=3.65, 95% CI 1.33-10.67), anti-partum vagina bleeding (OR=2.50, 95% CI 1.68- 8.36), meconium-stained amniotic fluid (OR=5.44, 95% CI 1.55-7.76). Using multivariate analysis, only meconium-stained amniotic fluid was significant risk factor associated with low Apgar scores infants.

**Conclusion:** The risk factor associated with low Apgar scores infants born in Bhumibol Adulyadej Hospital was intrapartum meconium-stained amniotic fluid.

**Keywords:** Risk factors, Low Apgar scores infants, Meconium-stained amniotic fluid

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**Comparison of Neonatal Morbidity in Cesarean Section versus Vaginal Delivery for Breech Presentation at Term in Multiparous Women**

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**Objective:** To compare neonatal morbidity in cesarean section versus vaginal delivery for breech presentation at term in multiparous women.

**Study design:** Retrospective cohort study.

**Setting:** Department of Obstetrics and Gynecology, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand.

**Subjects:** 366 term singleton, complete or frank breech presentation, multiparous women delivered during 1 January 1994 to 31 December 2003.

**Intervention:** Data records were analyzed by using STATA software version 8.0.

**Main outcome measures:** Apgar score of the newborns, admission in NICU, birth trauma.

**Results:** There were 183 patients in each group. The two groups did not significantly differ in maternal age, height, weeks of gestation but the mean birth weight in cesarean section group was significantly higher than vaginal delivery (3,213 gm vs. 3,078 gm).

The frequency of Apgar scores <7 at 1 min were significantly lower in cesarean section group (9.5% vs. 28.1%, P-value=0.001) but not different at 5 min (0.5% vs. 1%, P-value=0.317). The birth trauma and admission in NICU were the same.

**Conclusion:** The frequency of Apgar scores <7 at 1 min were significantly lower in cesarean section group than vaginal delivery group for breech presentation at term in multiparous women.

**Keywords:** Breech presentation, Term, Neonatal morbidity

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**Prospective Randomized, Double-blinded, Placebo-controlled Trial of Preoperative for Pain Relief in Uterine Curettage**

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**Objective:** To evaluate the analgesic efficacy of preoperative rofecoxib in patients underwent uterine curettage.

**Study design:** Randomized controlled trial.

**Setting:** Department of Obstetrics and Gynecology, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand

**Material and Method:** This double-blinded, randomized, placebo-controlled trial included 80 women who underwent uterine curettage. Forty women were randomized assigned to rofecoxib 50 mg and 40 women to the placebo. The main outcome measure was the intensity of pain measured by visual analog scale and categorical pain scores during and after the procedure. Chi-squared, Fisher exact, Student t test and Mann-Whitney U tests were used for statistical analysis.

**Results:** The intensity of pain was not different between groups over the course of the procedure ( $p > 0.05$ ). There were no serious adverse effects in this study.

**Conclusion:** The preoperative administration of rofecoxib was not effective in reducing pain in uterine curettage.

**Keywords:** preoperation, rofecoxib, pain, uterine curettage, visual analog scale

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## **Success Rate of Second-Trimester Termination of Pregnancy Using Misoprostol**

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**Objective:** *To evaluate the efficacy and side effects of misoprostol usage for second trimester pregnancy termination in Siriraj Hospital.*

**Study design:** *Cross-sectional study.*

**Setting:** *Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University*

**Material and Method:** *Medical record of 94 pregnant women, between 14-28 weeks of gestation, who were admitted for medical termination of pregnancy were reviewed. Each patient received 400 µg of misoprostol vaginally every 12 hours as recommended by RCOG for termination of pregnancy. Main outcome measures included success rate of abortion within 48 hours, induction to abortion interval and maternal side effects.*

**Results:** *The success rate of abortion within 48 hours was 89.4%. Mean induction to abortion interval was 22.1 hours. The most common maternal side effect was fever (24.5%). The rate of incomplete abortion was 28.6%. No factor, including age, parity and viability of fetus affected the success rate significantly. No serious maternal complication was detected.*

**Conclusion:** *Misoprostol 400 µg vaginally every 12 hours can be used effectively and safely for second trimester pregnancy termination.*

**Keywords:** *Misoprostol, Second trimester termination*

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## **Effects of Radiotherapy on Sexual Activity in Women with Cervical Cancer**

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**Objective:** *To assess changes in sexual activity in women treated for cervical cancer by radiotherapy over a period of 3 to 12 months.*

**Material and Method:** *Women treated for cervical cancer were selected at 3 to 12 months post-treatment. Main outcome measured were changes of sexual activity in sexual desire, arousal, orgasm, dyspareunia, frequency and satisfaction. Comparisons were made between after radiation and before radiation.*

**Results:** *The prevalence of sexual dysfunction increased in most patients treated with pelvic radiotherapy. There were significant reduction in sexual desire, arousal, orgasm, frequency of intercourse, and satisfaction after radiation. Increase in sexual pain was common after treatment, but was not significant in deep dyspareunia. Sexual frequency was significantly correlated with FIGO staging.*

**Conclusion:** *Sexual activities were significantly reduced following radiotherapy. Educational and counseling programs on sexual activity after treatment should be provided to the patients.*

**Keywords:** *Sexual activity, Radiotherapy, Cervical cancer*

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## **Preoperative Vaginal Preparations for Abdominal Hysterectomy for the Prevention of Febrile Morbidity: Savlon Douche vs. Povidone-iodine Solution Paint**

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**Objective:** To compare the effectiveness of vaginal preparations (viz. savlon solution 1:1 000 and 1% povidone-iodine for reducing febrile morbidity after total abdominal hysterectomy (TAH).

**Study design:** Clinical trial.

**Methodology:** Patients (150) scheduled for TAH at Srinagarind Hospital were non-randomly allocated to receive savlon solution douching or povidone-iodine solution painting before TAH. All of the patients received Cefazolin (1 g) intravenously before the surgery. The principal outcome was febrile morbidity.

**Results:** The overall rate of febrile morbidity was 21 percent. The incidence of febrile morbidity in the savlon vs. povidone-iodine groups was 16 (12/75) and 25 (19/75) percent, respectively. No statistically significant difference was found between the two groups ( $p$ -value = 0.16). The odds ratio was 1.78 (95%CI 0.79 to 3.99) and adjusted odds ratio was 2.09 (95%CI 0.86 to 5.10).

**Conclusion:** The effectiveness of savlon vs. povidone-iodine in reducing febrile morbidity was not significantly different. Therefore, either technique should be used in conjunction with a prophylactic antibiotic before TAH for reducing febrile morbidity.

**Keywords:** Febrile morbidity, Total abdominal hysterectomy, Vaginal preparation

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# **Accuracy of Cervical Cancer Screening between Conventional Pap Smear and Liquid-based Cervical Cytology Smear**

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**Objective:** To evaluate the accuracy and agreement between Liquid-based cervical cytology (LBC) and Conventional Pap smear (CP).

**Study design:** Cross-sectional study

**Setting:** Department of Obstetric and Gynaecology, Faculty of Medicine Siriraj Hospital, Mahidol University

**Subjects:** A total of 458 women who attended the out patient department for cervical cancer check-up were enrolled.

**Material and Method:** In each woman conventional Pap smear was performed using VCE technique. The spatula was then placed into plastic vial containing a specific preservative solution for LBC. All specimens were prepared and interpreted by experienced cytotechnologist at Cytology unit. Interpretations were made without knowledge of the results from other technique. Results from the 2 techniques were compared for agreement and accuracy.

**Results:** The agreement of results between the 2 technique was 92.4%. There were 24 cases (5.2%) with negative Pap smear that LBC could detect cellular abnormalities, including 16 cases of ASCUS, 2 cases of LSIL, 4 cases of HSIL, and 2 cases of carcinoma. However, LBC could not detect 5 cases that showed abnormalities in CP, including 1 case of ASCUS, 3 cases of LSIL, and 1 case of HSIL.

**Conclusion:** This study showed that Liquid-based cervical cytology is high agreement and accuracy compared with conventional Pap smear. In addition, LBC can detect more abnormalities than conventional Pap smear. This can be use as an effective screening method for cervical cancer.

**Keywords:** Pap smear, Liquid-based cytology, Accuracy

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## **Preoperative Guideline for Type and Screen in Elective Abdominal Hysterectomy for Benign Conditions: Prediction of Immediate Blood Transfusion**

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**Introduction:** Preoperative blood ordering for abdominal hysterectomy should be scheduled as either type and screen (TS) or crossmatch (C) pack red cell 1 unit according to Maximum Surgical Blood Ordering Schedule (MSBOS). In order to differentiate those who need crossmatch for packed red cell from those who need only type and screen, a new guideline was developed.

**Objective:** To determine the effectiveness of the guideline and its effects on CT ratio.

**Material and Method:** Three hundred and two medical records were reviewed and patients were classified into 2 group: TS and C, according to the guideline.

**Results:** We found that positive predictive value for prediction of blood transfusion was 0.99 sensitivity, specificity, and negative predictive value were 0.94, 0.31, and 0.09, respectively. Thirty percent reduction in CT ratio when compared with crossmatch in all cases was also found if we followed the guideline.

**Conclusion:** This guideline can predict immediate transfusion in abdominal hysterectomy effectively. Therefore it should be implemented in clinical practice.

**Keywords:** Blood transfusion, Elective abdominal hysterectomy, CT ratio, Guideline

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## **Accuracy of Cervical Colposcopic Examination in Bhumibol Adulyadej Hospital**

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**Objective:** *To define accuracy of cervical colposcopic examination in Bhumibol Adulyadej Hospital.*

**Study design:** *Descriptive study, diagnostic test.*

**Setting:** *Department of Obstetrics and Gynecology, Bhumibol Adulyadej Hospital.*

**Population:** *Results of cervical colposcopic examination, colposcopic directed tissue biopsy and tissue pathology obtained between January 1, 2001 and April 30, 2005 were reviewed.*

**Main outcome measure:** *Sensitivity, specificity and accuracy of cervical colposcopic examination was reported.*

**Results:** *38,958 women were performed Papanicolaou smears. 8,132 (20.87%) had abnormal results. 624 women were proceeded to perform colposcopic examination. 431 women were performed colposcopic directed biopsy of cervix. 109 women were obtained tissue pathology either by cervical conization or hysterectomy. The sensitivity, specificity and accuracy of cervical colposcopic examination were 97.03%, 62.56% and 81.44% respectively.*

**Conclusion:** *The cervical colposcopic examination in Bhumibol Adulyadej Hospital yielded high sensitivity. This procedure was the useful method as the diagnostic aid for carcinoma of cervix in patients with abnormal Papanicolaou smear.*

**Keywords:** *Cervical colposcopic examination, Carcinoma of cervix, Papanicolaou smear*

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## Resident Presentation

# **Analgesic Effect of Etoricoxib in Secondary Dysmenorrhea: A Randomized, Double-Blind, Crossover, Controlled Trial**

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**Objective:** To determine the efficacy of etoricoxib in the treatment of secondary dysmenorrhea.

**Study design:** A randomized, double-blind, crossover, controlled trial

**Setting:** Department of Obstetrics and Gynecology, Faculty of Medicine Chulalongkorn University

**Material and Method:** Twenty-four women were randomly assigned to receive single oral doses of etoricoxib 120 mg, mefenamic acid (500 mg) every 8 hours and placebo at the onset of moderate to severe pain associated with menses for 3 days. During 3 consecutive menstrual cycles in this double-blind, 3-period, crossover study, pain intensity and pain relief were assessed over the 8-hour period following dosing, and global ratings of therapy were made at 8 and 24 h after dosing. Tolerability was assessed by spontaneous reports of adverse experiences.

**Results:** Etoricoxib 120mg provided analgesic efficacy superior to placebo for the summed pain intensity difference over 8hour (SPID8,  $p=0.005$ ), and total pain relief over 8 hour (TOPAR8,  $p<0.05$ ), and all secondary endpoints were not distinguishable from mefenamic acid. No serious or unexpected adverse study events were reported and no women withdrew from the study because of an adverse event. Adverse events were infrequent and there were no clinically significant differences among the treatments except mefenamic acid treatment had a significantly higher epigastric pain than etoricoxib treatment ( $p<0.05$ ).

**Conclusion:** Single daily dose of Etoricoxib 120 mg was significant to placebo and as efficacious as mefenamic acid in management of secondary dysmenorrhea. Therefore, it was effective and well tolerated for the treatment of secondary dysmenorrhea.

**Keywords:** Etoricoxib, Mefenamic acid, Secondary dysmenorrhea, Analgesic effect

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**Risk Factors of Perinatal Asphyxia in Pregnancy  
Gestational Age Over 37 Complete Weeks by  
Apgar Score Less Than 7 at 5 Minutes**

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**Objective:** To identify the risk factors of perinatal asphyxia in pregnancy gestational age over 37 complete weeks.

**Study design:** case-control study.

**Material and Method:** The delivery records of pregnancies over 37 complete weeks delivered at Rajavithi hospital between January 1, 1999-June 30, 2005 were chosen by simple random sampling. 130 newborns Apgar score less than 7 at 5 minutes and 260 newborns Apgar score 7 or more at 5 minutes were recruited for analysis.

**Results:** The results of this study reveal numbers of risk factors strongly associated with perinatal asphyxia of gestational age more than 37 complete weeks are as followed :- prolapsed cord ( $p<.001$ ), vaginal breech delivery ( $p<.001$ ), abnormal fetal heart rate pattern ( $p<.001$ ), meconium stain amniotic fluid ( $p<.001$ ), oligohydramios ( $p<.001$ ), SGA( $p<.001$ ), prolonged PROM( $p<.001$ ), no antenatal care ( $p<.001$ ), hypertensive ( $p<.001$ ), oxytocin used ( $p<.001$ ), analgesic used ( $p<.001$ ), vacuum extraction( $p<.01$ ), gestation diabetes( $p<.01$ ), anemia( $p<.01$ ), postterm ( $p<.05$ ). The results of stepwise multiple logistic regression analysis have shown that gestation diabetes, prolonged PROM, no antenatal care, oligohydramios and meconium stain amniotic fluid increase incidence of perinatal asphyxia 19.70, 13.09, 12.03, 7.81 and 3.21 times respectively. Gravida, occupation, previous abortion, cesarean section and Forceps extraction were not associated with perinatal asphyxia. 13.08% of newborns who had Apgar score 0-3 (severe depression) succumbed by early neonatal death (5.38%) and neurological deficit (30.77%). Newborn Apgar score 4-6 (mild depression) was noted 86.92% of cases, 62.31% required assisted respiration.

**Conclusion:** The health personal should collaborate and pay attention to all significant risk factors in order to prevent the jeopardized outcome.

**Keywords:** Perinatal asphyxia, Apgar score

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## Resident Presentation

# Usage of Prophylactic Antibiotics in Uncomplicated Gynecologic Abdominal Surgery in Siriraj Hospital

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**Objectives:** To determine the usage of prophylactic antibiotics in uncomplicated gynecologic abdominal surgery in Siriraj Hospital after guideline implementation.

**Study design:** Cross-sectional study.

**Setting:** Division of Gynecology, Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University.

**Subject:** A total of 258 women who underwent gynecologic surgery for benign condition were enrolled.

**Material and Method:** The patients were divided into 2 groups, before and after guideline implementation (control and study group). The medical records of these women were reviewed to determine the usage of prophylactic antibiotics, rate of complication and cost.

**Results:** The most common prophylactic antibiotics used were Cefazolin (41.9%), Cefoxitin (36.4%), Augmentin (9.7%). Rate of multidose antibiotic usage were not significantly different between the 2 groups (82.9% and 83.7% respectively,  $p=0.482$ ), both in staff and resident. However, the rate of postoperative oral antibiotic usage was significantly decreased (31.8% and 14.7% respectively,  $p=0.001$ ). The reduction of oral antibiotic used was significant among staff only. The rate of complications between control and study groups, as well as between single and multidoses antibiotic prophylaxis were similar. Had a single dose of cefazolin been administered to all patients, the antibiotic cost would have been reduced by 84,157 Baht or 90.3%.

**Conclusions:** Rate of multidose antibiotic prophylaxis in gynecologic surgery were similar to before guideline implementation. However, postoperative oral antibiotics usage decreased significantly, especially among staff.

**Keywords:** Prophylactic antibiotics, Gynecologic abdominal surgery

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# Risk Factors for Emergency Peripartum Hysterectomy

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**Objective:** To identify risk factors associated with emergency peripartum hysterectomy.

**Study design:** Case control study.

**Setting:** Department of Obstetrics and Gynaecology, Bhumibol Adulyadej Hospital, Bangkok, Thailand.

**Subjects:** 43 cases of emergency peripartum hysterectomy and 172 cases of controlled delivery between June 1995 and July 2005.

**Main outcome measures:** Risk factors associated with emergency peripartum hysterectomy

**Material and Method:** The medical records of 43 patients who underwent emergency peripartum hysterectomy between June 1995 and July 2005 were analyzed and retrospectively compared with the medical records of 172 controlled cases. Both groups had their babies delivered during the same period of times (case:control=1:4). The medical records were reviewed for demographic data, route of delivery, labor characteristic, indication for hysterectomy, intraoperative and postoperative complications. Cases and controls were compared with Chi-square test and Fisher's exact test and logistic regression were used to calculate the odds ratio (OR) with the 95% confidence interval (CI) for risk factors.

**Results:** Total deliveries were 75,244 cases. For mode of deliveries, 23.3% were normal deliveries, 67.4% were cesarean section, 9.3% were vacuum extraction. Incidence of peripartum hysterectomy was 0.57 per 1,000 deliveries. Indications for peripartum hysterectomy were uterine atony (53%), uterine laceration (16%) and placenta adherens (13.9%). The intraoperative complications were ureter and bladder injuries (6.8%). The postoperative morbidities were septicemia (4.6%), fever (2.3%), coagulopathy (2.3%), and partial gut obstruction (2.3%). There was one maternal death. The cesarean delivery was the significant risk factor for emergency peripartum hysterectomy (OR 6.412, 95%CI 3.10-13.26).

**Conclusion:** Cesarean delivery is a significant risk factors for peripartum hysterectomy

**Keywords:** Emergency peripartum hysterectomy, Risk factors

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## **Randomized Controlled Trial of Glove Perforation in Single and Double Gloving in Cesarean Section**

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**Objective:** *The purposes of this study were to determine the frequency of glove perforation between single-gloving and double-gloving methods in cesarean section.*

**Material and Method:** *Between December 2004 and March 2005. The prospective randomized controlled trial study was conducted at Department of Obstetric and Gynaecology, Faculty of medicine, Ramathibodi Hospital, Bangkok.*

*The randomized selection of surgeons for single- and double-gloving methods was performed. All glove sets were tested by filling each glove with water for detecting of glove perforation. The glove perforation rate, position of perforation, time of operation, estimated blood loss and the surgeon's levels of experience were analyzed*

**Results:** *One hundred and fifty sets of double-gloving method and one hundred and fifty sets of single-gloving method were tested. The glove perforation rate was 1.3% and 6.7% in double-inner and single gloves, respectively, with statistical difference (P-value = 0.018). There is no statistical difference between the glove perforation rate in single glove (6.7%) and in double-outer gloves (8 %). There was matched perforation of the same finger of both inner and outer gloves in 1.3% of all double inner gloves. The surgeon's levels of experience, time of operation, estimated blood loss, fetal birth weight, indication for surgery was no difference in both group.*

**Conclusion:** *Double-gloving method offers considerable protection against exposure to contaminants in blood and body fluids of the patient, when compared with the single-gloving method in cesarean section.*

**Keywords:** *Double-gloving, Single-gloving, glove perforation, Cesarean section*

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## **Mental Health of Residents During Obstetrics and Gynecology Training in Thailand**

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**Objective:** *To evaluate mental health status of residents during Obstetrics and Gynecology training and identify the factors that affect mental health problems.*

**Material and Method:** *During January-April 2003, 259 Obstetrics and Gynecology residents were asked to complete a self-administered questionnaires composed of demographic data, workload, self-report of life stressors, and the Thai Mental Health Questionnaires (TMHQ-70).*

**Results:** *One hundred and sixty completed questionnaires (62% of total) were received. The prevalence of mental health problems was 29% (46/160). Somatization and social function problem were found in the first and second rank (18.1% and 11.9%), respectively. A resident who was younger than 25 years old, has married, cared for more than 20 patients in the labor room, performed more than 10 academic activities per year, or attended more than 5 examinations per year were at higher risk to develop social functioning problems.*

**Conclusion:** *One-third of residents training in Obstetrics and Gynecology have faced mental health problems - somatization, depression, anxiety and social function. The significant risk factors associated with social function problems were younger age, marriage and excessive workload.*

**Keywords:** *Mental health, Residents, Obstetrics and Gynecology training*

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## **Prevalence of Endometriosis in Infertility Undergo Laparoscopy at Srinagarind Hospital**

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**Objectives:** 1. To assess the prevalence of endometriosis in infertile women undergo laparoscopy at Srinagarind Hospital.

2. To assess the characteristics of endometriotic patients regarding clinical manifestations, results of laparoscopic findings.

**Setting:** Department of Obstetrics and Gynecology, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University.

**Material and Method:** Medical and laparoscopic surgical records of 106 infertile patients who underwent diagnostic laparoscopy from January 1, 2000 to December 31, 2002 were retrospectively evaluated.

**Main outcome measures:** The prudent indicators used in this study were the prevalence of endometriosis, clinical manifestation, results of investigations.

**Results:** The prevalence of endometriosis in infertile women who underwent diagnostic laparoscopy at Srinagarind Hospital during the study period was 76.41% which consist of minimal endometriosis 31.13%, mild endometriosis 22.64%, moderate endometriosis 15.09%, and severe 7.55%. This study revealed the mean age of 31.91 years. The most presentation symptoms were dysmenorrhea 42.45%, no symptom 38.68%, chronic pelvic pain 17.92% and dyspareunia 13.20%. The pelvic examination findings were normal 81.13%, nodularity at cul-de-sac or uterosarcal ligament 10.38%, retroflexion of uterus 3.77% and adnexal mass 2.83%.

**Conclusion:** Laparoscopy was used to evaluation 106 women who had infertility .Overall 76.41% patients were found to have evidence of endometriosis while the remainder were normal finding . This suggests that laparoscopy is valuable in evaluation of infertile women.

**Keywords:** Diagnostic laparoscopy, Endometriosis, Infertility

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# **Menopausal Symptoms and Knowledge Towards Daily Life and Hormone Replacement Therapy among Thai Menopausal Women in Bangkok**

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**Objective:** To evaluate menopausal symptoms, knowledge towards daily life and hormone replacement therapy (HRT) among Thai natural menopause women in Bangkok.

**Study design:** Cross-sectional, descriptive study.

**Subjects:** 162 natural menopause women who attended the health seminars or exhibitions except topics about menopause and HRT in Siriraj Hospital from March 2005 – June 2005.

**Material and Method:** Targeting women were asked to fill out the structured questionnaires. Data concerning personal history, menopausal symptoms, knowledge of daily life, menopause and HRT. A total of 148 questionnaires were returned for the analyses.

**Results:** Of 148 women, 141 (95.3%) had menopausal symptoms. The most common and most severe menopausal symptom were muscle and joint pains (84.5% and 23.0%, respectively). Majority of the women understood correctly regarding knowledge about menopause issue and daily life during menopause (80.6% and 89.2%, respectively). Although 51.1% of the women showed their knowledge about HRT correctly, only 8.1% were currently use HRT. The main reasons for this low percentage of HRT use were inability to tolerate the menopausal symptoms (49.0%) and lack of knowledge about HRT (48.9%).

**Conclusion:** The most common and also the most severe menopausal symptom in natural menopausal Thai women in Bangkok were muscle and joint pains. Most of them demonstrated their understandings about menopause issue and daily life and half of them demonstrated their understandings about HRT correctly.

**Keywords:** Menopausal symptoms, Daily life, Hormone replacement therapy, Bangkok

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# Risk Factors of Venous Thromboembolism (VTE) in Chulalongkorn Hospital Female Patients

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**Objective:** To estimate the risk factor of VTE among women who attended at Chulalongkorn hospital between 1 January 1995 and 31 December 2004

**Methodology:** A case control analysis using the database of female inpatients who were diagnosed with VTE and controls used healthy female patients who were attended gynecological clinic for annual check up. The questionnaires were developed to interview both cases and controls. The ratio of case per control was 1:2. The data was analysed with SPSS/PC+ version 12.0. The statistic analysis were mean, standard deviation, t-test, Odd ratio and 95%confidence interval.

**Results:** Seventy cases and one hundred and forty of controls were recruited into the study. The mean+/- SD age of case was 37.2+/- 9.3 years and the control was 35.6+/- 9.9 years. There were no significant difference in term of age, parity, weight, height and BMI between cases and controls. The Odd ratio of oral contraceptive pill use, smoking and alcohol intake were 0.94, 3.19, and 2.62, respectively. However, no statistical significance difference of Odd ratio in oral contraceptive pill use, smoking and alcohol intake were demonstrated

**Conclusion:** Smoking and alcohol intake were the risk factor of VTE in this study. Oral contraceptive pill use did not demonstrated increasing risk of VTE. However, there were no statistical significance of Odd ratio in smoking and alcohol intake. These results may be the small sample of cases. The further study should be recruited more cases in order to demonstrated the risk factors of these female patients.

**Keywords:** Venous thromboembolism, Oral contraceptive pills

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## **Effectiveness of Ginger for Prevention of Nausea and Vomiting after Gynecological Laparoscopy**

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**Objective:** To study the effectiveness of ginger for prevention of nausea and vomiting after gynecological laparoscopy.

**Study design:** Double blinded randomized placebo controlled trial.

**Setting:** Department of Obstetrics and Gynecology, Bangkok Metropolitan Administration Medical College and Vajira Hospital

**Material and Method:** From February 2005 to July 2005, 45 patients who underwent laparoscopic operations for non-cancerous gynecologic conditions were randomized into Group A (n=23) or Group B (n=22). Group A received 3 capsules of ginger (1 capsule contained 0.5 g of ginger powder) while Group B received 3 capsules of placebo, at 1 hour prior to the operation. Nausea and vomiting were assessed at 2 and 6 hours after the operation with the Visual Analogue Scores (VAS) and presence of vomiting respectively.

**Results:** Median VAS at 2 hour postoperation of Group A was not significantly different from that of Group B with the median (range) of 0 (0-5.4) and 0(0-10) respectively (p=0.55). At 6 hour postoperation, the median VAS of Group A tend to be lower than group B 1.4(0-7.4) and 3.25 (0-10) (p=0.095). Presence of vomiting at 2 hours was not different between the two groups, 13% in Group A and 18.2% in Group B (p=0.64). At 6 hours, 30.4% in group A vomited compared to 50.0% in group B (p=0.18).

**Conclusion:** Ginger tend to has efficacy for prevention of nausea and vomiting after gynecological laparoscopy at 6 hour postoperation

**Keywords:** Ginger, Nausea, Vomiting, Gynecological laparoscopy

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## **Comparison of Wound Complications Between Low Midline and Pfannenstiel Skin Incision in Obese Pregnant Women**

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**Objective:** To compare prevalence of complicated wound between low midline and Pfannenstiel incision in obese pregnant women.

**Study design:** Retrospective cohort study.

**Setting:** Department of Obstetrics and Gynaecology, Faculty of Medicine, Ramathibodi Hospital, Bangkok, Thailand.

**Subjects:** The obese pregnant women (BMI> 29) who had delivered by caesarean section and given antibiotic prophylaxis at Ramathibodi hospital during May 2000 to May 2004.

**Material and Method:** Medical records were reviewed. All analyses were processed using STATA software version 8.0.

**Main outcome measures:** Wound complications in obese pregnant women.

**Results:** Ninety seven obese pregnant women were recruited. Mean age was 32.7 years. The most frequent BMI of obese pregnant women in this study were between 29 to 35 kg/m<sup>2</sup>. Forty five pregnant women undergone low midline skin incision while 46 pregnant women undergone Pfannenstiel skin incision. Overall prevalence of wound infection was 6.67% in which of wound infection in low midline group and Pfannenstiel group were 2.2% and 4.4 %, respectively. The difference of wound infection in both groups had no statistical significance. (p-value 0.414) There was no wound dehiscence in this study.

**Conclusion:** There is no statistical significance of wound infection following low midline and Pfannenstiel skin incision in obese pregnant women.

**Keywords:** Obesity, Skin incision, Caesarean section, Wound complications

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## **Adverse Pregnancy Outcomes in Gestational Diabetes Mellitus**

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**Objectives:** To evaluate adverse pregnancy outcomes in women diagnosed with gestational diabetes mellitus (GDM) at Siriraj hospital.

**Study design:** Cross-sectional study.

**Setting:** Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University.

**Material and Method :** A total of 162 women who were diagnosed with GDM and received treatment following clinical practice guideline at Siriraj Hospital were enrolled. Data were abstracted from medical record regarding adverse pregnancy outcomes of both the mothers and their infants.

**Results:** The most common clinical risk for GDM was age > 30 years (71.6%), followed by family history of DM (50%) and obesity (29%). Majority of the women were GDM class A1 (96.3%) and only 3.7% were GDM class A2. Maternal complications were found in 35 cases (21.6%) and the most common complications were postpartum hemorrhage (10.5%), mild PIH (3.7%), and severe PIH (1.9%). The most common neonatal complication was hypoglycemia (68.5%), which occurred in all infants of GDM class A2 mothers. Macrosomia was found in 29 cases (17.9%). No significant differences in maternal and neonatal complications were found between GDM class A1 and A2.

**Conclusions:** Women with GDM who were diagnosed and treated following treatment guideline demonstrated no serious maternal and neonatal complications.

**Keywords:** Pregnancy outcomes, Gestational diabetes mellitus

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## **Survival of Cervical Cancer Patients Diagnosed with Deep Vein Thrombosis**

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**Objective:** Thromboembolism is an infrequent complication that is the leading cause of gynecologic cancer death. The purpose of the study was to compare the survival of cervical cancer patients with deep vein thrombosis (DVT) and without DVT. Minor objectives were to clarify risk factors for DVT in cervical cancer patients and variables that affect with the survival of cervical cancer patients

**Material and Method:** We retrospectively reviewed the data base of cervical cancer with Deep Vein Thrombosis (DVT) and classify as DVT group and cervical cancer patients who were not developed DVT (control group) who was diagnosed at the department of Obstetrics and Gynecology of Songkhlanakarind hospital between 1995 to 2004. Data were collected regarding age, stage, histology, treatment, recurrence and onset of DVT diagnosis. Descriptive statistics were generated. All cases were collected to evaluate the effect of DVT to survival. Survival was calculated using the method of Kaplan and Meier and comparisons were made by log-rank test. Cox regression model was used to assess the effect of multiple variables on survival.

**Results:** 60 cases of cervical cancer with DVT and 160 cases of cervical cancer patients without DVT were identified. The median survival times with and without were 1.43 and 2.80 years respectively. The survival of patients from the time of cancer diagnosed with venous thrombosis was significantly poorer than the group without DVT.

On multivariate analysis, the factors identified as decreasing survival were DVT hazard ratio = ( $p < 0.00005$ ) advance stage ( $p = 0.0005$ ) and palliative treatment ( $p = 0.00140$ ).

**Conclusion:** Venous thrombosis is highly significant poor prognostic factor that reducing survival of cervical cancer patients. Gravidity = 0 or 1 is significant risk factor of DVT in these patients.

**Keywords:** Cervical cancer, Survival, Deep vein thrombosis (DVT)

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# **A Comparison of Vaginal Misoprostol 800 µg versus 400 µg for Anembryonic Pregnancy: A Randomized Comparative Trial**

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**Objective:** To compare the efficacy, side effects and patient satisfaction between 800 µg versus 400 µg intravaginal misoprostol for anembryonic pregnancy.

**Material and Method:** Women who had diagnosed as anembryonic pregnancy were treated as IPD case and randomly assigned to receive either 800 µg or 400 µg intravaginal misoprostol. The second dose was administered in the equal dose if there was no evidence of abortion in 24 hr. The treatment failure was determined by no complete abortion within 48 hr. If spontaneous abortion had not occurred, or had heavy vaginal bleeding or evidence of incomplete abortion either by clinical manifestation or sonographic finding then dilatation and curettage was performed.

**Results:** Fifty patients were enrolled into the study, 25 patients were randomized to receive 800 µg and 25 patients were received 400 µg intravaginal misoprostol. Complete abortion within 48 hr was not different between the 2 groups (72%). However complete abortion within 12 hr was significantly higher in the 800 µg group than in the 400 µg group (64% versus 20 %, respectively,  $p = 0.016$ ). The median time to abortion in the 800 µg group was significantly shorter than in the 400 µg group (9.0 hr versus 16.0 hr, respectively,  $p = 0.01$ ). There was no significant difference in the side effects and patients' satisfaction between both groups.

**Conclusion:** Vaginal misoprostol can be used for termination of pregnancy in case of anembryonic pregnancy with high successful rate of complete abortion and no serious adverse effects. We recommend the 800 µg vaginal misoprostol regimen because within 12 hr the complete abortion rate was higher and the median time to abortion was shorter than the 400 µg regimen with no difference in side effects. This may decrease the suffering time of both physical and psychological trauma to the patient before complete abortion has occurred.

**Keywords:** Anembryonic pregnancy, Misoprostol, Pregnancy termination

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## **A Study Pelvic Nodes Metastasis of Cervical Carcinoma Stage IB1 in Rajavithi Hospital**

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*Three hundred and twenty three patients stage IB1 .All patients under went radical hysterectomy between 1993-2004 at Rajavithi Hospital were reviewed. There were treated with radical hysterectomy with pelvic lymphadenectomy. Pelvic lymph node metastasis was 53 patients (16.5%). In the case with lymph node metastasis, Adjuvant radiation therapy was also given. The patients ranged in age from 22to 67 years (mean 43.6). Tumor size from 0 to 4 (mean 2.18). Lymphatic invasion was observed in 10 cases (3.1%). Parametrium involvement was observed in 6 cases (1.9%). Pregnancy was seen in three cases. Two of them had pelvic lymph node metastasis. The follow-up duration ranged from 3 to 148 mouths (mean 41.4). Four patients had death 10 to 24 months after surgery. Three of them had pelvic lymph node metastasis. The lymphatic vascular invasion and tumor size appeared to be the risk factors for lymph node metastasis.*

**Keywords:** *Cervical Cancer, Lymph Node Metastasis*

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## **Prevalence and Associated Factors of Discordant Twins in Siriraj Hospital**

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**Objectives:** *To determine the prevalence of discordant twins in Siriraj Hospital and to evaluate associated factors.*

**Study design:** *Cross-sectional study.*

**Setting:** *Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University.*

**Subject:** *A total of 150 women with twin pregnancy, <sup>3</sup> 28 weeks of gestation, who had their deliveries of both live twins at Siriraj Hospital from 2003 to 2004.*

**Material and Method:** *A review of medical records was conducted. Discordance was defined as  $\geq 20\%$  difference in birth weight. Prevalence of discordance were calculated and associated risk factors were evaluated.*

**Results:** *Discordance was found in 35 cases; therefore the prevalence was 23.3%. No significant association was found between discordance and various factors, including maternal age, maternal complications, parity, pregnant by assisted reproduction, gestational age at first diagnosis, chorionicity. However, discordant twins delivered at earlier gestational age compared to concordant twins (34.9 + 3.2 and 36.2 + 2.4 weeks,  $p=0.037$ ). Infants of discordant pairs were significant more likely to be admitted to NICU than those of concordant pairs (17.1% and 3.9%,  $p<0.001$ ), both larger and smaller infants. Other neonatal morbidities were not significant different.*

**Conclusion:** *Discordance twin was found in 23.3% in our institute. No significant associated risk factor was established. Infants of discordant pairs were more likely to be admitted to NICU than those of concordant pairs.*

**Keywords:** *Twins, Birth weight discordance, Outcome*

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## **Comparison of the Effectiveness of Treatment of Functional Ovarian Cyst between Low-dose Monophasic Oral Contraceptive Pills and Expectant Management**

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**Introduction:** In current practice, gynecologists suppress the functional ovarian cyst with either oral contraceptive pills or expectant management. Several randomized controlled trials have shown no significant improvement in the resolution of functional ovarian cyst treated with oral contraceptive pills over expectant management alone.

**Objective:** To compare the effectiveness between low-dose monophasic oral contraceptive pills (Microgest® ED) and expectant management in the treatment of spontaneously occurring functional ovarian cyst detected by ultrasonography.

**Study design:** Randomized control trial.

**Material and Method:** Reproductive aged women (N= 70) with ultrasonographically detected functional ovarian cysts were randomized to low-dose monophasic oral contraceptive pills (OC) or expectant management and followed up for 1 month with ultrasonography. If the ovarian cyst did not have remission, the women were followed for another month while on the same treatment.

**Results:** Three of the seventy patients were lost to follow up during the study. Sixty-seven subjects were included in the analysis, 33 in the OC group and 34 in the expectant group. In the OC group, 21 of the 33 (63.6%) had remission of their cysts after the first month of treatment whereas in the expectant group, 18 of the 34 (52.9%) women showed remission. At the second month, the cumulative remission rate was 72.7 and 67.6 percent, respectively.

**Conclusion:** Low-dose monophasic OC was as effective as expectant management in the treatment of spontaneously occurring functional ovarian cyst.

**Keywords:** Functional ovarian cyst, Low-dose monophasic oral contraceptive pills

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## **Effect of Prohibition of Bottle – Feeding Supplement on Breastfeeding**

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**Objective:** *To compare quantity of breast milk between mothers who practised exclusive breastfeeding and combined breast – bottle feeding.*

**Study design:** *Experimental study.*

**Setting:** *Department of Obstetrics and Gynecology, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand.*

**Subjects:** *70 mothers who delivered normal singleton term infant in Ramathibodi Hospital from April 2005 to June 2005.*

**Intervention:** *The subjects were voluntarily recruited and allocated into two groups. Study group were 35 mothers who practised exclusive breastfeeding and 35 mothers who practised combined breast – bottle feeding were control group. Time of expression of breastmilk and quantity of breast milk at 48 h after delivery were evaluated and compared between two groups.*

**Main outcome:** *Time of expression of breastmilk during postpartum period and quantity of breast milk at 48 h postpartally.*

**Results:** *Expression of breastmilk at 12 h after delivery were significantly different between two groups (63.9% in study group compared to 36.1% in control) but no difference at 24,48 h. Mean quantity of breast milk at 48 h were significantly different (8.49 ml in study group compared to 6.09 ml in control) ( $p < 0.05$ ).*

**Conclusion:** *Mothers who practiced exclusive breastfeeding had significantly earlier expression of breastmilk and higher quantity of breast milk compared to mothers who practised combined breast – bottle feeding.*

**Keywords:** *Breastfeeding, Bottle – feeding, Lactation*

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## **Prevalence of Bacterial Vaginosis in Pregnant Women with Preterm Labor in Siriraj Hospital**

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**Objective:** *To study the prevalence of bacterial vaginosis (BV) in pregnant women with preterm labor.*

**Study design:** *Cross-sectional study*

**Setting:** *Labor room of Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital.*

**Subjects:** *A total 138 pregnant women diagnosed with preterm labor who were admitted at Siriraj hospital during January to July 2005.*

**Material and Method:** *During pelvic examination, vaginal fluid was collected from posterior vaginal fornix with one cotton swab and tested for BV using the "BV blue test". Data regarding obstetric characteristics, labor and delivery, and maternal and neonatal complications were recorded.*

**Results:** *The BV Blue test was positive in 23 women that the overall prevalence of BV was 16.7%. The prevalence in women with preterm labor was 12.5% while in premature uterine contraction group was 19.5% ( $p > 0.05$ ). The prevalence of BV in women of 28-33 and 34-36 weeks of gestation was 14.3% and 19.1% respectively ( $p > 0.05$ ).*

**Conclusion:** *The prevalence of bacterial vaginosis was 16.7% among women with preterm labor and premature uterine contraction.*

**Keywords:** *Preterm labor, Uterine contraction, BV blue test, Bacterial vaginosis, Prevalence*

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**Progression-Free Interval in Patients with Advanced Ovarian Cancer after Suboptimal Surgical Staging Followed by Chemotherapy at Phramongkutklao Hospital**

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**Introduction:** Ovarian cancer is the second most common gynecologic malignancy found in Thai women. Treatment is by radical surgical excision of tumor followed by systematic chemotherapy. Prognosis of patients after treatment depends on stage of disease, cell type, amount of residual tumor left after surgery and type of chemotherapy available for treatment. Patients with suboptimal surgical excision do not respond favorably to chemotherapy and disease usually progress within months after surgery. In recent years new chemotherapeutic agents such as paclitaxel have been used in patients with suboptimal surgery with favorable results. However the result of treatment in term of progression-free-interval for such patients at Phramongkutklao hospital has not been reported.

**Objective:** To evaluate response in terms of progression-free-interval in patients with advanced ovarian cancer (stage II-IV) after suboptimal surgical staging followed by chemotherapy at Phramongkutklao hospital.

**Material and Method:** This is a retrospective descriptive study of patients with stage II-IV epithelial ovarian cancer treated by suboptimal surgical excision followed by chemotherapy between May 1997 to April 2004. Data was extracted from patient's medical records from hospital Medical Record Department and tumor charts from the Oncology Unit, Department of Obstetrics and Gynecology.

**Results:** Forty-one patients with stage II-IV epithelial ovarian cancer who met the study criteria were treated during the period. Mean age was 50 years with range between 23 to 75 years. Most of the patients were in stage III and II, 81% and 11.90% respectively. Cell types commonly found were serous adenocarcinoma (34%) and endometrioid (34%). The mean progression-free-interval (PFI) was 21.6 months.

**Conclusion:** Prognosis of patients with advanced ovarian cancer after suboptimal surgery followed by chemotherapy is poor and the reason for this should be determined.

**Keywords:** Progression-free-interval, Suboptimal, Epithelial ovarian cancer

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## **Comparative Study on the Efficacy and Safety of Sertaconazole Vaginal Tablet, Fluconazole and Clotrimazole Vaginal Tablet in the Treatment of Vulvo Vaginal Candidosis**

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**Objective:** To compare the efficacy between sertaconazole, fluconazole, and clotrimazole in the treatment of vulvovaginal candidosis.

**Study design:** Randomized clinical trial

**Setting:** STD clinic, Department of Obstetrics and Gynaecology, faculty of Medicine Siriraj Hospital.

**Material and Method:** A total of 93 patients diagnosed with vulvovaginal candidosis were enrolled and randomized into 3 groups. Sertaconazole, fluconazole and clotrimazole were given to the patients in each group. Each patient was scheduled for follow up at day 7 and day 28 after treatment to determine cure rate and recurrent rate.

**Results:** A total of 76 cases were available for analysis (25 in clotrimazole group, 25 in fluconazole group, and 26 in sertaconazole group), 10 cases were misdiagnosed with vulvovaginal candidosis, and 6 cases were loss to follow up. Cure rate at day 7 was 80% in clotrimazole group while it was 60% in fluconazole group ( $p=0.123$ ) and 56% in sertaconazole group ( $p=0.048$ ). The recurrent rate was 50% in clotrimazole group, 42.8% in the fluconazole group (0.696), and 9.1 % in the sertaconazole group ( $p=0.042$ ).

**Conclusion:** Clotrimazole demonstrated highest cure rate at 7 days but recurrent rate was also highest as well. Although sertaconazole showed lowest cure rate at 7 days, it had the lowest recurrent rate.

**Keywords:** Vulvovaginal candidosis, Clotrimazole, Fluconazole, Sertaconazole, Efficacy

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# **The Effect of Abnormal Values in Oral Glucose Tolerance Test on Insulin Requirement and Pregnancy Outcomes**

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**Objective:** To evaluate insulin requirement and pregnancy outcomes in the group of two and three abnormal values of 100 gm glucose tolerance test.

**Study design:** Retrospective cohort study.

**Setting:** Department of Obstetrics and Gynaecology, Faculty of Medicine, Ramathibodi Hospital, Bangkok, Thailand.

**Subjects:** Three hundred and sixty three pregnant women who were diagnosed of gestational diabetes and admitted antenatal ward between 1 January 2001 – 31 December 2004.

**Material and Method:** Data were divided into two groups. Insulin treatment was instituted in both groups of women whose blood glucose level couldn't be controlled by 3-7 days diabetic diet prescribed as in-patients.

**Main outcome measures:** Amount of insulin requirement, route of delivery, indications of cesarean section and prevalence on pre-eclampsia.

**Results:** The data of 180 pregnant women with two abnormal values and 183 pregnant women with three abnormal values were analysed. The amount of total insulin requirement were not significantly different but amount of short acting insulin used in the three abnormal values group was higher ( $P$  - value < 0.049). The incidence of pre-eclampsia and route of delivery were not significantly different in both groups.

**Conclusion:** Pregnancies with three abnormal glucose values required more insulin than those with two abnormal values. The maternal outcomes were not significantly different.

**Keywords:** Insulin requirement, Pregnancy outcomes

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## **Treatment of Idiopathic Menorrhagia with Tranexamic Acid**

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**Objectives:** *To determine the efficacy of tranexamic acid in the treatment of idiopathic menorrhagia and to investigate the effect of medical treatment with tranexamic acid on the quality of life of the women with idiopathic menorrhagia.*

**Study design:** *Open, non-comparative study.*

**Setting:** *Department of Obstetrics and Gynecology King Chulalongkorn Memorial Hospital.*

**Subjects:** *40 women with idiopathic menorrhagia was confirmed by menstrual blood loss greater than 80 ml/cycle (PBAC score > 100) and mid-luteal serum progesterone concentration greater than 5 pg/ml.*

**Intervention:** *Treatment with tranexamic acid 1 g orally, three times daily, for five days from day 1 of the menstruation for two consecutive menstrual periods.*

**Main outcome measures:** *Menstrual blood loss was measured using the pictorial blood loss assessment chart (PBAC). Hematological assessments were made at the beginning, after the first treatment cycle and at the end of the study. Questionnaires were given to assess subjective endpoint, quality of life. Patients were asked to report any adverse event during the study period.*

**Results:** *Tranexamic acid reduces the mean PBAC score by 49%, from 350.5 to 178.6. Regarding the change in the quality of life measures, the proportion of women who felt a considerable degree of impairment during the menstruation was reduced from nearly 60% to less than 5% during their third menstruation. No serious adverse events were reported.*

**Conclusion:** *Tranexamic acid is a safe and effective form of medical therapy in women with menorrhagia; also increases quality of life in these women.*

**Keywords:** *Menorrhagia, Idiopathic, Tranexamic acid, Quality of life*

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## **Appropriateness of Antibiotic Prophylaxis in Gynecologic Surgery at Srinagarind Hospital**

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**Objective:** *To evaluate the rate of appropriate prophylactic antibiotic use in gynecologic surgery at Srinagarind Hospital.*

**Study design:** *Prospective descriptive study.*

**Setting:** *Srinagarind Hospital, Khon Kaen University.*

**Material and Method:** *Medical records of 250 gynecologic women who had undergone gynecologic surgery at Srinagarind Hospital during August 2004 – February 2005 were evaluated. The criteria of appropriate prophylactic antibiotics were based on ACOG recommendation 2001. Data on demographic information, procedure of surgery and antibiotic use during surgery were extracted from these medical records and analysed.*

**Main outcomes:** *Rate of appropriate prophylactic antibiotic use and type of inappropriate use.*

**Results:** *There were 250 women who had undergone gynecologic surgery during the study period, 168 total abdominal hysterectomy (TAH), 12 vaginal hysterectomy (VH), 30 salpingo-oophorectomy (SO), 3 myomectomy and 37 diagnostic laparoscopy and laparoscopic ovarian cystectomy (LOC). Twenty faculty members and twenty residents conducted these operations. The overall rate of appropriate prophylactic antibiotic use was 75.2% (95% CI 0.69-0.80). Main type of inappropriate used was multiple doses, lack of indication. The overall rate of appropriate antibiotic prophylaxis among surgeries conducted by faculty members was 53.19% (95%CI 43.00-64.00) and the overall rate of appropriate antibiotic prophylaxis among surgeries conducted by residents was 88.46% (95%CI 82.00-93.00). The rate of immediate postoperative infection among both groups were no different ( $p = 0.529$ ). There were no drugs complication in all subjects.*

**Conclusion:** *The overall rate of appropriate antibiotic prophylaxis in gynecologic surgery at Srinagarind Hospital was 75.2% (95% CI 0.69-0.80). Residents use prophylactic antibiotics more appropriate than faculty members.*

**Keywords:** *Appropriate, Prophylactic antibiotics, Gynecologic surgery, Total abdominal hysterectomy, Vaginal hysterectomy, Salpingo-oophorectomy, Diagnostic laparoscopy, Laparoscopic ovarian cystectomy*

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## **Incidence of Gestational Diabetes Mellitus among Pregnant Women with One Abnormal Value of Oral Glucose Tolerance Test**

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**Objective:** To compare incidence of gestational diabetes mellitus (GDM) between pregnant women with one abnormal value of oral glucose tolerance test (Study group) and those with normal screening test (Control group) and compare their pregnancy outcomes.

**Study design:** Retrospective cohort study

**Setting:** Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital.

**Subjects:** A total of 228 at-risk pregnant women, 114 each in study and control group were enrolled during January 2003 to November 2004. All received GDM screening before 24 weeks of gestation following guideline used at Siriraj Hospital.

**Material and Method:** Data collection included baseline characteristics, data on clinical risks and screening results, final diagnosis, maternal and neonatal complications. Incidence of GDM was compared between the two groups as well as their pregnancy outcomes.

**Results:** Both groups were comparable with regard to baseline characteristics and clinical risks, except that mean age of women in study group were significantly greater than in control group (32.8 + 4.9 and 29.7 + 5.5,  $p < 0001$ ). The incidence of GDM was significant higher among study group compared with control group (21.9% and 1.8% respectively, RR 12.5, 95% CI 3.0-51.5). However, all GDM were class A1. Rate of primary cesarean section, asphyxia, macrosomia, low birth weight, and other neonatal complications were comparable between the 2 groups.

**Conclusion:** Pregnant women with one abnormal value of oral glucose tolerance test had a significantly greater risk for developing gestational diabetes mellitus compared to women with normal screening test. Pregnancy outcomes between the 2 groups were not significantly different.

**Keywords:** Gestational diabetes mellitus, Incidence, One abnormal value, Oral glucose Tolerance test

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## **Cervical Length Measurement by Transvaginal Sonography in Preterm Pregnant Women for Prediction of Preterm Birth**

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**Objective:** To determine the optimal value of cervical length and the presence of funneling in women with preterm labor to predict preterm delivery.

**Study design:** Diagnostic test.

**Setting:** The labor room in the Department of Obstetrics and Gynecology, Bangkok Metropolitan Administration Medical College and Vajira Hospital.

**Subjects:** Pregnant women with gestational age between 24-36 weeks who were admitted to the labor room with the diagnosis preterm labor.

**Intervention:** Transvaginal ultrasonographic measurement of cervical length and presence of funneling were performed.

**Main outcome measures:** Cervical length, presence of funneling, preterm delivery, and interval from admission-to-delivery.

**Results:** The cervical length of women with preterm labor ranged between 10.7–61.2 mm (mean + SD = 30.1 + 9.9 mm). The prevalence of preterm delivery was 43.4 %. The cervical length of 30 mm had the highest diagnostic performances in predicting preterm delivery, with the sensitivity of 93.3 %, specificity of 82.0 %, positive predictive value of 80.0% and negative predictive value of 94.1%. About 90% (9/10) of women with funneling presence had preterm delivery.

**Conclusions:** The cervical length and presence of funneling in preterm labor women are significantly associated with preterm delivery.

**Keywords:** Preterm labor, Preterm delivery, Cervical length, Funneling, transvaginal sonography

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## Resident Presentation

# A Study of Treatment Failures Following Large Loop Excision of the Transformation Zone for the Treatment of Cervical Intraepithelial Neoplasia at Rajavithi Hospital

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**Objective:** To examine the efficacy of large loop excision of the transformation zone (LLETZ) in the treatment of cervical intraepithelial neoplasia (CIN) and the risk of recurrence of CIN depending on the excision margins.

**Study design:** A descriptive retrospective study.

**Material and Method:** A total of 238 women who underwent LLETZ for CIN between 1999 and 2003 at our hospitals were eligible for inclusion in the study and their data were retrospectively studied.

**Results:** Of 238 women recruited to the study. Our study confirmed the previous reports, a success rate of 91.2% was obtained. The incidence of treatment failure, being defined as the presence of any grade of dysplasia confirmed by histology within first 12 months of treatment, was 8.8%. Of 64 cases with positive margin, after follow up for 1 year, recurrent disease developed in 23.4%, compared to 3.3% in patients with negative margins ( $p < 0.001$ ).

**Conclusion:** LLETZ is an effective modality of treatment for CIN. Women with incomplete excision of CIN at initial LLETZ have a higher treatment failure rate.

**Keywords:** LLETZ, Recurrence, LEEP, Success rate

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## **Impact of Labor Induction on the Risk of Cesarean Delivery in Nulliparous Women with Gestational Age Equal or More than 37 Weeks**

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**Objective:** *To compare cesarean delivery rates in nulliparous women at term with induced and non induced labor.*

**Study design:** *Retrospective cohort study.*

**Setting:** *Ramathibodi Hospital.*

**Subject:** *Two hundred and seventy-six pregnant women who delivered in Ramathibodi Hospital from September 2001 to March 2005.*

**Material and Method:** *The data of pregnant women with indications for induced labor were reviewed. The data of other nulliparous women who were delivered on the same day of each induced pregnant woman were gathered and these were picked up at random and the medical records then were reviewed.*

**Main outcome measure:** *The cesarean section rates in induced and non induced labor groups.*

**Results:** *There were one hundred and thirty eight women in each group. Maternal age was no difference but the gestational age was significantly different. The birth weight in both groups were not statistically significant. We found that cesarean delivery were significantly more common (43% VS 29%; P-value < 0.05) when the labor was induced.*

**Conclusion:** *When spontaneous labor was compared with indicated labor induction in nulliparous women at term, the cesarean deliveries was significantly higher.*

**Keywords:** *Labor induction, Cesarean delivery, Spontaneous labor*

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# Pregnancy Outcomes in Placental Abruption

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**Objective:** To assess pregnancy outcomes in women with a history of placental abruption and to investigate a relationship between clinical characteristics associated with placental abruption and poor pregnancy outcomes.

**Material and Method:** A retrospective descriptive study was conducted to evaluate 103 cases of placental abruption delivered at King Chulalongkorn Memorial Hospital during 1995-2004. Medical records were reviewed and pregnancy outcomes were assessed. The association of maternal characteristics, clinical presentation, treatment and poor pregnancy outcomes (low birth weight, severe birth asphyxia and perinatal death) were also investigated.

**Results:** Placental abruption attributed to maternal complications including hypovolemic shock (19.4%), Couvelaire uterus (16.5%) and DIC (5.8%). The perinatal outcomes included low birth weight (65.0%), preterm (56.3%), severe birth asphyxia (16.5%) and perinatal death (16.5%). Pregnancy induced hypertension related significantly to perinatal death (OR 4.2, 95%CI 1.4-12.2) and low birth weight infants (OR 4.2, 95%CI 1.4-12.1). DIC and maternal blood transfusion had significant association with perinatal death (OR 12.9, 95%CI 2.1-77.8) and Couvelaire uterus showed significant relationship with severe birth asphyxia (OR 3.7, 95%CI 1.1-2.1).

**Conclusion:** Placental abruption had a profound impact on both maternal and perinatal complications including DIC, Couvelaire uterus, severe birth asphyxia and perinatal death. Therefore, these pregnancies should be closely monitored and the deliveries should be carried out at tertiary care centers with adequate maternal-neonatal intensive care facilities whenever possible.

**Keywords:** Placental abruption, Pregnancy outcomes, Birth asphyxia, Perinatal death, Low birth weight

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## **Cohort Study of Depressive Moods in Late Pregnancy and 6-8 Weeks Postpartum Measured by the Edinburgh Postnatal Depression Scale (EPDS)**

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**Introduction:** Depression is one of the most common psychiatric illnesses and pregnancy has been found to be a significant factor. Postpartum depression (PPD) is a depressive disorder with postpartum onset usually beginning within the first 4 weeks after delivery. The Edinburgh Postnatal Depression Scale (EPDS), developed in 1987 (Cox et al., 1987), is an instrument that contains a 10-item self-reported statement of common depressive symptoms noted by a woman in the previous week. The statements in this instrument are simple, easily understood, and normally it takes less than 5 minutes to complete.

Depressive moods or disorders in women during pregnancy and postpartum are usually neglected by health providers although this psychological problem is of significant importance to women's health. As a result of these concerns, this study aimed to identify the prevalence of depressive moods in late pregnancy and postpartum in Thai women using the Edinburgh Postnatal Depression Scale (EPDS), explore factors associated with these depressive moods and assess changes in EPDS scores between late pregnancy and postpartum.

**Objective:** To identify depressive moods as measured by the Edinburgh Postnatal Depression Scale in late pregnancy and postpartum, explore associated factors and assess changes in depressive moods.

**Material and Method:** A cohort study of 610 pregnant women was conducted. The self-reporting EPDS was completed at 36-40 weeks and at 6-8 weeks postpartum.

**Results:** The prevalence of depressive moods (scores of 10 or more on the EPDS) was 20.5% during pregnancy and 16.8% at postpartum. Factors related to depressive moods in late pregnancy included marital status, evidence of irritable moods before menstruation, and feelings of unhappiness as a result of the pregnancy. Related factors during the postpartum period included a previous history of psychological disorders, evidence of irritable moods before menstruation, complications during pregnancy, and feelings of unhappiness ( $p < 0.01$ ). The depressive moods were significantly reduced postnatally.

**Conclusion:** One-fifth of pregnant and postpartum women experienced depressive moods but the severity declined at postpartum.

**Keywords:** Depressive moods, Late pregnancy, Postpartum, Edinburgh postnatal depression scale (EPDS)

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## **Incidence of Abnormal Pap Smear Results between HIV-infected and Non-infected Women**

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**Objective:** *To compare the prevalence of abnormal cytological screening results between HIV-infected and non-infected postpartum women.*

**Study designs:** *Cross-sectional study.*

**Setting:** *Department of obstetrics and gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University.*

**Subjects:** *A total of 70 HIV-infected and 280 non-infected women who received cytological screening by Pap smear during postpartum check up were enrolled.*

**Material and Method:** *Data were abstracted from medical record, including demographic characteristics, cervical cytological results, and other related factors. Prevalence of abnormal cytological results were compared between the 2 groups.*

**Results:** *All cytological smears were satisfactory for evaluation. HIV-infected women showed significant higher prevalence of overall abnormal cytological results than non-infected women (31.4% and 13.9% respectively,  $p < 0.001$ ). Infection and inflammation were significantly higher in HIV-infected than non-infected women (48.6% and 13.2% respectively,  $p < 0.001$ ). In addition, squamous intraepithelial lesion was also significantly higher in HIV-infected than non-infected women (11.4% and 0.7% respectively,  $p < 0.001$ ).*

**Conclusion:** *HIV-infected women demonstrated higher prevalence of abnormal cytological smear including SIL than non-infected women. Effective cervical cytological screening and treatment program should be established to early detect abnormalities among HIV-infected women.*

**Keywords:** *Human immunodeficiency virus, Abnormal Pap smear*

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**Intrapartum Fetal Abdominal Circumference  
Measurement by Ultrasonography for  
Predicting Fetal Macrosomia**

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**Objective:** To determine the ultrasonographic fetal abdominal circumference measurement for predicting the fetal macrosomia.

**Material and Method:** The prospective study consisted of 361 singleton pregnant women who admitted at labor room between August 2004 and January 2005. All subjects underwent sonographic measurements of fetal abdominal circumference before delivery. The maternal demographic data and actual fetal birth weight were recorded. The accuracy of abdominal circumference in prediction of macrosomia was evaluated using the receive operating characteristic (ROC) curve.

**Results:** The mean maternal age was  $29.0 \pm 5.5$  years (range, 15-46). The median gestational age was 39 weeks (range, 31-42). The mean fetal birth weight was  $3,179.83 \pm 450.91$  gm (range, 1,180-4,560). The prevalence of macrosomia was 11.08% (40/361). A cut-off value of abdominal circumference  $\geq 35$  cm was the best predicting value for fetal macrosomia with sensitivity of 87.50%, specificity of 84.74%, and accuracy of 85.04 %.

**Conclusions:** The intrapartum fetal abdominal circumference  $\geq 35$  cm was the best cut-off point for predicting fetal macrosomia.

**Keywords:** Fetal abdominal circumference, Intrapartum, Macrosomia, Ultrasound

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# Selective Screening for Gestational Diabetes Mellitus in Bhumibol Adulyadej Hospital

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**Objectives:** To evaluate the applicability of the 50 gm, 1-hr glucose challenge test (GCT) as a screening test for gestational diabetes mellitus, based on risk indicators, and to identify appropriate risk factors for gestational diabetes mellitus (GDM).

**Study design:** Diagnostic, descriptive study.

**Setting:** Department of Obstetrics and Gynecology, Bhumibol Adulyadej Hospital.

**Population:** 838 pregnant women, 24-28 weeks, who were identified and recruited based on risk indicators, between January and December 2004.

**Material and Method:** A 50 gm, 1-hr glucose challenge test was given to this group. All women with plasma glucose value  $\leq$  130 mg/dl were given a 100 gm, 3-hr glucose tolerance test to diagnose gestational diabetes mellitus according to Carpenter and Coustan diagnostic criteria. The Receiver-Operating Characteristic (ROC) Curve was used to identify the cut-off value of 50 gm, 1-hr glucose challenge test for detecting GDM.

**Main outcome measure:** The cut-off value of 50 gm, 1-hr GCT for detecting GDM by using ROC curve and the sensitivity and specificity of various cut-off value.

**Results:** The ROC curve identified a 50gm, 1-hr plasma glucose level  $\leq$  150 mg/dl as the cut-off value for detecting GDM, which showed the sensitivity and specificity of 80.1% and 62.7% respectively. But in high risk group, the screening must have the high sensitivity that more efficient in identifying almost all case of GDM. If 50gm, 1-hr plasma glucose level  $\leq$  140 mg/dl was used as the cut-off value, the sensitivity was increased to 95.3% with the specificity of 48.6%. This cut-off value the diagnosis of GDM was missing only 2 cases. This study showed the prevalence of GDM in high risk pregnant women of 20.41%. The prevalence of the GDM was significantly increased when screening base on risk indicator, compared with the other study that used universal screening. The rate of GDM was significantly higher in women with a positive family history (15.28%), age  $\leq$  30 years (22.89%), BMI > 27 (14.06%), urine sugar  $\leq$  trace (26.32%), previous macrosomic infant (50%), history of unexplained fetal death (37.5%), history of chronic hypertension (100%) and history of pregnancy induced hypertension (100%).

**Conclusion:** The selective GCT screening strategy was highly effective and revealed 20.41% of GDM prevalence. Recommended threshold of 140 mg/dl used as the cut-off value of 50 gm, 1-hr GCT for screening GDM base on risk indicators. The appropriate risk factors for GDM were a positive family history of DM, age  $\leq$  30 years, BMI > 27, urine sugar  $\leq$  trace, previous macrosomic infant, history of unexplained fetal death, history of chronic hypertension and pregnancy induced hypertension.

**Keywords:** 50gm, 1-hr glucose challenge, Screening of gestational diabetes mellitus, High risk pregnancy

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## **Prenatal Prevention of Severe Thalassemia Disease at Srinagarind Hospital**

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**Objective:** To evaluate the results of prenatal prevention measures against severe thalassemia disease at Srinagarind Hospital.

**Study design:** Descriptive study.

**Setting:** Antenatal care (ANC) clinic, Department of Obstetrics and Gynecology, Srinagarind Hospital, Khon Kaen University.

**Subject:** 1,498 pregnant women first presenting at ANC clinic at gestational age less than 16 weeks.

**Material and Method:** Medical records of the pregnant women were screened for thalassemia between February 2002 and February 2005 using mean corpuscular volume (MCV), those with a value less than 80 fl, or positive dichlorophenol indophenol precipitation test (DCIP) underwent hemoglobin typing by high performance liquid chromatography (HPLC) together with thalassemia investigation of their husbands and to identify couples at high risk of 3 severe thalassemia diseases; Hb Bart's hydrops fetalis, homozygous  $\alpha$  thalassemia and  $\alpha$  thalassemia/ Hb E diseases. These were then advised to undergo DNA analysis and if confirmed to have fetal risk, appropriated prenatal diagnosis was offered.

**Main outcome measures:** Number of affected fetuses detected by prenatal diagnosis.

**Results:** A total of 996 pregnant women (66.49%) were positive on screening. Of these 642 (64.46%) had a CBC, MCV and Hb typing done with their spouses. There were 19 couples at risk (1.91%) for having fetal severe thalassemia disease from initial laboratory results, most of them were , thalassemia/ Hb E diseases we found only 10 pregnant women (55.56%) accepted prenatal diagnosis. The consequent results were 2 affected fetuses (20%), one was Hb Bart's hydrops fetalis and the other with , thalassemia/ Hb E disease. In cases, their parents decided to discontinue the pregnancy.

**Conclusion:** The prenatal prevention program of severe thalassemia disease at Srinagarind Hospital could effectively detect affected fetuses and these reduce severe thalassemia diseases that are major health problem in Thailand.

**Keywords:** Prenatal screening, Prenatal diagnosis, Thalassemia

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## **Ultrasonographic Characteristics in Patients Clinically with Diagnosed Threatened Abortion**

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**Objective:** *To determine ultrasonographic appearances in pregnant women clinically diagnosed with threatened abortion.*

**Study design:** *Cross-sectional study*

**Subjects:** *A total of 776 pregnant women clinically diagnosed with threatened abortion and received ultrasonographic examination were enrolled.*

**Material and Method:** *Data on ultrasonographic characteristics were obtained from records at the Maternal-fetal Medicine unit. Baseline characteristics, clinical presentation, and pregnancy outcomes were reviewed from medical records. The ultrasonographic findings were reported as viable pregnancy, anembryonic pregnancy, embryonic death, incomplete abortion, complete abortion, ectopic pregnancy, molar pregnancy, and inconclusive finding.*

**Results:** *The ultrasonographic findings demonstrated 328 (42.3%) viable pregnancy, 178 (22.9%) embryonic death, 176 (22.7%) anembryonic pregnancy, 25 (3.2%) incomplete abortion, 24 (3.1%) complete abortion, 7 (0.9%) molar pregnancy, 4 (0.5%) ectopic pregnancy, and 34 (4.4%) inconclusive finding. The 260 viable pregnancies were available for follow up and revealed 217 (83.5%) term delivery, 12 (4.6%) preterm delivery, and 31 (11.9%) abortion. Of patients with inconclusive finding, 29 were available for follow up and revealed 24 (82.8%) abortion, and 5 (17.2%) term delivery.*

**Conclusion:** *Ultrasonographic findings in patients clinically diagnosed with threatened abortion demonstrated viable pregnancy in nearly half of cases. Transvaginal ultrasonography is useful in establishing definite diagnosis and appropriate treatment among these patients.*

**Keywords:** *Threatened abortion, Transvaginal ultrasonography*

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# **Tumor Persistence in High Grade Squamous Intraepithelial Lesion (HSIL) Patients with Unfree Surgical Margin Post Loop Electrosurgical Excision Procedure**

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**Objective:** To determine the rates of persistent or recurrent tumors in patients with High Grade Squamous Intraepithelial Lesion (HSIL) who had unfree surgical margin from loop electrosurgical excision procedure (LEEP).

**Study design:** Retrospective descriptive study

**Setting:** Department of Obstetrics and Gynecology, Bangkok Metropolitan Administration Medical College and Vajira Hospital

**Subjects:** All women who underwent LEEP procedures which revealed HSIL lesions with unfree surgical margin between July 1997 and December 2004 were included into the study.

**Interventions:** The subjects were identified from the Gynecologic Oncology Unit tumor registry record. The pathological and clinical data including the follow-up information were recorded.

**Main outcome measures:** Rate of persistent or recurrent tumors.

**Results:** Histologic diagnosis of HSIL with unfree surgical margin were found in 95 women during the study period. Residual diseases were identified at ectocervical margins in 46 cases (48.4%), endocervical margin in 26 cases (27.4%), and both margins in 23 cases (24.2%). Subsequent hysterectomy were performed in 58 patients (61.6%). Persistent diseases were identified in 18/58 patients (31.6%); the most common lesion was carcinoma in situ; 7/18 patients (38.9%). The remaining 37 patients (38.9%) underwent periodic follow-up pelvic examination and Papanicolaou smear with the median time of follow-up period 11 months (range, 1 month-74 months). Recurrent disease was identified in only 1 patients (2.7 %). The recurrence occurred as low grade squamous intraepithelial lesion at 19 months post LEEP.

**Conclusions:** In HSIL patients with unfree surgical margin from LEEP, the rate of persistent disease in hysterectomy specimens was 31.6%, while the rate of recurrence in follow up patients was 2.7%.

**Keywords:** HSIL, LEEP (loop electrosurgical excision procedure), Positive margin, Persistent

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## **WT1 Gene Expression as a New Prognostic Marker in Advanced Serous Epithelial Ovarian Carcinoma**

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**Background:** *WT1 is a tumor suppressor gene responsible for Wilms' tumor. WT1 reactivity is limited to ovarian serous and not found in mucinous carcinomas. Recent studies have shown that WT1 plays an important role in the progression of disease and indicates a poorer prognosis of human malignancies such as acute myeloid leukemia and breast cancer.*

**Objectives:** *The aims of this study were to determine the survival and recurrence-free survival of women with advanced serous epithelial ovarian carcinoma in relation to WT1 gene expression.*

**Material and Method:** *The records of 99 women were reviewed and the paraffin-embedded tissue of these women stained with WT1 immunostaining.*

**Results:** *Fifty patients showed WT1 staining and forty-nine did not. Five-year survival of non-staining and staining groups were 39.4% and 10.7% ( $p < 0.00005$ ); five-year recurrence-free survival of these groups were 29.8% and 0%, respectively. For survival the HR of WT1 staining, adjusted for chemotherapy response was 2.20 (95% CI 1.28-3.79,  $p = 0.0044$ ), and for recurrence-free survival the HR was 3.64 (95% CI 1.93-6.84,  $p = 0.0001$ ). The HR for recurrence-free survival was not confounded by any other variables.*

**Conclusion:** *Overall survival and recurrence-free survival of advanced serous epithelial ovarian carcinoma were significantly poorer in patients with WT1 gene expression.*

**Keywords:** *Serous ovarian carcinoma, Survival, WT1 gene*

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# Effect of Halogen Light to Fetal Well-Being Assessment

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**Objective:** To compare fetal heart rate response between non-stress test (NST) and light stimulation test (LST) using halogen light.

**Study design:** Randomized control trial.

**Material and Method:** A total of 176 pregnant women between 32-42 weeks of gestation who were indicated for fetal well-being evaluation were randomly assigned to receive either NST or LST. In the LST group 1,000,000 candle-light stimulation was performed at the beginning of the test and repeated every 10 minutes up to 3 times or until adequate fetal heart rate acceleration was detected. The results of both tests were interpreted blindly by only one obstetrician. Comparison were made between 2 groups with regard to time to first FHR acceleration, time to reactive NST, and rate of non-reactive test.

**Results:** The mean time to first FHR acceleration in LST was slightly shorter than that of NST group (5.6 + 7.2 and 5.4 + 5.2 minutes respectively,  $p=0.861$ ). The mean time to reach a reactive test was also slightly shorter in LST than that of NST group (10.5 + 8.8 and 9.6 + 6.7 minutes respectively,  $p=0.488$ ). The incidence of non-reactive tests of both groups was not statistically different (11.4% in NST group and 15.9% in LST group,  $p=0.380$ ). Fetal heart rate response time was slightly shorter in LST group among term fetus and in non-obese women.

**Conclusion:** Halogen light stimulation during NST might be an alternative to routine procedure that could reduce time to fetal heart rate response and time to reactive test.

**Keywords:** Light stimulation, Non-stress test

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