

Medical colleges' challenges and coping strategies in implementing accreditation standards in Pakistan

Fouzia Gul¹, Usman Mahboob², Gohar Wajid³, Akhtar Sherin⁴

ABSTRACT

Objectives: To explore the challenges faced by medical colleges and coping strategies used in implementing accreditation standards by Pakistan Medical Commission during accreditation inspection 2019.

Methods: In this qualitative case study, four medical colleges and their affiliated hospitals from three cities in Khyber Pakhtunkhwa province of Pakistan were selected through purposive sampling. Data was collected through focus group discussions (FGD) through Open-ended questions, based on CIPP (context, input, process, and product) model. Each focus group comprised of Dean, the Director Department of Medical Education (DME) and the Medical Director of the hospital. Data were thematically analyzed and results were based on the CIPP model.

Results: Three themes identified were *administrative challenges*, *accreditation challenges* and *resource challenges*. The *administrative challenges* theme was further explained under subthemes of

rules and regulation challenges, documentation and record challenges, and DME-related challenges.

The *accreditation-related challenges* theme was explored in-depth with subthemes of *accreditation*

process-related challenges, *accreditation standards-related challenges* and *curriculum-related challenges*.

The *resource challenges* theme was described under sub-themes of *infrastructure-related challenges*,

human resources and *financial challenges*. The commonest coping strategies adopted by medical colleges

were establishing DME, emergency preparatory meetings of staff, and hiring staff on an emergency basis,

to overcome administrative, accreditation and resource challenges respectively. Future suggestions for

improving the accreditation process in the local context were highlighted.

Conclusion: Main challenges identified were administrative challenges, accreditation challenges and

resource challenges. Coping strategies by the medical colleges for these challenges are highlighted.

The accreditation body should harmonize the process of accreditation with medical colleges and other stakeholders.

KEYWORDS: Accreditation; Standards; Challenges; Schools, Medical; Faculty; Hospitals; Pakistan Medical Commission; Pakistan Medical & Dental Council.

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ABSTRACT

Title:

ASSOCIATION OF HIGH BMI WITH MATERNAL AND PERINATAL OUTCOMES

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Subject category:

Maternal medicine / Obesity

INTRODUCTION

Obesity is an epidemic of the 21st century with its rates doubling in both developed and developing countries. It has multiple major public health issues for both maternal and fetal well-being and needs altered care throughout pregnancy and in postnatal period.

Increased prevalence of obesity is due to factors like social demographics, different health behaviour practices, attitudes about dietary knowledge and physical activity. Steroidal peptide hormones and adipokines produced by adipose tissue (like adiponectin, adipon, cytokines and acylation-stimulating protein) cause dysregulation of certain tissue functions like uterine contractility with increased risk of prolonged pregnancy, dysfunctional labor, operative delivery and postpartum haemorrhages.^{4,5}

A well-accepted fact is that weight before pregnancy is more important than antepartum weight gain regarding risk of adverse feto-maternal outcome. Limited data is available about the association in our set up which led us to search for it (WHO 2003)

Obesity associated adverse events are gestational diabetes and hypertension, thromboembolic disorders, perineal trauma and maternal mortality. Various neonatal risks reported are abortions, congenital defects, fetal macrosomia, shoulder dystocia, decreased Apgar scores, neonatal respiratory distress and high perinatal mortality rate.

Objectives:

To find out association of high pre-pregnancy BMI with adverse maternal and perinatal outcomes.

Method:

Design: cohort study

Study was conducted in gynecology department of Lady Reading Hospital Peshawar over a period of 13 months. Sample size of 390 women calculated. Consecutive sampling done for low risk women with single alive cephalic fetus, at 37 weeks of gestation, with either self-reported pre-pregnancy weight or obtained from first trimester antenatal record (up to 12 weeks of gestation). Two groups categorized based on pre pregnancy BMI with 135 cases of BMI ≥ 25 and 255 of < 25

25. Cases followed up in antenatal clinic until delivery in our department and postpartum outcomes until discharge were studied. Excluded if no available first trimester ultrasound, fetal anomaly, preterm labor, prenatal maternal medical complications e.g. diabetes or chronic hypertension.

Maternal characteristics included age, gravidity, parity, mode of delivery, maternal postpartum complications (Hemorrhage \geq 500 mL, perineal, cervical or vaginal tears), Neonatal outcomes observed were fetal distress (assessed by CTG), Apgar score at minute 1 $<$ 8/10, macrosomia (defined as birth weight \geq 4000 Kg) and necessity for transfer to NICU.

Results:

The mean age was 28.2 ± 4.8 years, with statistically significant difference (P value 0.04) between two groups within age groups of 18-20 years (12.5% in group 1 compared to 5.9% in group 2).

Table-I: Demographic Features of the study participants

AGE	≥ 25 BMI	< 25 BMI	Total	P-Value
18-21 yrs	8(5.9%)	32(12.5%)	40(10.2%)	0.04
22-25 yrs	30(22.2%)	71(27.8%)	101(25.8%)	0.22
26-29 yrs	30(22.2%)	51(20.0%)	81(20.7%)	0.26
30-34 yrs	27(20%)	62(24.3%)	89(22.8%)	0.33
35-38 yrs	28(20.7%)	36(14.1%)	64(16.4%)	0.09
39-42 yrs	12(8.9%)	3(1.2%)	15(3.8%)	0.0001
Total	135(34.6%)	255(65.4%)	390(100%)	

Statistically significant association (P $<$ 0.001) found between pre-pregnancy BMI > 25 and postpartum hemorrhage in 4.9%, genital tract trauma in 2.1%, perineal trauma in 0.8% women while no complications in 26.9% of obese women.

TABLE III: BMI AND MATERNAL OUTCOMES

Maternal Outcomes	< 25 BMI	> 25 BMI	Total	P-Value
No	255 (65.4%)	105 (26.9%)	360 (92.3%)	< 0.001

complication				
Postpartum Hemorrhage	0 (0.0%)	19 (4.9%)	19 (4.9%)	0.0001
Cervical/vaginal tears	0 (0.0%)	8 (2.1%)	8 (2.1%)	0.0002
Perineal Tear	0 (0.0%)	3 (0.8%)	3 (0.8%)	0.04
Total	255 (65.4%)	135 (34.6%)	390 (100%)	

Statistically significant association found between neonatal risks and pre-pregnancy BMI ≥ 25 as macrosomia in 3.6%, fetal distress in 3.1%, 1 minute APGAR score of $< 8/10$ in 20% and NICU admission in 12.59 % of cases with BMI > 25 ($P < 0.01$).

TABLE IV: BMI AND FETAL OUTCOME

Fetal outcome	BMI < 25	BMI ≥ 25	Total	P Value
No complications	247 (63.3%)	109 (27.9%)	356 (91.3%)	< 0.001
Macrosomia	0 (0.0)	14 (3.6%)	14 (3.6%)	0.0001
Fetal Distress	8 (2.1)	12 (3.1%)	20 (5.1%)	0.02
APGAR score				
$> 8 / 10$	8 (2.1%)	4 (1.0%)	12 (3.1%)	< 0.001
$= 8 / 10$	239 (61.3%)	104 (26.7%)	343 (87.9%)	
$< 8 / 10$	8 (3.1%)	27 (20.0%)	35 (9.0%)	
NICU admission	5 (1.96%)	17 (12.59%)	22 (14.55%)	< 0.0001
Total	255 (65.4%)	135 (34.6%)	390 (100%)	

CONCLUSION: High maternal pre pregnancy BMI is significantly associated with adverse maternal and perinatal outcomes.

TITLE OF ABSTRACT:

Efficacy of Doppler Ultrasound in Detection of Ovarian Malignancy

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INTRODUCTION AND OBJECTIVE:

Over decades, the ovarian cancers have emerged as a potential threat to life of women across the globe being the 7th most common cancer and 5th most common cancer related deaths in females. The main objective of our study was to evaluate the accuracy of colour Doppler USG and b-mode USG preoperatively in detection of ovarian malignancy using histopathological diagnosis as gold standard.

METHODOLOGY:

This cross-sectional study was conducted at Fauji Foundation hospital Rawalpindi from June, 2017 to Jan, 2020 after seeking the ethical approval from the hospital ethical committee. A total of 96 female patients having adnexal masses on ultrasound were included in study. Enrollment in the study was subjected to written informed consent. Patients having adnexal mass of non- ovarian origin, patients not fit for surgery and lost to follow up were excluded from study. History taking and examination was followed by ultrasound and color-doppler of each patient. Color Doppler sonography was carried out with real-time ultrasound and Doppler scanner unit. All the included patients were undergone laparotomy after pre op workup. Histopathologies of all patients were traced. To avoid observer error, a designated trained operator performed doppler ultrasound from hospital own resource by using Toshiba Xario colour Doppler. Histopathology was also performed by hospital pathology laboratory by trained histopathologist. All the included patients were undergone laparotomy after pre op workup. Histopathologies of all patients were traced. All the relevant findings were recorded in the pre-designed proforma. Data was entered and analysed in SPSS Version-26.

RESULT:

The sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of Doppler with grayscale USG in detecting ovarian malignancy were calculated. The specificity was found to be 90.3% and sensitivity was 79.2%. Positive and negative predictive values were 92.9% and 73.1% respectively.

CONCLUSION:

Based upon the study findings, the Doppler USG's reliability can be established for detection of ovarian malignancies.

The Effect of Covid-19 Vaccination on the Menstrual Pattern and Mental Health of the Medical Students: A Mixed-Methods Study from Low and Middle-Income Country

ABSTRACT

Objective: To assess the effect of COVID-19 vaccination on menstrual patterns and mental health of medical students and to explore the students' perspective regarding this effect.

Methodology: This mixed-method study was conducted on the medical and dental students of the private and public sector institutions of Peshawar from September 2021 to March 2022. A Menstrual symptom questionnaire (MSQ) and hospital anxiety and depression scale (HADS) were used. This was followed by qualitative interviews with the students who faced problems in their menstruation after the COVID-19 vaccination.

Results: A total of 953 students were included, with a mean age of 20.67 ± 1.56 years. More than half ($n=512$, 53.7%) experienced menstrual cycle abnormalities post-vaccination. The majority having disturbances in their menstrual cycle had significantly higher levels of anxiety ($p=0.000$). Results on the menstrual symptom questionnaire, anxiety, and depression subtype of HADS showed a negative and statistically significant relationship with changes after COVID-19 vaccination ($p<0.05$). In the qualitative interviews, 10 (58.8%) students each had problems with frequency and flow, followed by 7 (41.2%) students, who had dysmenorrhea. Seven (41.2%) consulted a gynecologist for management. The majority ($n=14$, 82.4%) stated that these issues had an adverse impact on their mental health and almost half ($n=8$, 47.1%) suggested consulting a gynecologist while facing such situations.

Conclusion: This study showed the impact of the COVID-19 vaccine on women's menstrual patterns and subsequent mental health status. Although the majority of the students experienced menstrual cycle abnormalities and subsequent mental health adversities post COVID-19 vaccination but these were temporary and self-limiting and were attributed to the psychological impact of the vaccination. Therefore, it is imperative to alert health care professionals about possible side effects and prior counseling is expected to play an important role in this context.

Keywords: COVID-19; Vaccine; Menstrual pattern

Causes and outcome of pregnancy related acute kidney injury

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INTRODUCTION:

Pregnancy related acute renal injury(Pr-AKI) is a potential cause of fetomaternal morbidity and mortality worldwide.Pr-AKI results from conditions specific to pregnancy. In pregnancy, the common causes of acute kidney injury are preeclampsia, hemorrhage and sepsis.

A substantial decline in the incidence of Pr-AKI has occurred, in the developed countries. This is attributed to strong and comprehensive antenatal care programmes. On the contrary situation in the underdeveloped world is devastating, where preeclampsia, hemorrhage and sepsis continue to remain the killer conditions in pregnancy.

Pr-AKI is associated with serious complications for both mother and fetus. Fetomaternal complication mainly result from the underlying cause of acute kidney injury. Preterm delivery, intrauterine fetal death, still births, intensive care admissions of both mother and baby, prolonged hospital stay and maternal mortality are the documented obstetrical complications.Recovery from renal injury is dependent on timely diagnosis and appropriate management of underlying condition as well as of renal injury.

The objective of current study was to determine the frequencies of causes and outcomes of pregnancy related acute kidney injury. There is limited recent research on this topic from our region. This study will provide the latest evidence on this subject and will provide an insight into the burden of this reversible health condition resulting from potentially preventable obstetrical complications. It will also open window for further larger studies in this field.

Methodology:This descriptive case series was conducted in Gynecology unit of a tertiary care hospital of Peshawar, from1st August 2021 to 31st July 2022.A total of 100 obstetric patients with acute kidney injury secondary to obstetric conditions were enrolled via nonprobability consecutive sampling technique.While patients with preexisting renal disease, those with renal stones, or having bilateral small kidneys on ultrasound were excluded from the study.

Patients were followed till 12 weeks postpartum period. Underlying obstetrical causes and outcome at 12 weeks postnatal period were determined.

Results:The mean age of sample of 100 cases was 29.29 ± 6.45 . Mean serum creatinine at presentation was 6.5 ± 3.13 . Majority of patient ,89 % were multigravidas. Seventy eight percent patients required hemodialysis. Primary postpartum hemorrhage remained the commonest underlying cause of pregnancy related acute kidney injury in this study. The frequency of persistent renal failure in Pr-AKI in this study was 14%. In about 66% of cases complete recovery occurred. All the underlying obstetrical causes,when adjusted for age, gravidity, place and mode of delivery, had no association with persistent renal failure.

Conclusion: Primary postpartum hemorrhage is the predominant cause of pregnancy related acute kidney injury. By the end of 12 weeks postpartum,two third patients recover completely from pregnancy related acute renal injury.

ABSTRACT(ORAL PRESENTATION)

Title: AUDIT OF OBSTETRIC REFERRED CASES IN TERTIARY CARE HOSPITAL OF PESHAWAR.

Author: DR.MAIMOONA QADIR;Assistant Professor;Gynae Department;Khyber Teaching Hospital;Peshawar.

Presenter: DR.MAIMOONA QADIR

Objective: The aim of study was to find out the characteristics of obstetric referrals and their causes.

Methodology: This prospective observational study was conducted in Gynae B unit, Khyber Teaching Hospital, Peshawar from 1st January 2021 to 31st December 2021. All obstetric cases referred to this hospital during the study period were included. Detailed clinical history including the age, parity, period of gestation if antenatal, place of referral were recorded. Thorough general physical and obstetrical examination was performed and required investigations sent. Management of patient whether delivered vaginally or by caesarean section, or put on conservative management was documented. Data analysis was done using 22.0.

Results: Total obstetric admissions during the study period were 5242, and total referrals for obstetric indications were 1678, which makes it 32% of all obstetric admissions. 1241 (74%) of cases fall in the age group of 20-30 years, whereas 234 (14%) were less than 20 years of age and 201 (12%) were more than 30 years. 588 (35%) of patients were primigravidas, 453 (27%) were multi and 335 (20%) were grandmultigravidas. 56% of the patients presented in the antenatal period, whereas 604 (36%) arrived in intrapartum and 302 (18%) in postpartum period. Mode of transport used by the referred patients was ambulance in 369 (22%) and private vehicles in 1308 (78%) cases. Haemorrhagic (28%) and hypertensive disorders (18%) were the commonest reasons for obstetric referrals.

Conflict of interest: None

Conclusion: It is concluded that a wide spectrum of complicated obstetric cases are referred to our tertiary care hospital. Haemorrhagic disorders, Hypertensive disorders, anemia, non availability of OTs, obstetricians and blood, previous caesarean sections are few commonest causes of obstetric referrals apart from many others.

ROLE OF GENITAL TUBERCULOSIS IN SUBFERTILE WOMEN

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ABSTRACT

Background:

First time in 1744 Morgagni presented the autopsy report of a young woman which showed signs of female genital tuberculosis, it is a type of extra pulmonary tuberculosis with rising incidence globally. In countries with high prevalence of tuberculosis, genital tuberculosis is an important etiological factor for subfertility.

The incidences reported by South- East Asian countries is between 5% to 15%. Early detection and appropriate combination of treatment regimens with adequate dosage of drugs can decrease tubal destruction and permanent subfertility in the women.

Objective:

To evaluate the role of Acid Fast Bacilli culture in sub fertile women undergoing laparoscopy and dye test with endometrial biopsy.

Methodology:

This prospective cross sectional study was carried out from 1st January 2020 to 30th April 2021 in gynaecology department. Sample size calculation was done by openEpi, taking 6.73 % prevalence of genital tuberculosis in subfertile women, 95 % confidence interval and 5 % margin of error.

One hundred and eight cases of subfertility fulfilling the selection criteria were enrolled for the diagnostic laparoscopy & dye test with endometrial biopsy for AFB culture. Non probability consecutive technique was utilised for sample collection. After complete clinical evaluation, informed consent obtained before procedure. We included all women of reproductive age with >2yrs of sub fertility, normal menstrual history & hormonal assay & normal male factor i.e normal semen analysis. All women with comorbidities, women having contra indications for anaesthesia & couple with male factor sub fertility were excluded. Data analysis was done by Statistical Package for Social Sciences (SPSS) version 20. Results were presented in tables & diagrams.

Result:

One hundred and eight cases of subfertility fulfilling the selection criteria were enrolled for this study, 3 age groups of subfertile women were obtained 18-24 years (16.7%), 25-31 years (40.7%) and 32-38 years (42.6%). Cases of primary subfertility were 66.7% and secondary subfertility were 33.3%. Duration of subfertility was < 5 years in 41.7%, 6-10 years in 47.2% and >10 years in 11.1% cases. 90.7% of women had both tubes patent whereas rest of women had unilateral patent tubes i.e: right sided tubal patency 6.5% and left sided tubal patency 2.8%, hence overall 100% tubal patency was observed.

Endometrial biopsy of 20.4% cases turned out positive for AFB culture. Surprisingly none (n=22) of them had blocked tubes, 17 patients had bilateral patency and 5 had unilateral patent tubes. Which implies that anatomical health (patency) of tubes might not correspond to the physiological status (function) of tube and reproductive organs. So in female genital tuberculosis, tubal sparing from blockade doesn't reflect its degree of destruction at cellular level. Moreover positive cases were offered antituberculous treatment and three women out of these positive cases got pregnant during the course of this research study.

Conclusion:

Frequency of Female Genital Tract Tuberculosis is 20.4%. In this study although not very high but this medical condition has serious implications in terms of morbidity. So, AFB culture could be considered as a judicious part of subfertility workup in low resource countries.

Keywords:

Acid Fast Bacilli (AFB) culture, Female Genital Tuberculosis (FGTB), Tuberculosis (TB), Endometrial Biopsy, Sub-fertility.

AN EXPERIENCE OF CHRONIC VILLUS SAMPLING IN LADY READING HOSPITAL PESHAWAR

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Introduction and Objective: Despite the fact that CVS is practiced for more than two decades in major cities of Pakistan it has been recently started in Khyber Pakhtunkhwa. The objective is to determine the outcome of chorionic villus sampling for prenatal diagnosis of inherited diseases of this new service offered.

Material and Methods: This descriptive study was conducted from July 2017 till December 2018 on 70 antenatal ladies having 11 to 14 weeks singleton pregnancy and with history of genetic disorders in family or children. It was carried in the Department of Obstetrics and Gynaecology, Lady Reading Hospital, Peshawar. Chorionic villus sampling (CVS) was performed by Obstetrics and Gynae consultants via transabdominal route under local anaesthesia and ultrasound guidance. Written informed consent was taken from all the participating couples before starting the process. By using SPSS version 23, statistical analysis was done.

Results: A total of 70 samplings were done. Miscarriage as a result of the procedure occurred in 1/70 (1.42%), significant pain requiring intramuscular analgesia occurred in 40 (57%) patients and there were no reported cases of infection. Failure to retrieve sample occurred in 4 (5.7%) patients requiring repeat procedure after 10 days. 3 (4.2%) patients reported vaginal bleeding within a week after the procedure. After DNA analysis of the submitted samples, it showed thalassemia major 15 (21.42%), thalassemia minor 30 (42.85%), no mutation 22 (31.42%) and down syndrome 1 (1.42%).

Conclusion: Chorionic villus sampling was found to be a safe procedure for prenatal diagnosis of genetic disorders in first trimester.

TITLE OF THE ABSTRACT:

Prevalence, Risk Factors, and Fetal and Maternal Outcomes of Hypertensive Disorders of Pregnancy: A Retrospective Study in Qazi Hussain Ahmed Medical Complex, Nowshera

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OBJECTIVES:

Every hour, 3 women die in Pakistan due to pregnancy and childbirth related morbidities. Pregnancy related hypertensive disorders are frequently experienced all over the world having a prevalence of 8-10% of all pregnancies. They are observed to be the striking cause of adverse maternal and fetal outcomes. In UK, hypertensive disorders in pregnancy are considered as 2nd largest cause of both direct maternal death and perinatal loss. Hypertension in pregnancy is defined as systolic blood pressure of >140mmHg and diastolic blood pressure of >90 mmHg. The main objective of our study was to determine the prevalence, risk factors with maternal and fetal outcomes of hypertension in pregnancy in our set-up.

MATERIALS AND METHODS:

A retrospective cross-sectional study was conducted in Gynae Department, Qazi Hussain Ahmed Medical Complex, Nowshera over the period of 1 year. 552 patients who had hypertensive disorders in pregnancy were recruited. Self-administered and structured questionnaire was used for data collection. The risk factors in patients and the fetomaternal outcomes were manually extracted from the history sheets and evaluated. SPSS version 22.0 was used for data analysis.

RESULTS: The prevalence of hypertensive disorders in pregnancy was 13.9% in this study. Pregnancy induced hypertension was the most frequent hypertensive disorder with a prevalence of 57.97%. 61% of the total hypertensive patients had no antenatal booking making it the most common risk factors in pregnant hypertensive patients. 38% of patients had high blood pressure in previous pregnancies as well. 56.5% of patients admitted had normal vaginal delivery, 4.5% of patients had instrumental delivery and 39% had lower segment caesarean section. 17.75% of the total patients developed maternal complications and among them the most frequent maternal complication was post-partum hemorrhage (7.4%). 49.3% newborns developed neonatal complications where the most common neonatal complication was preterm deliveries (21.9%).

CONCLUSION: The prevalence of hypertensive disorders was relatively high in our cohort. However, to reduce the fetomaternal morbidities and mortalities, awareness regarding hypertensive disorders should be increased at the community and hospital level and screening of this disorder should be proposed at early gestation.

Diagnostic reliability of mentzer index for differentiating thalassemia trait from iron deficiency anemia using HPLC

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Abstract

Objective: The aim of the present study was to find out the diagnostic value and also the sensitivity and specificity of the Mentzer index in differentiating the beta-thalassemia trait from iron deficiency anemia.

Methods:

This cross-sectional study was conducted in Hematology department of Hayatabad Medical Complex . Khyber Girls Medical College Non-consecutive sampling was applied. A total of 860 with hemoglobin <11 gm/dl were included. Their complete blood counts were checked and Mentzer Index was calculated. Mentzer Index <13 points to diagnosis of β TT and >13 indicates IDA. The diagnoses were confirmed by serum iron studies and Hb electrophoresis. The sensitivity and specificity of Mentzer Index for both causes of microcytic hypochromic anemia was calculated

Results:

Mean hemoglobin level of patients was 9.01 ± 1.85 . Minimum and maximum hemoglobin value was 2.90 and 12.90. Mean RCB level was 4.66 ± 4.59 minimum and maximum RCB value was 1.07 and 136. Mean MCV value was 63.89 ± 9.01 . Minimum and maximum MCV value was 39.40 and 92.10 respectively. Men Mentzer index was 15.70 ± 7.68 . Minimum and maximum Mentzer index value was 7.80 and 107 respectively. Based on Mentzer index criteria 489 (56.86%) patients had iron deficiency anemia and 371 (43.14%) patients had higher suspicion of beta thalassemia.

Conclusion: In this study, it was found that Mentzer Index can be used as a discriminatory test to differentiate between iron deficiency anemia and beta thalassemia trait. The high risk group can then be subjected to definitive diagnostic tests. This can result in better patient compliance and cost effectiveness.

Keywords:

Mentzer Index, Anemia, Thalassemia

TITLE:

IMPLEMENTATION OF CERVICAL SCREENING PROGRAMME USING GOLD STANDARD LIQUID BASED CYTOLOGY WITH TRIAGE OF CERVICAL LESION FOR HPV TESTING IN MTI LADY READING HOSPITAL

Principle investigator: Dr Farnaz Zahoor AP OBGYN LRH

Co-investigators: Dr Sanaullah Cytologist MTI LRH

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Background and Rationale:

Carcinoma cervix counts for one out of 10 cancers related to female gender throughout the world¹. It is the fourth most common cancer in the world and diagnosed mostly in women of less than 35 years of age¹. The highest rates of cervical carcinoma have been reported in Zimbabwe, where 67.21 per 100,000 women/year were diagnosed^{2,4}. In England, the rate of cervical cancer was reported to be 2.2 per 100,000 population in 2010 (The NHS Information Centre, 2011). The exact incidence and prevalence of cervical cancer is not known in Pakistan because it is an ignored disease in terms of screening and prevention.

According to the Globocan cancer statistics for 2020^{2,3} released by the International Agency for Research on Cancer, 5,008 Pakistani women were diagnosed with cervical cancer every year, i.e. 6.1 per 100,000 women while 3,197 succumbed to the disease, making the death rate for cervical cancer in the country a staggering 60 per cent, making it one of the top 10 countries with the highest female mortality rates². Early detection can prevent 80%^{2,3}

Regular screening is offered by NHS Cervical Screening Program⁴ (NHSCSP) with aim to achieve 80% coverage. Coverage is the proportion of women eligible for screening who have had a test with a recorded result at least once in the previous 5 years. Women between 24 – 64 years are eligible. If an overall coverage of 80% can be achieved, the evidence suggests that a reduction in death rates of around 95% among women vulnerable to cervical cancer is possible in the long term. 70.2% of eligible individuals aged 25 to 64 adequately screened in last year 2022⁴. There is no such screening programme or coverage in Pakistan.

Though a preventable disease, the mortality rate due to cervical cancer⁵ is very high in Pakistan because it is an ignored ailment in terms of screening, prevention and vaccination. More than 70% of cancer patients are reported with very advanced stage of malignancy and this is the cause of the high rate of mortality in Pakistan with 5 year survival rate of 17%⁵

In Pakistan very few studies are done regarding HPV strains. In meta-analysis done by Syeda Batool⁶ during the previous 11 years (2005-2015) that reviewed many aspects of cervical cancer in Pakistan, suggested that infections associated with human papillomavirus posed the greatest

risk of carcinoma and consequent mortality rate, especially because of poor knowledge of screening. Emphasis is laid on a need to organize proper screening programme taking into account what already is known about Pakistani women.

No such study is present regarding determining strains of High Risk Human Papilloma Virus (hrHPV) in Peshawar, Khyber Pakhtunkhwa, Pakistan. This project will help us in determining not only strains of HPV but will initiate a regular screening with additional information regarding HPV strains..

HPV testing as compared to cytology has a very high (97%–100%) negative predictive value (NPV) ^{7,8,9} sensitivity of 97.5% and specificity of 84.3%. Therefore, a woman with a negative HPV test result has an extremely low probability of developing any cervical lesions in the next 5 year may permit a shortening of the follow-up period necessary ^{10,11,12}. HPV testing could be a useful strategy for managing follow-up after treatment for precursor lesion and, Thus, HPV screening offers a great opportunity to improve the effectiveness of cervical cancer screening.

Processing of HPV tests is automated, results do not require subjective interpretation as in cytology and in VIA, and thus more objective results are obtained with HPV testing than other screening tests. HPV testing is more cost-effective ¹³ than VIA or Pap smears, although it may require higher up-front costs for supplies and equipment but in long run it is cost-effective.

The increasing trend of cervix carcinoma, its identification/diagnosis at advanced stage, increasing cost of treatment with poor survival rate and poor knowledge about screening have increased the burden of carcinoma of cervix. Although, the incidence of cervix carcinoma in Pakistan is lower than other western countries, but mortality rate is higher due to the scarcity of awareness, unavailability of Pap smear test, lack of follow-up and late presentation of cervical cancers. Late-stage diagnosed condition needs implementation of screening programme on the national level and to enhance the public health education to save the lives of Pakistani women. This research project will not only help to implement a screening programme and give us the knowledge about strain of HPV in KPK but in long run will also help in registration of all high risk patient who needs shorten followup screening plan.

Objectives:

Objectives of the study include:

To perform primary screening tests for cervical cancer, using combine cervical cytology and HPV/DNA testing (quantitative PCR) in female patients visiting Gynecology Out Patient Department (OPD) or admitted in Gynecology wards of the tertiary care hospitals of Peshawar including LRH/MTI, KTH/MTI, and HMC/MTI Peshawar

To determine the types of HPV strains prevalent in HPV positive patient in tertiary care hospitals of Peshawar including LRH/MTI Peshawar⁴.

To register all HPV positive patients and follow up for phase 2 of the study which involve

treatment.

Methods:

Study Design:

The proposed study will be a Cross-Sectional Descriptive Study.

Ethical Approval

Study to be conducted after approval of Institutional Ethical Board, by Gynaecology Department Lady Reading Hospital. A total of 1000 participants/patients will be recruited in this study after their informed written consent.

Inclusion Criteria:

Patients (25–64 years of age) presenting to Out Patient Department of (OPD) of Gynaecology with intact uterus /or cervix, will be screened for HPV after agreeing to participate in the study and will be provided information before and after the HPV test is taken. She will be communicated HPV results and followup plan and treatment will be discussed in case of positive hrHPV. The proportion will vary by populations, but typically 10%-15% of all screened women will require follow-up care.

Exclusion Criteria:

Patients who are antenatal, postnatal <40 days or with absent uterus and cervix, known case of genital tract malignancy, will be excluded from study.

Sample Size:

About sample size of 10,000 will be recruited in this study

Study Period:

Duration of study will be till sample size is completed.

Sample Collection:

Sample collection for HPV testing will be performed during a gynecological examination, where the health worker, after inserting the speculum, will remove a sample of cervical cells using a specially designed brush cytobrush. The sample is then placed in a collection tube that contains a liquid transport medium. The tube will be properly labeled with the person's first and last names and a personal identification number. The tube is then sent, in a timely and secure manner, for analysis to a molecular biology laboratory that will process the HPV test. Samples will be sent to the laboratory in less than 7 days following collection, to avoid having to be

discarded. Coordination is vitally important between the health workers (residents), where specimens are collected, and the laboratory where the tests are processed. Collection tubes in OPD will be stored at room temperature (15-30 °C) and transport to the laboratory does not require refrigeration. The tubes can be preserved for 2-3 weeks at room temperature. In the laboratory, samples can be preserved for up to one additional week at 4 °C and up to 3 months at -20 °C. It is important in this regards as those patients whose HPV testing is positive require this sample for further processing for cytology whether any dyskaryosis are seen or not and grade changes.

HPV Kits:

HPV tests vary and use different methods to detect the HPV: some HPV tests will detect the DNA and other HPV tests will detect E6/E7 mRNA. In this study we will use Hybrid Capture 2 (Qiagen), it directly identify the DNA of one or more oncogenic HPV types without prior DNA amplification. At present, over 150 HPV types have been described, of which approximately 50 cause infections of the genital epithelium. HPV types considered oncogenic are 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, and 68.

Hybrid Capture 2 (HC2) test detects high-risk HPV types (HR-HPV) by means of a probe cocktail for 13 HR-HPV. It is a technique in which DNA hybrids are identified with RNA probes. The Hybrid Capture 2 (HC2) technique was originally developed by the Digene Corporation (Maryland, U.S.A) and is currently produced by Qiagen (Maryland, U.S.A). Since 2000, this kit has the approval of the United States Food and Drug Administration (FDA) for routine use in early detection activities in combination with cytology. In the laboratory, cervical cells are subjected to an alkaline denaturation solution that exposes the genetic material. Subsequently, through the use of an RNA probe cocktail (with 13 types of HR-HPV: 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68) a viral-RNA: DNA hybrid is formed in the presence of any of these viruses. Hybridization is identified through specific antibodies and a chemiluminescent solution that emits light in the presence of hybrids. A luminometer is required to detect hybrids. The test is reported as positive when light is emitted and negative when it is not, according to the final reading of the chemiluminescence signal. A positive test means that the woman has been infected by one or more of the 13 HR-HPV type. This test can identify the HPV type or whether one or more HPV types are present.

Delivery of results depends on the time needed to fill the machine, which can be approximately 15 days. With the automated method, delivery time is approximately five hours for 352 samples per run.

HPV Results:

HPV test will identify following groups of women:

HPV type will be determined in all positive cases whether high risk or low risk HPV.

Women who are low Risk- HPV negative, which, given the test's high negative predictive value, do not need to be re-screened for at least 5 years; and women who are High Risk-HPV positive, will require follow-up care or treatment. They will be called and referred for treatment, if abnormal cytology.

Phase 2 of study will include follow up of abnormal cytology /HPV positive patients registration and treatment plan.

Subject Safety:

HPV testing just involves taking swab from cervix which is noninvasive method .It is highly safe method of screening.

Confidentiality:

Confidentiality of patient will be maintained.

Statistical Analysis:

Expected Results and Significance:

In an estimated screening program, an estimated 12% of women screened will be High Risk-HPV positive. It is seen that 2% (200 woman if 80% of population is screened) will be precancerous /cancerous and may need treatment and thus reduction in death rates of around 95% women vulnerable to cervical cancer is possible in the long term.

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13. [Diana Bhadra Vale¹](#), [Marcus Tolentino Silva²](#), [Michelle Garcia Discacciati¹](#), [Ilana Polegatto¹](#), [Julio Cesar Teixeira¹](#), [Luiz Carlos Zeferino¹](#)
Is the HPV-test more cost-effective than cytology in cervical cancer screening? An economic analysis from a middle-income country

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Exploring Causes Of Still births Through Recode Classification: A 4 Year Experience In Tertiary Care Hospital

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INTRODUCTION:

Throughout the developed regions of the world, healthcare systems are using various classification systems for recording stillbirths. These include ReCoDe (relevant condition at death), PSANZ-PDC, Tulip and CODAC. Aim of recording this data is not only to document different causes of stillbirths, but also to identify areas where productive efforts can be made in healthcare systems to bring down stillbirth rate, in the context of available resources, cost-effectively by bringing a change in modifiable risk factors. In our study we have tried to collect and organize the data related to the causes of stillbirths in patients presenting to tertiary care hospital, in light of ReCoDe classification system with an aim to identify areas where cost-effective strategies can be designed to bring improvement in this neglected area of healthcare.

MATERIALS AND METHODS: This was a descriptive study, with non-probability consecutive sampling, carried out from January 2016 till December 2019 in Lady Reading Hospital, which is a tertiary care hospital. Ethical approval was taken for the study. Relevant condition at death was recorded against the following headings under ReCoDe classification (along with the sub classifications) as a. Fetus b. Umbilical cord c. Placenta d. Amniotic fluid e. Uterus f. Mother g. Intrapartum h. Trauma i. Unclassified. Data was analysed on the Statistical Package for Social Science (SPSS) version 23.

RESULTS: The stillbirth rate recorded over 4 studied years was 7.8%, 6.4%, 5.9% and 4.7% in 2016, 2017, 2018 and 2019 respectively. It was observed that the most common relevant conditions at birth of stillborn babies were associated with fetal, maternal and placental causes. Fetal causes were, however, mainly contributed by congenital abnormalities (65.63%, 79%, 58.11% and 74% respectively). Among the placental causes, placental abruption remained the main killer (54%, 72%, 78% and 76%). Among the maternal causes, diabetes and hypertension contributed the most. Of other notable causes, ruptured uterus was found to be an important entity taking its toll each year (6%, 4%, 6% and 5.3% respectively).

CONCLUSIONS: ReCoDe classification is effective for use as data recording tool related to stillbirths.

Medical College Student's Perception Regarding Currently Adopted Teaching Methodologies and Their Effectiveness, A Cross-Sectional Study

ABSTRACT

Objective: Medical education is based upon innovating teaching strategies to teach more problem-solving attitudes in medical students. Teaching methodologies have evolved over the last few decades with the sole purpose of making teaching and learning interactive for students. This study aimed to evaluate the teaching methodologies and their effectiveness concerning students' perceptions.

Material and Methods: We conducted this cross-sectional study for six months. We included 424 medical students from public and private sector medical colleges who were willing to participate in the study. We used a pretested questionnaire for the data collection, and data were analyzed using SPSS Version 24.

Result: In this study, 57% of participants were female, and 43% were male. As per student perception, the most preferred teaching methodology was task-based and small group discussion. The most ineffective method for students was self-directed learning and conventional lectures. Most students perceive that small group discussions augment lateral thinking.

Conclusion: The findings of the current study suggest that a blend of both conventional lectures and innovative theoretical and clinical teaching methodologies could be effective for teaching medical college students as a clear perception regarding different teaching methodologies and their effectiveness exists among these students.

Key Words: Medical Students, Perception, Preferences, Teaching Methods

“Prevalence of third- and fourth-Degree Perennial Tears in DHQ Hospital, Swabi”

By

1. Dr Sara Gul
2. Dr Amina Bibi
3. Dr Tabassum Ali

Abstract:

Introduction: Perineal tears of the third and fourth degree, also known as obstetric anal sphincter injuries, are a frequent condition of vaginal childbirth that can be caused when the baby's head pushes against the perineum. These accidents cause significant damage to the muscles and tissues surrounding the anus, and they can result in long-term consequences such as incontinence, chronic discomfort, and sexual dysfunction.

Objective: This study aimed to ascertain the prevalence of third- and fourth-degree perineal tears and evaluate impact of appropriate therapy.

Methods: This is a retrospective cohort study sampled in DHQ Hospital Swabi from January to December 2022; Nulliparous women with some 3rd or 4th degree perennial tears were also included.

Results: The percentage of sustainable perenial tears delivered is only 0.56%. Observably, using forceps / vacuum during delivery increases the likelihood of these tears occurring during labor and delivery. They must be repaired in a manner that is both sufficient and completed promptly.

Conclusion: It is crucial to enhance maternal healthcare and increase the availability of skilled experts during childbirth to limit the number of women who experience severe perineal lacerations and raise the overall state of maternal health in the country. This will allow for a reduction in the number of women who suffer from severe perineal lacerations. It would be possible to avoid and treat third- and fourth-degree permanent tears if access to high-quality maternal healthcare was expanded and the number of skilled medical personnel present during childbirth was increased.

Menstrual Patterns of Reproductive Age Group Women and Their Association with Thyroid Dysfunctions

Menstrual
Patterns of
Reproductive
Age with Thyroid
Dysfunctions

Amina Bibi, Tabassum Ali, Tariq Mahmood and Sara Gul

ABSTRACT

Objective: This study was designed to evaluate the menstrual cycle patterns including cycle-specific characteristics and explore their relationship with thyroid hormones by measuring the levels of urine hormones in premenopausal women.

Study Design: Prospective Cohort Study

Place and Duration of Study: This study was conducted at the District Head Quarter Hospital Swabi from August 2021 to August 2022.

Materials and Methods: This prospective cohort study was conducted to evaluate the menstrual patterns and thyroid association among reproductive women. Data was collected by a pre-designed questionnaire and clinical diagnosis of thyroid performed by physicians. Menses were defined as two consecutive days of bleeding proceeding by three consecutive days of spotting. For monitoring, menstrual cycle patients were asked to submit their first urine void sample and kept their daily menstrual diaries for at least three menstrual cycles. We used univariate analysis for the distribution of each hormone. The log method was used to transform the TSH into a normal distribution. A linear mixed random effect model was used for those results reporting single outcomes.

Results: This study recruited 140 women with irregular menstrual patterns. Out of 140, a total of 52 cases of oligomenorrhea, 12 cases of neuropathic, 43 cases of polymenorrhagia, and 33 cases of menorrhagia were detected. These women reported a total of 423 cycles. We recruited cases between the age range of 18 to 45 years. A high association was observed between total T4 and Pd3G and E13G throughout the follicular and luteal phases. At various timeframes, we observed a high association of total and free T3 with high E13G concentrations. These T3 levels were also associated with Pd3G.

Conclusion: We observed that thyroid hormone levels were associated with several menstrual cycles. Across the menstrual cycle, a positive correlation between T4 and T3 indicates the effect of hormones on the female reproductive system.

Key Words: Menstrual cycle, Thyroid dysfunctions, Hormones

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INTRODUCTION

Menstrual cycle function plays an important role in reproductive health and fertility. The menstrual cycle is defined by the complex endocrine axis which is responsible for controlling ovaries and endometrium and represents the underlying hormonal milieu of the reproductive system of women. Therefore, the menstrual cycle is a major indicator of reproductive health and provides a pathway for epidemiologic research.^{1,2}

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The Gonadotropins network and sex steroid hormones constitute the hypothalamic-pituitary-gonadal system. This system controls thyroid functions.³ However, the association between thyroid functioning and female reproductive physiology is still debatable. The incidents of thyroid disorders are more prevalent in females than males. Thyroid disorders fluctuate the estrogen levels affect the menstrual patterns leading to menopause.⁴ Incidents of menstrual disturbances are more highly reported in women suffering from hypothyroid and hyperthyroid than in euthyroid women.⁵ Previous studies observed oligomenorrhea and menorrhagia in patients of hypothyroid whereas hypomenorrhea is highly reported in hyperthyroid women.⁶⁻⁹ However, associations between thyroid disorders were found in clinical-based studies while very limited research reported an association with thyroid hormones. Furthermore, these studies were based on self-reported menstrual outcomes and integrated different outcomes as menstrual “disturbances” or “irregularities”.^{8,10} Therefore, the results of these studies are not strong enough to clarify the relationship between menstrual

patterns and thyroid functions. To fill this gap this study was designed to evaluate the menstrual cycle patterns including cycle-specific characteristics and explore their relationship with thyroid hormones by measuring the levels of urine hormones in premenopausal women.

MATERIALS AND METHODS

This prospective cohort study was conducted to evaluate the menstrual patterns and thyroid association among reproductive women in Gynaecology Department of DHQ sawabi hospital from August 2021 to August 2022. For this study, all the premenopausal women were eligible however, lactating or pregnant women were excluded. All the participants who were currently on thyroid medication were also excluded. Data was collected by a pre-designed questionnaire and clinical diagnosis of thyroid performed by physicians. This pre-designed questionnaire entailed information on thyroid medication used by participants and the menstrual cycle. Menses were defined as two consecutive days of bleeding proceeding by three consecutive days of spotting. For monitoring, menstrual cycle patients were asked to submit their first urine void sample and kept their daily menstrual diaries for at least three menstrual cycles.¹¹ Three menstrual cycles were defined as weeks for oligomenorrhea while diaries enlisted information about cramps, bleeding, stress, medication, and exercise habits. Urine samples were used to measure the estrogen and progesterone metabolites, estrone 3-glucuronide (E13G), and pregnanediol 3-glucuronide (Pd3G) within 17 days of the ovulation window. For measuring these parameters we used double-antibody time-resolved fluoroimmunoassays. At the research laboratory of our institution we analyzed the thyroid-stimulating hormone (TSH), total and free thyroxine (T4), and total and free triiodothyronine (T3) by using an immunoassay analyzer. For this purpose, the blind control method was used to strengthen the results. The self-reported bleeding intensity was measured by using a scale ranging from 0 to 4 grades throughout menses. We used the definition of Baird et al¹² for hormonal outcomes.

Statistical Analysis: All the data from the questionnaire and laboratory tests were transferred to the excel sheets for performing statistical analysis. We used univariate analysis for the distribution of each hormone. The log method was used to transform the TSH into a normal distribution. A linear mixed random

effect model was used for those results reporting single outcomes. This linear effect model helps us in measuring individual correlations among multiple menstrual cycles per woman. We adjusted age and thyroid hormones as fixed effects for measuring the association between each thyroid and menstrual cycle outcomes. Coefficient Beta analysis was used for comparing the 3-day GM outcomes while the medium was treated as a reference because a previous study mentioned that both hypothyroid and hyperthyroid patients suffer from menstrual cycle disruption. An association between thyroid hormones and E13G and Pd3G was observed by fitting the linear mixed model. All these tests were performed by using the statistical package for Social Science (SPSS) version 23.0.

RESULTS

This study recruited 140 women with irregular menstrual patterns. Out of 140, a total of 52 cases of oligomenorrhea, 12 cases of neuropathic, 43 cases of polymenorrhagia and 33 cases of menorrhagia were detected. These women reported a total of 423 cycles. We recruited cases between the age range of 18 to 45 years. Women with experience of 1-2 (45%) pregnancies had high irregular menstrual patterns than others. We observed that 55.7% were obese, 63.5% never do any kind of exercise and 44.2% had moderate levels of stress. Detailed findings were presented in Table 1. In table 2, we presented different mean levels of total triiodothyronine, thyroxine, and Thyroid-stimulating hormone concerning the menstrual cycle, bleeding length, bleeding intensity, follicular phase length, and luteal phase. We observed that bleed length decreased with age obese women had longer cycles than others. We observed high FSH in women aged 41–54. No association of thyroid hormones was found with cycle length. However, we observed a significant association of free T4 levels with decreased cycle length. This association was observed due to variations in follicular phase length. No association of thyroid hormones was found between bleeding intensity while body mass index was independently associated (Table 2). Correlation Beta analysis was performed in table 3. A high association was observed between total T4 and Pd3G and E13G throughout the follicular and luteal phases. At various timeframes, we observed a high association of total and free T3 with high E13G concentrations. These T3 levels were also associated with Pd3G.

Table No.1: Characteristics of premenopausal women

	Total number of participants	Mean TSH (μIU/ml)	Mean Total T4 (μg/dl)
Age			
41-45	19 (13.5%)	1.56	9.7
36-40	40 (28.5%)	1.68	9.2
31-35	33 (23.5%)	1.6	9.33
26-30	28 (20%)	1.31	9.71

High	1.0 (-1.4, 3.3)	0.7 (-1.3, 2.7)	2.2 (0.7, 3.8)	2.2 (1.0, 3.4)	7.4 (2.3, 12.4)	3.2 (-2.0, 8.4)
Medium	8.1 (6.0, 10.2)	4.8 (2.9, 6.6)	9.5 (8.1, 10.9)	7.9 (6.7, 9.0)	34.3 (29.4, 39.2)	28.5 (23.9, 33.2)
Low	-0.8 (-3.5, 1.8)	-0.9 (-3.3, 1.4)	-1.4 (-3.2, 0.4)	-0.9 (-2.3, 0.6)	-0.6 (-6.8, 5.5)	-0.9 (-7.1, 5.2)
Thyroid-stimulating hormone						
High	-0.7 (-3.1, 1.7)	-0.4 (-2.6, 1.7)	0.7 (-1.0, 2.4)	0.6 (-0.8, 2.0)	-3.5 (-9.0, 2.0)	-0.3 (-5.5, 5.0)
Medium	8.4 (6.4, 10.3)	4.9 (3.1, 6.6)	9.6 (8.2, 11.0)	8.2 (7.1, 9.4)	38.0 (32.7, 43.3)	30.1 (25.7, 34.4)
Low	0.2 (-1.3, 1.7)	0.0 (-1.4, 1.3)	-0.2 (-1.3, 0.8)	-0.2 (-1.1, 0.7)	1.0 (-5.0, 7.0)	-0.9 (-4.1, 2.4)

DISCUSSION

In this prospective cohort, thyroid hormones were examined to evaluate their effect on menstrual patterns. In this study, we found a positive association of high T4 with elevated levels of Pd3G and E13G throughout the menstrual cycle while low T4 levels were correlated with Pd3G, especially at the follicular phase. Meanwhile, several times during the menstrual cycle, we observed a positive correlation of total and free T3 with Pd3G and E13G levels. We observed that T4 was associated with the length of the menstrual cycle and similar findings were observed while adjusting the covariates. In the current study associations between cofounders and hyperthyroidism were observed in 3-day hormonal outcomes. Evaluation and interpretation of thyroid hormones and their association with menstrual cycle function are hard. However, many clinical studies observed menstrual disruption in women suffering from thyroid disorders. One of the studies observed elevated estrogen levels during pregnancy which leads to boosting total T4 due to thyroxine-binding globulin (TBG).¹³

In the current study, serum samples were collected before monitoring the menstrual cycle. These serum samples were used to measure the thyroid hormones so there is a great possibility that enhanced levels of pre-existing TBG increased the T4 concentration and resulted in a positive correlation of E13G and Pd3G. Therefore, we failed to produce meaningful results to explain the relationship. Comparing our results with International literature one previous study revealed high free T4 in the progesterone therapy group than in the placebo group.¹⁴ This study observed a positive correlation between progesterone and thyroxine due to similar metabolic pathways. Both of these hormones are involved in maintaining basal temperature and energy expenditure. Albumin is the main carrier of both these hormones however, only 10% thyroxine was transported by albumin.¹⁵ The positive correlation between T4 and E13G was observed in our study. These results are parallel to the previous studies which observed increased plasma estrogen levels in

hyperthyroid women during their menstrual cycle.^{16,17} One of the hypothesis claim that elevated T4 hormones also enhanced the sex hormones binding globulin.⁵ These sex hormones enhanced estrogen levels and reduced clearance rates.¹⁷ In hyperthyroid women, many studies reported increased amounts of androgen production and estrogens. Our study revealed similar results despite the variations in sample size as the study design. Similar levels of thyroid hormone and urinary estrogen metabolites were observed¹⁸ but our study shows contradictory results when measuring plasma or serum estradiol concentrations.

Previous studies also reported the influence of behavior and environmental toxicants that affect thyroid functions. A disturbance in thyroid functions also menstrual cycles and the reproductive system.^{19,20} However, in this study, BMI was not strongly associated with thyroid functions. In the current study, 89% of participants were exposed to persistent organic pollutants (PBB). These results were detected in their blood samples. These results indicate a direct and causal relationship between thyroid hormones and menstrual patterns when compared with other studies. This prospective cohort study monitored many menstrual cycles and has an edge over other self-reported studies. Observations over multiple cycles reduced the chances of misclassification and validate the results. However, our study has many limitations including a small sample size. In our study, we also observed two perimenopause cases. One of the women had a small menstrual cycle while one was amenorrhea however both these cases showed hormonal evidence of ovulation and eliminating both findings does not affect our overall results. We did not measure serum reproductive hormones. Our study was not able to detect the independent association of thyroid hormones due to low statistical power.

CONCLUSION

In conclusion, we observed that thyroid hormone levels were associated with several menstrual cycles. Across the menstrual cycle, a positive correlation between T4

and T3 indicates the effect of hormones on the female reproductive system.

Author's Contribution:

Concept & Design of Study: Amina Bibi
 Drafting: Tabassum Ali, Tariq Mahmood
 Data Analysis: Tabassum Ali, Tariq Mahmood
 Revisiting Critically: Amina Bibi, Tabassum Ali, Sara Gul
 Final Approval of version: Amina Bibi

Conflict of Interest: The study has no conflict of interest to declare by any author.

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ABSTRACT TITLE :

To Determine the Perinatal Outcome In Isolated Oligohydramnios At Term Pregnancy

AUTHORS:

1.Dr.RabeeaSadaf,(FCPS) , 2.Dr.Saman Muddassar,(FCPS), 3.Dr.Nasreen Kishwar,(FCPS) ,

BACKGROUND:

The incidence of oligohydramnios varies widely, from approximately 0.5% to 5%, depending on the study population. Oligohydramnios can be isolated or associated with maternal or fetal conditions such as hypertension, premature rupture of membranes, fetal growth restriction and congenital anomalies. While perinatal outcomes of associated oligohydramnios are related to the underlying condition, the natural history of isolated oligohydramnios is unclear. In post-term pregnancies, placental insufficiency has been proposed as main factor of reduced amniotic fluid volume. Alternatively, the maturation of the renal system can lead to a physiological increase of amniotic fluid absorption.

OBJECTIVE:

A study to determine the perinatal outcome in isolated oligohydramnios at term pregnancy.

MATERIALS AND METHODS:

This prospective case control study was carried out in Department of Gynecology and Obstetrics, Hayatabad Medical Complex from August 2022 to January 2023. The sample size 250 were divided by 1:1 including 125 cases with isolated oligohydramnios and 125 control cases with normal amniotic fluid. The Inclusion criteria for cases and control were same including :term Pregnancy(37-42 weeks), Singleton pregnancy, Any Parity, BMI and mode of delivery, cephalic presentation. Patients with chronic medical disorders and having fetal anomalies or IUGR were excluded. The mode of delivery was noted. Neonatal outcome in the form of apgar score, baby weight and need for NICU were noted.

RESULTS:

The cases with isolated oligohydramnios were associated with an increased incidence of CTG changes(56%), meconium stained amniotic fluid(47.2%) and cesarean section(51.2%) as compared to women with normal amount of amniotic fluid. There was no difference between group A and group B as regards duration of labor, need for oxytocin augmentation, need for neonatal resuscitation, APGAR score at 5 minutes, NICU admission and birth weight of neonates. Significant association ($P<0.001$) was found between caesarean section in mothers with isolated oligohydramnios compared to controls.

CONCLUSION: Our study found increase cesarean section rate due to CTG changes and meconium stained liquor in isolated oligohydramnios. However neonatal outcome in the form of birth weight, apgar score and NICU admission was same for both cases and control.

KEY WORDS: Oligohydramnios, Perinatal ,Term Pregnancy

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Effect Of Single Bout Of Moderate And High Intensity Interval Exercise On Brain Derived Neurotrophic Factor And Working Memory In Young Adult Females

Presenter and Author;

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ABSTRACT

OBJECTIVES

The objectives of the study were to determine the effect of moderate-intensity exercise (MIE) and high-intensity interval exercise (HIIE) on serum brain-derived neurotrophic factor (BDNF) levels and working memory (WM) in young adult females.

METHODOLOGY

This study was conducted in the Physiology Department, Khyber Girls Medical College Peshawar. Young adult females ($n = 22$), with a mean age of 20 ± 2 years were recruited for two experimental sessions of MIE and HIIE, respectively. Baseline and post exercise blood samples were taken for determination of serum BDNF level and backward digit span test (BDST) for assessment of working memory in both sessions.

RESULTS

Serum BDNF levels pre and post MIE were 707 ± 448 pg/ml and 829 ± 476 pg/ml ($p = 0.006$) respectively while pre and post HIIE were 785 ± 329 pg /ml and 1116 ± 379 pg/ml ($p < 0.001$) respectively. BDST scores were significantly high at post intervention for both MIE ($p = 0.05$) and HIIE ($p = 0.001$).

CONCLUSIONS

Serum BDNF level for MIE and HIIE at post- exercise showed significant increase. In addition, backward digit test scores (BDST) used for assessing WM were significantly high for MIE and HIIE at post-exercise analysis.

KEYWORDS

Brain-derived neurotrophic factor, females, high intensity interval exercise, moderate intensity exercise, working memory.

Frequency Of Commonly Isolated Bacterial Pathogens And Their Antibiotic Sensitivity In Patients Admitted At Gynae C Ward Mti Hayatabad Medical Complex Peshawar

Dr. Samreen

ABSTRACT

OBJECTIVE

To determine the frequency of commonly isolated pathogens and their antibiotics sensitivity in patients admitted at Gynae C ward MTI Hayatabad Medical Complex Peshawar.

BACKGROUND

Bacterial infections are a significant cause of morbidity and mortality in patients. Multidrug resistance (MDR) is a major problem that requires efforts to curb it. The purpose of this study is to evaluate the frequency of commonly isolated pathogens and their antibiotics sensitivity and resistance pattern in patients at Gynae Unit C, Hayatabad Medical Complex Peshawar.

MATERIALS AND METHODOLOGY

A descriptive cross sectional study of bacterial pathogens was carried out on a total 136 patients admitted in Gynae C ward MTI Hayatabad Medical Complex Peshawar with infected wound and sepsis during 1st april 2022 to 30th September 2022 keeping in view the inclusion criteria including all patients admitted with infected wound and sepsis, having age between 18 to 60 years with duration of admission between 48 to 72 hours and exclusion criteria i.e patients with chronic disease such as chronic kidney disease, liver cirrhosis, chronic heart disease, cancer patients confirmed on clinic history and immunocompromised patients confirmed on clinical history.

All bacteria were identified by standard microbiologic methods and processed for susceptibility testing to systemic antimicrobial agents.

RESULTS

In this study total of 5 types of bacterial isolates and 2 *Candida* species were isolated from 136 specimens. The predominant bacteria isolated from specimens were Gram negative *Pseudomonas aeruginosa* (36.76%) followed by *S. Aureus* (35.29%), *E.Coli* (13.23%) *Coliform species* (1.47%), only 4 samples have 2 species isolated from their wounds i.e. *Klebsiella* species and *Candida*. Majority of isolates showed sensitivity for Imipenem and Amikacin and resistance to Co-amoxiclavate and Ceftriaxone. Most of the isolates were resistant to multiple antibiotics.

CONCLUSION

In this study most of the isolated pathogens showed high rate of resistance to multiple commonly used antibiotics. Therefore rational use of antibiotics should be practice.

KEYWORDS: Bacterial isolates, Antimicrobial susceptibility pattern, Drug resistance, wound infection.

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Admission Cardiotocography as a Predictor of Low Apgar Score: An Observational, Cross- Sectional Study

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Abstract

Background and objective

Cardiotocography (CTG) has been used more frequently in recent decades to reduce intrapartum fetal mortality rates. The purpose of this study was to determine whether pathological or non-reactive CTG could predict a low Apgar (Appearance, Pulse, Grimace, Activity, and Respiration) score. An abnormal trace would indicate a distressed fetus, whereas a normal trace would indicate a well-oxygenated fetus.

Materials and Methods

We conducted a cross-sectional, observational study in the Khyber Teaching Hospital (KTH) and Lady Reading Hospital (LRH) in Peshawar, Pakistan from April 1, 2020, to September 30, 2020. These two hospitals are the main tertiary-care centers in the Khyber Pakhtunkhwa state of Pakistan. The study enrolled 470 patients with a gestational period of over 37 weeks. Non-probability consecutive random sampling was used as the sampling method.

The approval from the Ethical Review Committees and informed consent from patients were obtained prior to the commencement of the study. Admission CTGs were carried out in the participants. Patients were categorized into three groups based on the results of their CTGs: (1) patients with reactive CTGs, (2) patients with non-reactive CTGs, and (3) patients with suspicious CTGs, as per the guidelines issued by the National Institute of Clinical Excellence (NICE) [10]. These CTGs varied based on the heart rate pattern and the absence or presence of acceleration, variability, and deceleration. MSL was recorded and graded accordingly. Grade-1 MSL was translucent and light yellow-green in color, grade-2 MSL was opalescent with deep green and light yellow in color, and grade-3 was opaque and deep green in color.

Upon any sign of fetal distress on CTG (i.e., baseline fetal heart rate below 110 or above 160 along with loss of variability or late decelerations), an emergency cesarean section (CS) was performed. After delivery, the newborn's Apgar score was recorded at five minutes in the patient's proforma along with other demographic details.

Results

The study was carried out at two major tertiary-care hospitals in Pakistan. A reactive CTG was found in more than one-third (39.36%) of the 470 patients. An Apgar score above 8 was obtained by 34.26% of the newborns, while an Apgar score below 8 was obtained by more than half (63.40%). Only 2.34% of newborns had an Apgar score below 6. A third (30.64%) of the patients had grade-1 meconium-stained liquor (MSL), 24.89% had grade-2 MSL, 19.79% had grade-3 MSL, and 24.68% had no MSL. One-third (32.34%) of the neonates were admitted to the neonatal intensive care unit (NICU) shortly after birth. When CTG was pathological or non-reactive, the odds of securing a higher Apgar score decreased by 70.45% (OR: 0.30; 95% CI: 0.20-0.44; $p < 0.001$).

Conclusion

The main conclusion drawn from this study's findings is that a pathological CTG is an indicator of a low Apgar score.

Keywords: cardiotocography, ctg, low apgar score, neonatal mortality, electronic fetal monitoring, maternal and fetal medicine, fetal distress

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Maternal Mortality at a Tertiary care Hospital; A 10-Year Review
By Dr. Sadia Habib

ABSTRACT:

Objectives: To determine the burden of maternal deaths and its causes over the last decade at a tertiary care hospital of Pakistan.

Methodology: This retrospective study was done at the Department of Obstetrics & Gynecology, Ayub Teaching Hospital, Abbottabad. Data from July 2010 to June 2020 was reviewed, including demographic information, diagnosis, and causes of maternal deaths.

Results: During the total 10-year duration of study period, a total of 35,660 births were documented, out of which, 32,498 were live births. During the study period, 193 maternal deaths occurred yielding a maternal mortality ratio (MMR) of 594 / 100,000 live births. These 193 cases were further analyzed. Majority of the women were primigravidas 115 (59.6%), non-booked cases 181 (93.8%), illiterate 187 (96.9%) and belonged to poor socioeconomic background 183 (94.8%). Most common cause of maternal mortality was hypertensive disorders 69 (35.7%) while hemorrhage and pulmonary embolism were some of the other most commonly noted causes of maternal mortality observed in 49 (25.4%) and 20 (10.4%) cases respectively.

Conclusion: Poverty, lack of education, living far from hospital facilities and first pregnancy were the major contributors leading to maternal death. As hypertensive disorders and hemorrhage contributes to majority of maternal deaths, regular antenatal booking, identification of high-risk pregnant population and timely referral to well-equipped hospitals need to be emphasized to save precious maternal lives.

Keywords: maternal mortality

Antenatal Counselling Outcomes in Boosting the Uptake of Post Placental Intrauterine Contraceptive Device (PPIUCD) in Post-Partum Women

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ABSTRACT

Objective: To evaluate the outcomes of antenatal counselling in uptake of post placental intrauterine contraceptive device in post-partum women.

Study Design: Prospective study.

Place and Duration of Study: Department of Obstetrics & Gynaecology, Hayatabad Medical Complex, Peshawar from 1st April 2022 to 30th September 2022.

Methodology: Fifty pregnant women were enrolled. The age of the pregnant women was taken within 18-43 years. The couples were counselled for the uptake of PPIUCD through gynaecological professional assistance. The counselling was done at 28 weeks followed by at 36 weeks. The misconceptions and myths were eradicated through the use of one-to-one interview as well as focus group discussions. The fears of the patients and their spouse were addressed through detailed discussion.

Results: The mean age was 24.8 ± 4.06 years. There were 70% of the pregnant women who agreed to get PPIUCD inserted, however only 42% underwent the procedure. Majority of the cases were within the age group of 18-28 years. The reasons recorded for not getting PPIUCD insertion previously presented data where 23% of the pregnant women had no awareness provided about PPIUCD before while 13% preferred other contraceptive methods.

Conclusion: The outcomes of the antenatal counselling are higher uptake of post placental intrauterine contraceptive device with a rate of 42% increase in post-partum women. There is an evident reduction in misconceptions and myths about post-placental intrauterine contraceptive device through antenatal counselling.

Key words: Antenatal counselling, Outcome, Intrauterine contraceptive device, Post-partum

**HOW AND WHY MARTIUS PAD FAT IS USED IN VESICOVAGINAL FISTULAS: AN
INSTITUTION BASED STUDY**

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HOW AND WHY MARTIUS PAD FAT IS USED IN VESICOVAGINAL FISTULAS:AN INSTITUTION BASED STUDY

INTRODUCTION:

Reconstructive surgeries in vagina is unlike other vaginal surgeries due to its different anatomy and changes due to fistula. Urological surgeons collaborate to improve surgical outcomes regarding vesicovaginal fistula. Controversies regarding different interposition flaps still exist. Martius pad fat technique shows promising results in terms of recurrence in patients with obstetric and gynecological fistulas and post-operative hospital stay.

OBJECTIVE

To determine the outcomes of vesicovaginal fistularepair usingmartiuspad fat in terms of fistula recurrence and post-operative hospital stay.

MATERIALS AND METHODS

This study is conducted at Hayatabad Medical complex/ institute of kidney diseases Peshawar from 1stJuly 2012 to 31st august 2022.Fifty seven patients underwent martiuspad fat as interposition flap as an elective procedure.All the patients were evaluated for different outcome variables such recurrence and post-operative hospital stay. Data was entered through SPSS 22 version.

RESULTS

Martiuspad fat is used was used as interposition flap for vesicovaginalfistulas in 57 patients. All fistulas were developed postoperatively after total abdominal hysterectomy(47 cases) and caesarean section(10 cases).vaginal approach was adapted in all the cases. Mean hospital stay was four days(range 3 to 5).Fistula recurred in three patients while no fistula recurrence is noted in remaining 54 patients(94.7%) in a mean follow up of 60 days(range 55 to 120). Twenty five patients had voiding abnormalities post operatively which were improved with anticholinergics.

CONCLUSION

Martius pad fat is an effective tool for reconstruction of obstetric fistulas with less post operative hospital stay and decreased chances of recurrence. More randomized clinical trials are suggested in this area to make this as standardized procedure.

CONTRIBUTORS:

Prof. Mazhar khan created the idea of the project and made initial draft. Dr Riazahmad khan and Drikramullah helped in execution of the plan, and collected data. Dr Muhammad Izhar and Dr fazl-e-Manan helped in interpretation, writing manuscript, statistical analysis and finalizing the final manuscript.

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OUTCOMES OF OLIGOHYDRAMNIOS IN TERM PREGNANCY ENDING IN NORMAL VAGINAL DELIVERY OR C SECTION IRRESPECTIVE OF INDUCTION

Dr. Rabeea Sadaf

ABSTRACT

Objective: To determine the outcome of oligohydramnios in term pregnancy ending in normal vaginal delivery or C Section irrespective of induction.

Study Design: Descriptive Study

Place and Duration of Study: Department of Obs & Gynae, HMC Peshawar from: June-2022 to Dec-2022.

Methodology: A total of 289 pregnant female patients at term (37-42 weeks) presented to the Gynae OPD of our hospital with oligohydramnios (diagnosed clinically having AFI < 5%) were enrolled through non probability consecutive sampling technique. Sample size was calculated taking 75%¹⁰ proportion of meconium-stained liquor cases as an outcome of oligohydramnios, 95% confidence interval and 5% margin of error on WHO sample size calculator. Patients with singleton pregnancy, nulliparity, Bishop score <5, gestational age of 37-42 weeks were included.

Results: Statistically insignificant differences were observed for various outcomes variables in oligohydramnios at term as meconium-stained liquor, Apgar Score < 7 at 1 min, NICU admissions, apgar score < 7 at 5 min with respect to age of patients as p-values of 0.702, 0.489, 0.244, 0.489 and 0.900 were recorded respectively.

Conclusion: This study demonstrated that oligohydramnios at term did not influence the outcomes in nulliparous women with unfavorable cervix.

Keywords: C Section, Induction of Labor, Oligohydramnios, Vaginal Delivery

INTRODUCTION:

Common obstetric interventions include induction of labour (IOL), which is the artificial instigation of labour. Since 1990, the frequency with which labour is artificially induced has roughly doubled. Differences in the guidelines and the lack of consensus on the clinical practise guidelines on IOL contribute significantly to the vast range of IOL rates observed across countries. It is believed that today, in high-income countries, roughly 25% of newborns have IOL. In contrast, low and middle-income countries tend to have lower equivalent rates (LMIC). ^{1,2}

The uterus is made up of two parts, the body and the cervix; the former is made up of smooth muscle, while the latter is made up mostly of collagen. During pregnancy and childbirth, the cervix changes in a variety of ways, including becoming shorter, thinner, and dilating. The cervical modifications necessary for labour can be induced mechanically or pharmaceutically. ^{3,4}

An individual's obstetric and medical history will determine whether a delivery should be performed late in the preterm, early in the term, late in the term, or beyond term. There are circumstances in which it is deemed that inducing labour with an IOL will result in better results for the mother, the baby, or both compared to expectant management, or waiting for labour to begin on its own. Oligohydramnios is one of the more common clinical circumstances, and the ACOG's broad list of delivery timing guidelines includes the range of 36 0/7 to 37 6/7 weeks of gestation for this condition. ^{5,6}

Decreased amniotic fluid volume (AFV) relative to gestational age characterises oligohydramnios. Amniotic fluid volume (AFV) varies throughout pregnancy, growing linearly until 34–36 weeks gestation, when it plateaus at at 400 mL and remains stable until full term. After 40 weeks of pregnancy, the AFV begins a gradual decline that ultimately results in a smaller birth volume in post-term pregnancies. Because of this pattern, AFV can be clinically assessed by measuring fundal height and evaluating the baby using ultrasonography at any point throughout the pregnancy. ^{7,8}

When there is a disparity between the fundal height measurement and the gestational age, it is important to consider amniotic fluid abnormalities as a possible cause. Inconsistencies necessitate an ultrasound examination of the amniotic fluid. ⁹

In one study, as per outcomes for oligohydramnios in term pregnancy, 80% c section, 73.3% low birth weight (< 2.5 kg), 60% NICU admissions, 53.3% Apgar Score at 1 min (<7), 54% Apgar Score at 5 min (< 7), 75% Meconium-stained liquor cases were recorded.¹⁰

The purpose of this study was to determine the outcome of oligohydramnios in term pregnancy ending in normal vaginal delivery or C Section irrespective of induction.

METHODOLOGY:

This was a prospective descriptive study conducted at the Department of Obs & Gynae, _____ from _____ to _____ after taking approval from the Hospital's Ethical Committee (Ref: _____). A total of 289 pregnant female patients at term (37-42 weeks) presented to the Gynae OPD of our hospital with oligohydramnios (diagnosed clinically having AFI < 5%) were enrolled through nonprobability consecutive sampling technique. Written informed consent forms were also obtained from all patients and they were thoroughly briefed about the research purpose of this study. Patients having age between 18 to 35 years with singleton pregnancy, nulliparity, Bishop score <5 and gestational age 37-42 weeks were included. Patients with previous cesarean section, post term pregnancies, previous perinatal loss, recurrent missed abortion, and medical disorders like DM, Hypertension and cardiac disease were excluded. A careful history was taken, and a thorough physical examination was done, and all patients were dealt with as per standard protocol. Outcomes variables were, low birth weight (< 2.5 kg), NICU admissions, Apgar Score at 1 min (<7), Apgar Score at 5 min (< 7) and meconium-stained liquor.

Data was collected and analyzed using the Statistical Package for Social Sciences (SPSS) Version 23.0. Mean and SDs were calculated for numerical variables such as age and gestational age. Frequencies and percentages were calculated for categorical variables such as low birth weight (< 2.5 kg), NICU admissions, Apgar Score at 1 min (<7), Apgar Score at 5 min (< 7) and meconium-stained liquor. Outcomes were cross tabulated with age groups in order to see effect modifiers using chi-square test keeping p value ≤ 0.05 as statistically significant.

RESULTS:

Mean and SDs for age, gestational age was 25.63 ± 3.09 years and 38.71 ± 1.07 weeks respectively, (See Table-I). As per outcomes for oligohydramnios at term, 45 (15.6%) cases of low birth weight, 27 (9.3%) cases of meconium-stained liquor, 166 (57.4%) neonates had

Apgar Score < 7 at 1 min, 27 (9.3%) neonates had NICU admissions while 24 (8.3%) neonates had apgar score < 7 at 5 min. (See Table-2).

Statistically insignificant differences were observed for various outcomes variables for oligohydramnios at term like low birth weight (< 2.5 kg), NICU admissions, Apgar Score at 1 min (<7), Apgar Score at 5 min (< 7) and meconium-stained liquoras p value 0.702, 0.489, 0.244, 0.489 and 0.900 were recorded respectively. (See Table-III)

Table-I: Descriptive Statistics of Study (n=289)

Numerical Variables	Mean	Std. Deviation
Age (Years)	25.63	3.094
Gestational Age (Weeks)	38.71	1.074

Table-II: Frequencies and Percentages for Outcome Variables(n=289)

Outcome Variables	Frequency	Percent
Low Birth Weight (< 2.5kg)	45	15.6%
Meconium-stained liquor	27	9.3%
Apgar Score < 7 at 1 min	166	57.4%
NICU Admissions	27	9.3%
Apgar Score < 7 at 5 min	24	8.3%
Total	289	100.0%

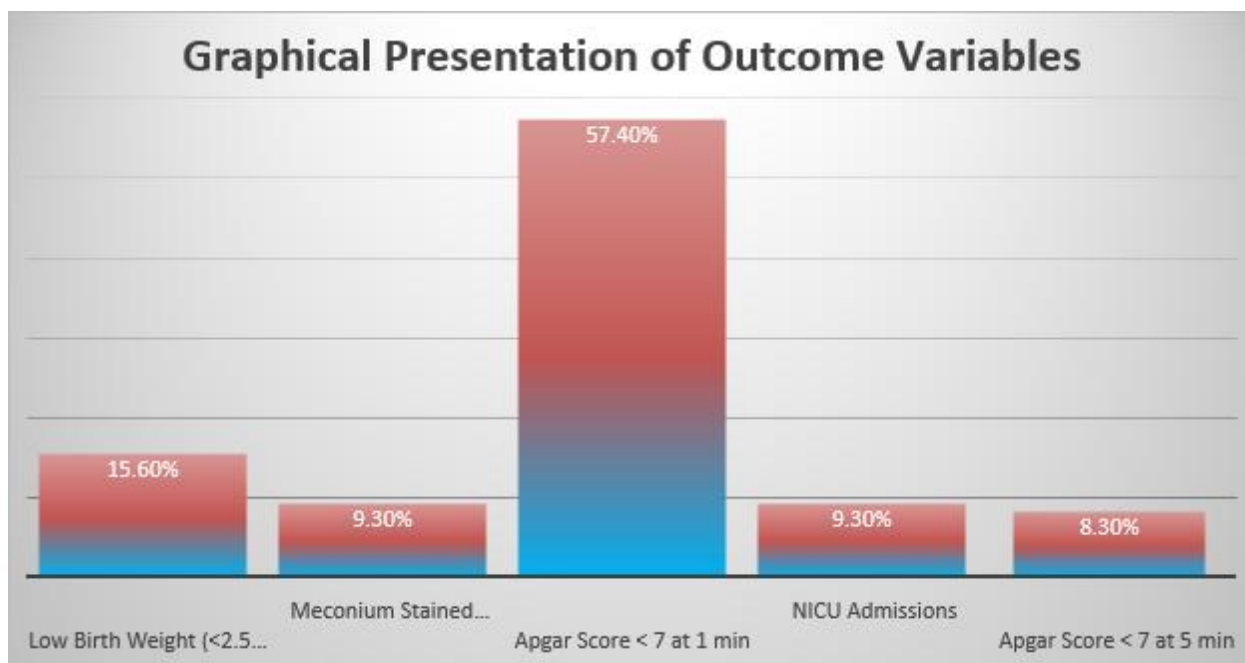


Table-III: Stratification of outcome variables with age groups(n=289)

		Age Groups		Total	P Value
		≤ 25 Years	> 25 Years		
Outcome Variables	Low Birth Weight (< 2.5kg)	25	20	45	0.702
		55.6%	44.4%	100.0%	
	Meconium-stained liquor	16	11	27	0.489
		59.3%	40.7%	100.0%	
	Apgar Score < 7 at 1 min	83	83	166	0.244
		50.0%	50.0%	100.0%	
	NICU Admissions	16	11	27	0.489
		59.3%	40.7%	100.0%	
	Apgar Score < 7 at 5 min	13	11	24	0.900
		54.2%	45.8%	100.0%	
Total		153	136	289	
		52.9%	47.1%	100.0%	

DISCUSSION:

This study was conducted on 289 patients presented with oligohydramnios at term. Although much work has been done in the field of induction of labour in cases of oligohydramnios (AFI <5 cm), but in case of induction in oligohydramnios not much work has been reported especially in our local population. This has added more information to the research. Kwon J-Y et al.¹¹, reported that incidence of oligohydramnios varies from 6%-44% with an average of 12%. According to Gumus II et al.¹², and Banks EH¹³ and Miller DA¹³ the incidence of oligohydramnios varies from 25%-35% with an average of 28%. Mean and SDs for age, gestational age and induction-delivery interval was 25.63 \pm 3.09 years and 38.71 \pm 1.07 weeks, respectively. (See Table-I). As per outcomes for oligohydramnios at terms, 45 (15.6%) cases of low birth weight, 27 (9.3%) cases of meconium-stained liquor, 166 (57.4%) neonates had Apgar Score < 7 at 1 min, 27 (9.3%) neonates had NICU admissions while 24 (8.3%) neonates had apgar score < 7 at 5 min. (See Table-2). Moreover, in this study statistically insignificant differences were observed for various outcomes variables for oligohydramnios at term like low birth weight (< 2.5 kg), NICU admissions, Apgar Score at 1 min (<7), Apgar Score at 5 min (< 7) and meconium-stained liquor as p value 0.702, 0.489, 0.244, 0.489 and 0.900 were recorded respectively. (See Table-III)

Venturini P et al.¹⁴, reported that incidence of Lower Segment Caesarean Section (LSCS) in the low AFI group (38.3%) was not significantly higher than in the control group (34.2%). Martinez Medel J et al.¹⁵, also found in their study that there was no significant difference between mode of delivery and caesarean section indication. Alchalabi HA et al.¹⁶, reported that women in the low AFI group had increased rate of LSCS. Manzanares S et al.¹⁷, found that women in the low AFI group when induced found to have increased incidence of LSCS and instrumental delivery. During labour, non-reassuring Foetal Heart Rate (FHR) pattern was higher in BO group as compared to NL group (46% vs30%), which is statistically

insignificant. According to Manzanares S et al.¹⁷, irregular FHR tracing is found to be significantly higher in the oligohydramnios group when induced. Meconium-stained amniotic fluid was found in more number of case of BO group during intrapartum as compared to NL group (48% vs 30%) which is statistically significant (p-value <0.05). Martinez Medel J et al.¹⁵, reported that, there is no significant difference in the meconium-stained liquor in between low AFI and NL group. In this study, 27 (9.3%) cases of meconium-stained liquor were reported. (See Table-2).

In one study, there was no statistical significant difference between both the groups in terms of APGAR score of the babies at one minute and five minutes (p-value 0.234 and 0.834 respectively) and NICU admission rate (p-value 0.810) and therefore were inconsistent to the findings of this study where statistically insignificant differences were observed for various outcomes variables in oligohydramnios at term as statistically insignificant differences were observed for various outcomes variables for oligohydramnios at term for low birth weight (< 2.5 kg), NICU admissions, Apgar Score at 1 min (<7), Apgar Score at 5 min (< 7) and meconium-stained liquor as p value 0.702, 0.489, 0.244, 0.489 and 0.900 were recorded respectively. (See Table-III)

In literature, different authors reported that there was slight increase in the incidence of low APGAR score in new-borns of mothers with borderline liquor cases in comparison to NL group but it was statistically insignificant. But there was no significant difference in NICU admission in case of induction in low liquor group when compared with those having NL. Venturini P et al.¹⁴, reported that there is no significant difference in the perinatal outcome of induction in nulliparous women with unfavourable cervix with oligohydramnios compared with those having NL and thus these findings were also inconsistent with the results of this study as 166 (57.4%) neonates had Apgar Score < 7 at 1 min and 24 (8.3%) neonates had apgar score < 7 at 5 min. (See Table-2) and both when cross tabulated with respect to age of

the patients yielded insignificant results with p value 0.244 for Apgar score < 7 at 1 min and p value 0.900 for apgar score < 7 at 5 min.

Small sample size and being a single centered study were its main limitation and further research with a larger sample size is needed in this field.

CONCLUSION:

This study demonstrated that oligohydramnios at term did not influence the outcomes in nulliparous women with unfavorable cervix.

Conflict Of Interest: None

Authors Contribution:

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Role Of Pap Smear Test: From Screening To Cure In Tertiary Care Hospital

Romana Bibi

ABSTRACT:

OBJECTIVES:To assess the Pap smear screening method accuracy in detecting precancerous lesions.

MATERIALS AND METHOD:After fulfilling the inclusion criteria patients were selected, patient bladder were emptied and put in dorsal position, Cusco's speculum were introduced after lubrication followed by insertion of Ayer's spatula, applied on the transformational zone and rotated in 360 degree. Specimen smeared on glass slides and sent to the laboratory with fulfilled lab pre-requisite form. Patients were requested to follow up with a histopathology report.

RESULTS:Mean age of patient was 38.111 ± 9.461 years. Among the 77 patients whose samples were taken 15.4% were asymptomatic, 32.1% with vaginal discharge, 17.9% had vaginal discharge, 17.0% had intermenstrual bleeding, and 16.7% were having lower abdominal pain with p-value=0.087. Histopathology reports were interpreted upon follow-up visit among those 1.3% came out to be positive for malignancy, 76.6% negative for malignancy and 22.1% had an inadequate sample.

CONCLUSION:The most common method for screening for cervical cancer is the Pap smear, but its efficacy in detecting early precancerous lesions is very low, possibly due to laboratory error or false technique to a gynecologist of sample technique in our tertiary care hospital. Other screening methods should be used instead of conventional Pap smears.

KEYWORDS:cervical cancer,Pap smear, cervical screening, precancerous lesions

INCLUSION CRITERIA

- Age 18-65 years
- Postmenopausal
- Premenopausal
- Symptomatic uterine fibroid
- Patient not responding to conservative treatment

EXCLUSION CRITERIA

- Patient refusal
- Focal neurological signs and symptoms
- History of diathesis
- Severe coronary artery disease
- Diabetic
- Hypertensive
- Chronic kidney disease

Age of Patients

	N	Minimum	Maximum	Mean	Std. Deviation
Age of patient in years	77	16.00	60.00	38.1169	9.46180
Valid N	77				

Symptoms of patients attending gynecology OPD

		Frequency	Percent	p-value
Valid	Asymptomatic	12	15.4	0.087
	vaginal discharge	25	32.1	
	post coital bleeding	14	17.9	
	intermenstrual bleeding	14	17.0	
	lower abdominal pain	13	16.7	
Total		77	100.0	

PAP Smear report

	Frequenc y	Percent
positive for malignancy	1	1.3
Valid negative for malignancy	59	76.6
inadequate sample	17	22.1
Total	77	100.0

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Safety of Misoprostol in second trimester miscarriages in patients with previous uterine scar

ABSTRACT

Objective: To assess the safety of Misoprostol in mid trimester miscarriages in patients with previous scar.

Methodology: This was a descriptive cross sectional comparative study conducted in Gynae department of Lady Reading Hospital, from January 2021 to December 2021.

Total of 200 patients with second trimester miscarriages were included in the study. Patients having incomplete abortion, gestational trophoblastic disease and more than one scar were excluded from the study. These patients were divided into two groups, 100 patients with no previous scar were put in control group and another 100 patients with previous scar were put in study group. Misoprostol doses were kept vaginally in both groups. The doses were kept according to gestational period of 13 to 24 weeks following the local protocol which was comparable with the FIGO protocol. Full doses of 200 microgram 6hrly were kept from 13 to 17 weeks and doses of 100 microgram 6 hourly were kept from 18 to 24 weeks for 24 hours and half of these amounts were kept in study group with previous scar according to local ward protocol which has also been recommended by FIGO to alter changes according to local protocols as per need for patients in special cases like previous scar. Any patient in which expulsion did not occur second cycle was repeated after 24 hours.

Results:

Total of 200 patients were included in the study and were divided into two groups with 100 patients in each group.

The Demographic features of patients of the two groups, control and study were comparable for maternal Age (26 ± 5.3 Years versus 25 ± 4.9 years with p value of 0.860), Gestational Age in weeks of (18 ± 1.3 weeks versus 17 ± 1.6 weeks with p value of 0.554) Gravidity (4.5 ± 1.6 versus 4.9 ± 1.2 with a p value of 0.844) and of Parity (3.4 ± 1.4 versus 3.6 ± 1.1 with p value of 0.842) which showed no significant difference with respect to age, parity and gestational age.

The time period needed for TOP was 18 hours in control group whereas it was 36 hours in scarred uterus with half doses.

Successful termination was observed in 71% in study group with scarred uterus and 72% in control group.

No major complication of rupture uterus was observed in both groups.

Conclusion: Our study concluded that misoprostol is safe and effective in termination of second trimester miscarriages with scarred uterus.