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Indian Journal of Perinatology and Reproductive Biology

CD 55, Sector I, Salt Lake City, Kolkata 700 064
E-mail: ijoparb1978@gmail.com

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Contents

Editor's Choice

NOVEL CORONA VIRUS (COVID-19)

"Everyone need not wear a mask!" unless you have: (a) symptoms of cough, fever or breathing difficulty(b) you are caring for a COVID – 19 suspect/confirmed patient or (c) you are a health care worker attending to patients with respiratory symptoms (mohfw.gov.in: 17.03.2020)

Novel corona virus (SARS – CA -2) is a new strain of corona virus causing COVID – 19. It was first identified in Wuhan city, China. Other corona virus infections include the common cold

(H CoV 229E, NL 63, OC 43 and HKU1). The virus originated in Hubei province in China where highest number of infected cases are reported. In Europe, Italy is the most affected country. Severity is so, that Italy reported 627 deaths in 24 hours.

NOVEL CORONA VIRUS (COVID-19)
CURRENT STATUS (21.03.2020)

Sl.No.	Countries	Infected	Death
1	China	81250	3253
2	Italy	47021	4032
3	Spain	20410	1043
4	Germany	19711	53
5	Iran	19644	1433
6	US	14631	210
7	France	10891	371
8	South Korea	8652	94
9	Switzerland	4840	54
10	UK	3297	177

Overall:
- Countries Affected=150
- People Infected Globally = 2,65,495 +
- People Died = 11,147 +

Source: John Hopkins University, CDC, WHO

As on 21st March 2020, in India, total number of confirmed cases recorded are 255 and there are 4 deaths reported. The state of Maharashtra is most affected. Till date there is no community transmission of COVID – 19. Based on this,all individuals need not be tested for COVID – 19 (https://www.icmr.nic .in).

Information with the disease and the measures of prevention for general population are mostly known. The awareness as regard to the pregnant women infected with COVID – 19 is less. The reasons are, the available data are limited.[1] There are no reported deaths of pregnant women so far.The readers are warned that information in this presentation may be modified, as more knowledge evolves with time. Most of discussion in this editorial are based on data as available up todate.

COVID – 19 is transmitted from human to human. The spread is rapid through respiratory, fomites or fecal methods. Common symptoms are: cough, fever, shortness of breath. More severe symptoms at times may be: pneumonia, marked hypoxia, especially in elderly women or women having associated co-morbidity (diabetes, chronic lung disease). Possible transmission from mother to baby in one case has been reported.Test report from amniotic fluid, cord blood, neonatal (throat swab) and breast milk samples from COVID – 19 infected mothers was negative.[2] Three placentas of infected mothers were found negative for the virus. There is no evidence of viral transmission through the fluids of the genital tract. Pregnant women are not more susceptible to the infection compared to the general population. No fetal congenital malformation has yet been reported. At present there

is one reported case of a woman with COBID – 19. The woman required mechanical ventilation at 30 weeks of gestation. She was delivered by emergency cesarean section. She recovered uneventfully.[3]

The incubation period of the infection is 0-14 days (mean 4-6 days). In early pregnancy till date there is no evidence of miscarriage or pregnancy loss inwomen, infected with COVID – 19. Case reports of pregnant women infected with SARS and MERS do not support any increased risk of miscarriage or a second trimester loss.[4] Preterm birth (PTB) have been reported in women infected with COVID – 19. It is yet to determine the incidence of spontaneous preterm birth, as iatrogenic PTB is often done due to severity of maternal infections.

Management of a woman with COVID – 19 should be under multi-disciplinary team approach (MDTA) including medical or infectious disease specialist, obstetrician, anesthetist andthe neonatologist. Labor management needs maternal health assessment and fetal surveillance. Besides the routine care, maternal monitoring with temperature, respiratory rate, pulse rate and oxygen saturation (>94%) are essential. Fetal health is assessed with cardiotocographic monitoring.[5] Women with any signs of sepsis, investigations and management are to be organized in consultation with the medical specialist. Mode of delivery is decided on the obstetric observation and should not be influenced by the presence of COVID – 19.[5] Urgent delivery mostly is based on women's health and especially on respiratory condition. There is no contraindication for epidural or spinal anesthesia. There are guidelines for detailsof post-operative theatre cleaning.[6] The number of staff in the operation theatre should be kept to a minimum and all the theatre personnel must use appropriate personal protective equipment (PPE).[7] Radiographic investigations (CT, Chest X-ray) should be performed when needed. Fetus should be protected from radiation hazards as with usual protocol. Cesarean delivery should be performed when indicated based on maternal, fetal and obstetric assessment.

Use of antenatal cortico-steroids for fetal lung maturation is not associated with any harm in the context of COVID–19 infection. Information is limited for postnatal management of babies born to mothers with confirmed COVID-19. All babies born to mothers having suspected or confirmed COVID–19 should undergo test for COVID–19.

In China, it is advised that mother and her baby should be in separate isolation for 14 days. As evidences are limited, most would agree,in situations with otherwise a fit and healthy mother and the baby, should be kept together keeping in mind the potential detrimental effects of such separation.

Breastfeeding: Studies in China revealed, breast milk was negative for COVID–19, in lactating women.[8] Inference is difficult to draw as the case numbers studied are small. Most physicians accept that benefit of breast feeding outweigh any risks of transmission. In sucha situation, maintaining the basic hygiene with repeated hand washing (usingh and rub formulations), and using surgical face musk, would be protective.

Self-isolation of women with possible COVID–19 infection: These include not to go to work, not to use public transport, to stay at home, not to meet visitors, separate room with isolation from other members of the family as far as possible and to use own towels, crockery and utensil. This period is for 14 days.[9] Women with persistent symptoms should undergo laboratory test.Otherwise a healthy asymptomatic pregnant woman without any history of exposure, need no laboratory test. This is with Indian Guidelines (https://www.icmr.nic.in; Nationalhelpline + 99- 11 -23978046).

Prof (Dr) Hiralal Konar
Editor-in-Chief
MBBS (Cal), MD (PGI), DNB, MNAMS, FACS (USA) FRCOG (London)
FOGSI Representative to Asia Oceania Federation of Obstetricians and Gynaecologists (AOFOG, 2018-2019)
Member : Oncology Committee of AOFOG
Chairman, Indian College of Obstetricians and Gynaecologists (ICOG), 2013
Prof. & Head, Dept. OB-Gyn Agartala Govt Medical College and G B Pant Hospital, Tripura

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Original Article - Obstetrics

Thrombocytopenia in Pregnancy – An Audit

Dr Anuradha Dogiparthi,[1] Dr Madhavi Dokku,[2] Dr Vasundhara Kamineni[2]

Abstract

Study Objective: In this retrospective observational study we evaluated the incidence of thrombocytopenia in pregnancy, etiology, maternal and fetal complications in pregnancies complicated by thrombocytopenia

Methods: All pregnant and post-partum women admitted with thrombocytopenia i.e less than 1.5 lakhs/mm^3 are included in the study. Data on pregnancy, etiology and complications retrospectively from case files and computerized database. Maternal and neonatal outcomes are described till hospital discharge.

Results: The incidence of thrombocytopenia in pregnant women in our admissions was 3% (n=48). Hypertensive diseases of pregnancy, Pre-eclampsia, HELLP, Gestational hypertension, Abruptio placenta with or without hypertension and Infections were the main reasons for thrombocytopenia in this study. Need for ICU admission, post-partum hemorrhage, intrauterine death were the important associated complications. Nearly 1/3rd of women required one or more platelet transfusions.

Conclusions: Three percent of pregnant women had thrombocytopenia in our study. Hypertensive diseases of pregnancy and gestational thrombocytopenia were the common etiologies. A significant proportion had either poor maternal or fetal outcomes.

Introduction:

Thrombocytopenia is a common occurrence in pregnancy and is reported to occur in nearly 8 to 10% of pregnancies. Moderate and severe thrombocytopenia contribute to nearly 50% of cases with thrombocytopenia and is often associated with maternal and neonatal complications.[1] Previous population-based studies report gestational thrombocytopenia, hypertensive diseases of pregnancy and immune thrombocytopenia as important causes of thrombocytopenia in pregnant women.[2,3,4] As the incidence and severity of complications in the mother and newborn are related to the associated medical and obstetric conditions, it is important to evaluate the incidence, etiology and materno-fetal complications in at risk pregnant women with thrombocytopenia. In this retrospective observational study we evaluated the incidence of thrombocytopenia in pregnancy,etiology, maternal and fetal complications in pregnancies complicated by thrombocytopenia.

Patients and Methods:

All pregnant and post-partum women with thrombocytopenia i.e less than 1.5 lakhs/ mm^3 admitted to department of Obstetrics and

1. MD, DNB; 2. MD; 3. DGO, DNB; Department of Obstetrics and Gynecology, Kamineni Academy of Medical Sciences and Research Center, LB Nagar, Hyderabad
Corresponding Author: Anuradha Dogiparthi;
Email: dogiparthi_anu@yahoo.com

Gynaecology, Kamineni Hospital, LB Nagar, Hyderabad from July 2017 – June 2018 were included in the study. The study was approved by the institute ethics committee. Records of pregnant women with thrombocytopenia were retrieved and data collected as per the proforma which included history, clinical examination, relevant investigations, details of etiologies like severe preeclampsia, HELLP syndrome, abruptio, gestational thrombocytopenia and medical disorders such as megaloblastic anemia, Isoimmune thrombocytopenia, hemolytic uremic syndrome, systemic lupus erythomatosis and dengue fever. Details of complications like skin/gingival bleeds,haematuria,systemic bleeds, postpartum hemorrhage and details of maternal and fetal outcomes like need for ICU stay, duration of ICU stay, need for inotropes,platelets and blood product transfusions in the mother, neonatal details like gestation at birth,APGAR scores,need for NICU admission,major bleeds in newborn were also collected. All patients were managed by a multidisciplinary team of obstetrician, anesthetist,physician, critical care specialist and hematologist and as per the existing unit protocols. The study concluded with discharge or death of the patient. The incidence, etiology, complications, maternal and fetal outcomes are the main outcomes of this study. Only descriptive statistics are used in this study. No apriori sample size was estimated for this study.

Results:

During the study periodfrom June 2017 to June 2018 ,1602 pregnant women got admitted to the department. The incidence of thrombocytopenia in pregnant women in our admissions was 3% (n=48). The mean maternal age and the mean gestational age at presentation was 25 ± 3.6 years and 32.4 ± 6 weeks respectively. 17 (35%) women were primigravida. Among the study participants, one woman had minor bleeds (petechia and or gingival bleeds) at admission. In decreasing order, the etiology of thrombocytopenia in pregnancy was hypertensive diseases of pregnancy (n=20, Pre-eclampsia, HELLP), Gestational hypertension (n=10), Abruptio placenta with or without hypertension (n=7), Infections (n=4, Dengue or sepsis), Iso-immune thrombocytopenia (n=3), megaloblastic anemia (n=3), SLE (n=1), APLA (n=1), portal hypertension (n=1), chronic Kidney disease (n=1), cerebral venous thrombosis (n=1) and post-partum hemorrhage (n=1). The major complications such as postpartum hemorrhage, disseminated intravascular coagulation and ICU admission was in 3, 3 and 8 women respectively. Seventeen (35.4%) women required one or more platelet transfusion and 16 women also required blood transfusion. Most of the women required only one platelet transfusion but one woman each required a maximum of 5, 7 and 16 transfusions respectively. The mean gestational age at delivery was 33.5 ± 5.7 weeks and the mode of delivery was C-section in 21 (44%) women. Regional anesthesia was given in 17 women where mode of delivery was by C-section (81%). Twenty infants (42%) required NICU admissions. Two women (4%) died during the hospital stay, and 12 women (25%) had Intrauterine deaths or an abortion and post-partum hemorrhage was seen in 2 women. The mean lowest platelets were 68294 ± 33181/mm^3, 8 and 16 women had a lowest platelet count less than 30,000 and 50000/mm^3 respectively. The average time for rise of platelets was <72 hours in most of the women (n=40).

Discussion:

Thrombocytopenia, a common finding in women with pregnancy, is often associated with significant maternal and neonatal complications. Severe thrombocytopenia, etiology and associatedmaternal medical and obstetric disorders contribute significantly to maternal and neonatal complications. In a large population-based study, mean platelet counts decreased during pregnancy in all the women, beginning in the first trimester. Platelet counts of less than 150,000 per cubic ml at the time of delivery were more common among women who had pregnancy-related complications than among women who had uncomplicated pregnancies (11.9% vs. 9.9%, P=0.01). In women who have a platelet count of less than 100,000 per cubic ml, a cause other than pregnancy or its complications was always present. In this study, 2.3% of women with pregnancy related complications had a platelet count less than 1,00,000/mm^3 and 1.2% of them had platelet counts less than 80,000/mm^3.[2] In another large study that evaluated 6715 pregnancies over a period of 3 years, the incidence of thrombocytopenia in pregnancy was 7.6%.[4] In an Indian Study that enrolled all pregnant women, the incidence of thrombocytopenia in pregnancy was 8.8%.[5] We included only pregnant mothers admitted

with thrombocytopenia in our study and hence the reduced incidence of thrombocytopenia in our study. This incidence is very similar that reported by Reese et al, 2018 in pregnant with pregnancy related complication and with platetet count <1,00,000/ mm^3.[2]

Gestational thrombocytopenia and hypertensive disorders of pregnancy are the common reasons for moderate to severe thrombocytopenia in our study and also in all other studies from India.[5,6] However as gestational thrombocytopenia is mild and does not necessitate admission in many cases, hypertensive diseases of pregnancy was the commonest reason for thrombocytopenia in our study. Infections and Vitamin B12 deficiency are problems peculiar to developing countries and contribute significantly to the cause of thrombocytopenia in pregnancy women and in all adult patients. Most studies report gestational thrombocytopenia and hypertensive diseases as the most important causes of thrombocytopenia in pregnancy. The proportion of women with severe thrombocytopenia is our study was 33%, and this is more than that reported from other studies that evaluated all women with pregnancies.[5,6,7,8]

The incidence of maternal and fetal/neonatal complications is very high in our study compared to all other studies. In an Indian study in pregnant women with thrombocytopenia preterm delivery was seen in 31.8% and PPH was observed in 9.9%. Platelet counts improved by 2 weeks in most patients in their study.[5] Inclusion of only women with maternal complications and those requiring admission, severity of thrombocytopenia and different etiological basis may be the reasons for this high fetal and maternal complications in our study.

Conclusion:

Three percent of pregnant women had thrombocytopenia in our study. Hypertensive diseases of pregnancy and gestational thrombocytopenia were the common etiologies. A significant proportion of pregnant women who had thrombocytopenia at admission had either poor maternal or fetal outcomes.

Conflict of Interest:

None

Funding:

None

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Original Article - Obstetrics

Interventions for expediting second trimester pregnancy termination

Dr Anjoo Agarwal,[1] Dr Rashmi Pandey,[2] Dr Vinita Das,[3] Dr Amita Pandey,[4] Dr Renu Singh,[5] Dr Smriti Agrawal,[6] Dr Mona Asnani[7]

Abstract

Purpose: To compare the efficacy of misoprostol tablets in inducing second trimester abortion when moistened with acetic acid or with normal saline prior to vaginal insertion.

Material & Methods: The study was conducted in Department of Obstetrics and Gynecology, King George Medical University, Lucknow, India. All women desiring second trimester pregnancy termination from 14 to 20 weeks of gestation were enrolled. All women were induced with misoprostol 400 mcg given 4 hourly upto a maximum of 2000 mcg. Alternate women were assigned to group A and B. In group A the tablets were moistened with 3 ml of 5% acetic acid and in group B they were moistened with 3ml normal Saline. Both groups were compared in relation to induction abortion interval, total dose of misoprostol required, and occurrence of side effects.

Results: There were 50 cases in each group. Mean induction abortion interval was 12.34±4.19 hours in Group A and 16.30± 6.17 hours in Group B, the difference being statistically significant (p<.0.001). The number of doses required were also significantly less in Group A as compared to group B (p=0.003). There were minimal side effects and were comparable in the two groups.

Conclusion: The simple intervention of moistening misoprostol tablets with 5% acetic acid is useful in expediting second trimester termination of pregnancy.

Key Words: second trimester termination of pregnancy, misoprostol

1. Professor, Department of Obstetrics and Gynaecology, King George Medical University, Lucknow, India
2. Resident, Department of Obstetrics and Gynaecology, King George Medical University, Lucknow, India
3. Professor & Head, Department of Obstetrics and Gynaecology, King George Medical University, Lucknow, India
4. Professor, Department of Obstetrics and Gynaecology, King George Medical University, Lucknow, India
5. Professor, Department of Obstetrics and Gynaecology, King George Medical University, Lucknow, India
6. Associate Professor, Department of Obstetrics and Gynaecology, King George Medical University, Lucknow, India
7. Asstt Professor, Department of Obstetrics and Gynaecology, King George Medical University, Lucknow, India

Corresponding Address: anjooa@gmail.com

Introduction

Second trimester pregnancy termination has always been a challenge for the gynaecologist and the woman undergoing the termination. It is associated with a sharp rise in the rate of complications and consequent medical costs[1] as compared to first trimester terminations.Various methods have been used ranging from dilatation and evacuation, oxytocin infusion, intra and extra amniotic instillations but the advent of misoprostol has revolutionized the second trimester termination making it less invasive and cheaper. The sometimes prolonged induction abortion interval with misoprostol is frustrating for doctor and subject alike. So the present study was planned to investigate the usefulness of a simple intervention of moistening the tablet of misoprostol with acetic acid prior to vaginal insertion to improve its efficacy.

Methods

The study was conducted in Department of Obstetrics and Gynaecology, of a tertiary care teaching Hospital of North India. All women seeking and eligible for second trimester pregnancy termination (i.e. between 14 and 20 weeks which is upper limit of legal termination in India) were enrolled after taking informed consent (Table-1). Women having active vaginal bleeding, active vaginal infection, ruptured membranes or allergy to prostaglandins were excluded. A total of 100 cases were enrolled over a period of one year. They were divided into two groups taking alternate cases in each group. So each group had 50 cases. All cases underwent complete general examination and blood investigations (haemoglobin and blood group).

Group A was given 400mcg misoprostol moistened with 3ml of 5% acetic acid inserted in posterior vaginal fornix every 4 hours upto a maximum of 5 doses i.e. 2000mcg

Group B was given 400mcg misoprostol moistened with 3ml of normal saline inserted in posterior vaginal fornix every 4 hours upto a maximum of 5 doses i.e. 2000mcg

All women were monitored 4 hourly for any side effects of misoprostol like nausea, vomiting, diarrhea. They were also monitored for vitals and response to induction. Completeness of abortion was confirmed by transvaginal sonography in all cases.

There was no change in the dose in cases of previous one or two lower segment caesarean section.

Results

Table 1 shows the demographic profile of the cases. The women in both groups were comparable in relation to age, parity and gestation.

Table-1: Demographic Profile of Cases

	Group A	Group B	p Value
Mean age	29.30 ± 3.58	29.42 ± 4.56	0.765
Parity Primigravida	3	4	0.815
Para 1 – 3	33	32	
Para ≥ 4	14	14	
Mean Gestation	16.98 ± 2.37	16.54 ± 2.31	0.282

All women successfully aborted. There was no case which required any other intervention. Table-2 shows the number of doses of misoprostol needed for complete abortion. The mean number of doses required in Group A were significantly less than in Group B (3.20+/-0.93 vs 3.80+/-1.05 p= 0.003).

Table-2: Distribution of Subjects according to Dose Requirement

No. of Doses required for complete abortion	Group A (n=50)		Group B (n=50)	
	No.	%	No.	%
1	1	2	1	2
2	8	16	5	10
3	27	54	12	24
4	8	16	17	34
5	6	12	15	30
Mean Dose ± SD	3.20±0.93		3.80±1.05	

t=3.031; p=0.003

In keeping with the reduced dose required in Group A, the induction abortion interval was also significantly less in Group A as shown in Table-3 (12.34+/-4.19hours vs 16.30+/-6.17 hours, p<0.001).

Table-3: Distribution of Subjects according to Induction – Abortion Interval (hrs)

Induction-Abortion Interval	Group A (n=50)		Group B (n=50)	
	No.	%	No.	%
<=12 hrs	32	64.0	12	24.0
12-18 hrs	14	28.0	25	50.0
18-24 hrs	3	6.0	8	16.0
>24	1	2.0	5	10.0
Mean interval ± SD	12.34±4.19		16.30±6.17	

t=3.754; p<0.001

There was no significant difference in the occurrence of side effects between the two groups (p=0.338).

Discussion

Misoprostol has been used in varying doses but it has been seen that there is a need to balance side effects and efficacy. Higher doses are associated with more side effects but too low a dose is associated with prolonged induction abortion intervals. Koh et al[2] compared different regimens and found 400mcg misoprostol given 4 hourly to be most effective. The need to reduce the dose and induction abortion interval without increasing side effects is ongoing.

Mishell et al[3] have shown that misoprostol tablets moistened with saline are more effective in inducing pregnancy termination then un-moistened tablets. Misoprostol tablets have been shown to liquefy better in an acidic medium.[4] Therefore this study was planned to evaluate the efficacy of acetic acid moistened tablets of misoprostol. Bulent Yilmaz et al[5] used acetic acid moistened misoprostol tablets in dose of 800mcg 6 hourly, maximum 3 doses, and found it to be effective but the side effects observed were more as compared to present study (92.4% vs 24%) probably due to higher one time dose. The present study also found a shorter induction abortion interval when misoprostol tablets are moistened with acetic acid.

Conclusion

The present study supports moistening of misoprostol tablets with 3% acetic acid prior to vaginal insertion, for improving its efficacy in inducing second trimester pregnancy termination.This is a simple intervention which can significantly reduce the induction abortion interval without increasing side effects.

Disclosure Statement

"Conflict of Interest: None"

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Original Article - Gynecology

A Study Emphasizing Role of Diagnostic Hysterolaparoscopy in Comprehensive Evaluation of Infertility - Proven to be a Milestone!

Dr. Surendra,[1] Dr. Vinu Choudhary[2]

Abstract

Introduction: Hysterolaparoscopy provides a comprehensive investigative procedure in which various factors causing female infertility can be assessed at one sitting.The question of tubal morphology and patency, ovarian morphology, any unsuspected pelvic pathology, and uterine cavity abnormalities can all be resolved with accuracy and specificity in same sitting.

Methodology: Patients between >= 21 yrs of age with either primary or secondary infertility of more than 1 year duration were included in the study. A total of 100 patients were enrolled for the study in a time period of one year (June 2017 to May 2018).

Results: A total of 100 infertility patients were enrolled in the study. In the present study, the incidence of primary infertility was 70% and that of secondary infertility was 30%. Laparoscopic findings showed that uterine factors were responsible for infertility in 12 cases i.e. 8 cases of primary infertility and 4 cases of secondary infertility. Incidence of intrauterine adhesions was 4%. Sub mucus fibroid was seen in 2 cases (2%). Ovarian factors were implicated in 16% of the cases.Peritoneal factors were detected in 20% of cases. Pelvic pathology was detected in 86.0% of the cases. Unexplained infertility accounted for 16.0% of the women undergoing laparoscopic evaluation in the present study.

Conclusion: Hysterolaparoscopy is a feasible and acceptable procedure. It can be used as "Comprehensive Approach" in the evaluation of female infertility. It shortens the duration of investigation of infertile couple.

Keywords: Hyterolaparoscopy, primary infertility, secondary infertility, uterine, tubal, ovarian, peritoneal factor.

1. III Year Resident Doctor, Dept. of Obstetrics & Gynaecology, S.P. Medical College, Bikaner, Rajasthan.
2. Assistant Professor, Dept. of Obstetrics & Gynaecology, Pandit Deendayal Upadhyaya Medical College, Churu, Rajasthan.
Corresponding author: vinuc16@gmail.com

Introduction

Infertility affects about 10-15% of reproductive age couples.[1,2] The diagnosis and treatment of this disorder stands out as one of the most rapidly evolving and challenging area in medicine.The ability to see and manipulate the uterus, fallopian tubes, and ovaries during laparoscopy has made it an integral part of infertility evaluation. Similarly, visualising the uterine cavity and identifying the possible pathology has made hysteroscopy an equally important tool in infertility evaluation.[4,5] Laparoscopy often brings to light unexpected pelvic pathology. Early and subtle causes of infertility thus revealed and treated lead to rewarding results. Hysterolaparoscopy thus provides a comprehensive investigative procedure in which various factors causing female infertility can be assessed at one sitting.The question of tubal morphology and patency, ovarian morphology, any unsuspected pelvic pathology, and uterine cavity abnormalities can all be resolved with accuracy and specificity in same sitting.[6,7,8]

Methodology

Patients between >= 21 yrs of age with either primary or secondary infertility of more than 1 year duration were included in the study. A total of 100 patients were enrolled for the study in a time period of one year (June 2017 to May 2018) in Dept. of Obstetrics and Gynaecology at a tertiary care centre.

Primary infertility patients were those who had never conceived before, while secondary infertile patients had at least one prior conception, irrespective of the outcome. Hormonal abnormalities known to cause anovulation like thyroid dysfunction, hyperprolactinemia, and polycystic ovarian syndrome were excluded. Statistical analysis was done using SPSS software version. P valie<0.05 was considered as significant.

Results

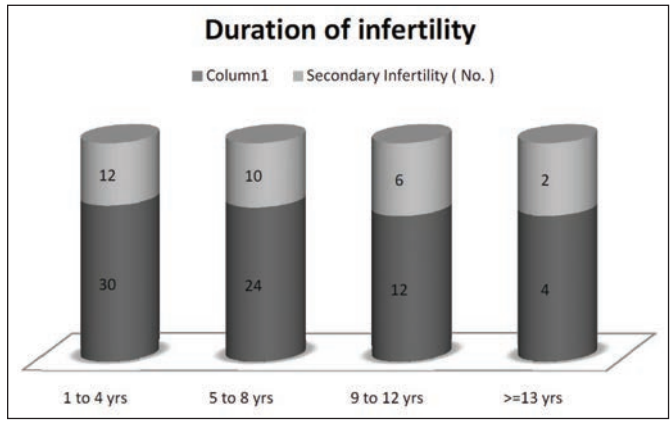

Figure 1. Distribution of cases depending on duration of infertility.

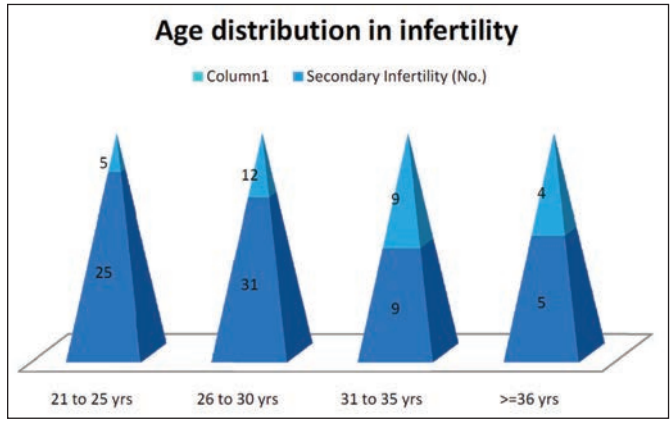

Figure 2. Distribution of cases based on age group of patients.

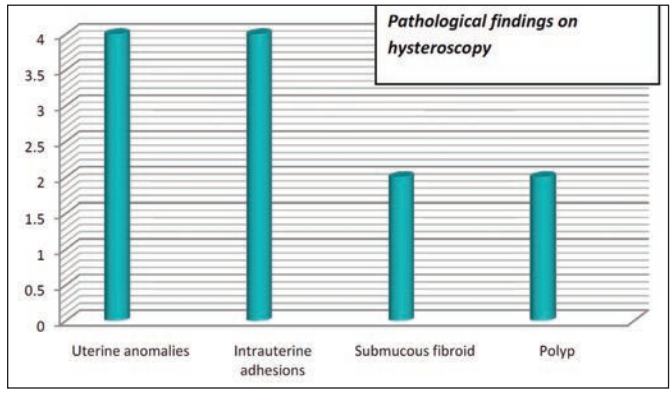

Figure 3. Distribution of cases based on pathological findings diagnosed on hysteroscopy.

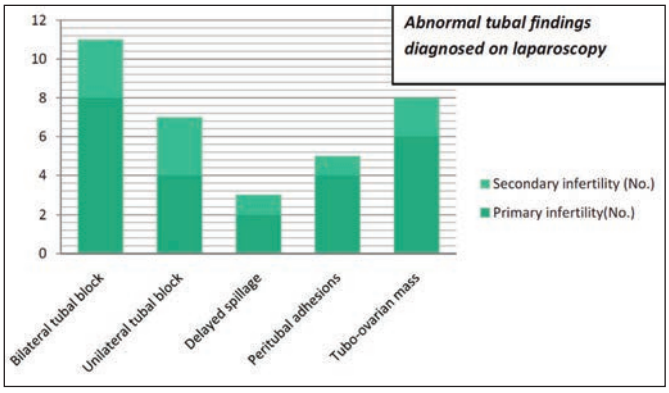

Figure 4.Case distribution with respect to abnormal findings on laparoscopy.

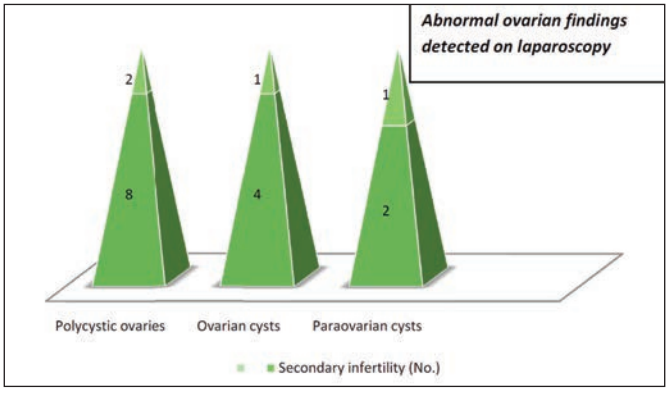

Figure 5. Distribution of cases depending on abnormal ovarian findings on laparoscopy.

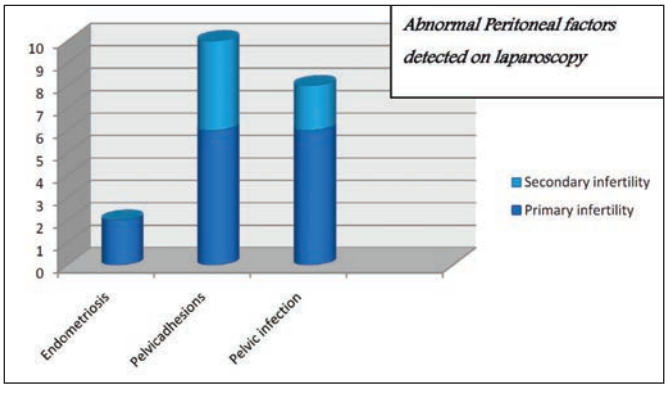

Figure 6.Distribution of cases depending on abnormal peritoneal factors on laparoscopy.

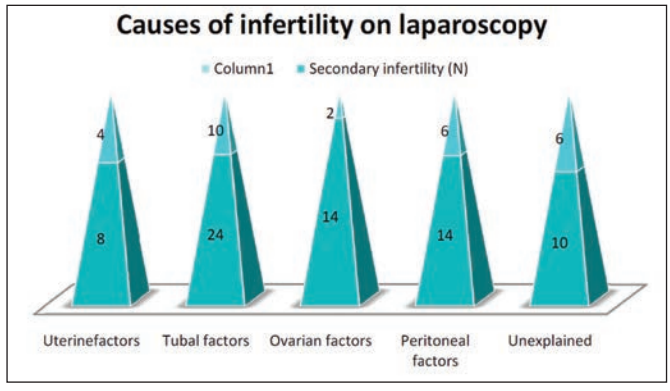

Figure 7. Distribution of cases depending on infertility causes diagnosed on laparoscopy.

Results & Discussion

A total of 100 infertility patients were enrolled in the study. In the present study, the incidence of primary infertility was 70% and that of secondary infertility was 30% which correlates with the studies conducted by Sharma R et al[11]– primary infertility (67.2%) and secondary infertility (32.8%), Nakade KD et al[12] - primary infertility (69.4%) and secondary infertility (30.6%). Amongst the 30 patients of secondary infertility, the pregnancy immediately preceding the period of infertility was abortion (spontaneous or induced) in 51% of the cases, and in a full term normal delivery and caesarean delivery in 24% and 25% of the cases respectively.In a another study conducted by Sharma R et al,[11] the pregnancy preceding the period of infertility was term delivery in 32.4%, with previous preterm delivery in 8.1%, intrauterine foetal death in 8.1%.

Uterine anomalies included 2 cases of septate uterus, 1 case of subseptate uterus and 1 case of bicornuate uterus. All the 4 cases of intrauterine adhesions were of secondary infertility resulting from prior D& C following spontaneous and induced abortion. In the present study laparoscopic findings showed that uterine factors were responsible for infertility in 12 cases i.e. 8 cases of primary infertility and 4 cases of secondary infertility.

As apposed to our study in which incidence of intrauterine adhesions is 4% while it was found to be 25% (Malhotra N et al[13]), 23.4% (Keminiski P et al[14]). In 2 cases the adhesions were quite fragile and flimsy and in remaining cases dense ahesions were present. Sub mucus fibroid was seen in 2 cases (2%) while it was found to be 9.4% (Malhotra

N et al[13]) and 14.3% (Keminski P et al[14]). In the present study, uterine factors were responsible for infertility in 12 cases which is comparable to 12% in studies conducted Nakade KD et al[12] and 14% in Chakraborti et al.[15] In the present study tubal factors were found responsible for the majority of cases – 34%. These result are comparable with those of Chakraborti et al (39.0%).[15] This finding indicates that tubal dysfunction continues to be a major determinant of female infertility.Chromopertubation test using methylene blue dye, to assess the patency of the fallopian tubes, was done in all 100 cases of the present study .

In the present study, ovarian factors were implicated in 16% of the cases as apposed to a study by Bhide AG et al[9] (9.7%) showing lower incidence. Of the mentioned 2 cases of ovarian cysts, 3 case of serous cystadenoma and 2 cases of chocolate cyst of the ovary (endometriosis) was detected. All ovarian cysts were unilateral.

Peritoneal factors were detected in 20% of cases, which is comparatively higher than the result of studies by Bhide AG et al[9] (10.9%). Pelvic endometriosis was detected in 2 case (2.86%) of primary infertility. As already mentioned before, endometriosis in the form of chocolate cyst of the ovary was seen in 2 cases., the overall incidence of endometriosis was found to be 4% of all the infertility cases studied. In many cases, there were more than one factors involved. The most severe, important and significant one was considered.

Pelvic pathology was detected in 86.0% of the cases under study. In contrast Jayakrishnan et al.[3] from India detected pelvic pathology in 26.8% cases of infertile patients by laparoscopic evaluation.

Unexplained infertility accounted for 16.0% of the women undergoing laparoscopic evaluation in the present study. The incidence of unexplained infertility obtained by the present series is in accordance with the studies by Chakraborti et al[15] (21.4%).

Conclusion

Hysterolaparoscopy is a feasible and acceptable procedure. It can be used as "Comprehensive Approach" in the evaluation of female infertility. It may be considered essential in all cases of infertility. It shortens the duration of investigation of infertile couple thereby relieving the anxiety of those who are found normal and enables early treatment of those who are suffering from treatable cause of infertility. Diagnostic hysterolaparoscopy is an effective and safe tool in comprehensive evaluation of infertility, particularly for detecting peritoneal endometriosis, adnexal adhesions, and septum in the uterus. These are correctable abnormalities that are unfortunately missed by routine pelvic examination and usual imaging procedures. When performed by experienced hands and with proper selection of patients, hysterolaparoscopy can be considered as a definitive investigative daycare procedure for evaluation of female infertility. This helps in formulating specific plan of management.

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Case Report - Obstetrics

Complete Hydatidiform Mole with Coexisting Foetus in A Case of Bicornuate Uterus — A Rare Presentation

Debasmita Bhadra,[1] Palash Mazumder,[2] Somajita Chakraborty,[3] Parnamita Bhattacharya[4]

Abstract

Hydatidiform mole with coexisting live foetus in a bicornuate uterus is a rare occurance. Clinical information is limited and optimal management is yet unknown. Here we present a case of 25 year old female with complete mole with coexisting foetus in a bicornuate uterus leading to viable pregnancy outcome.

Introduction

Molar pregnancy constitutes a benign spectrum of gestational trophoblastic disease (GTD).[1] Hydatidiform mole is an abnormal condition of the placenta where there is partly degenerative and partly proliferative change in the young chorionic villi. Complete moles are diploid with 46XX karyotype (paternal origin) whereas in partial mole karyotype is triploid, either 69XXY or 69XYY. Molar pregnancy is associated with various complications like haemorrhage , shock, sepsis ,perforation of uterus, pre eclampsia, coagulation failure, thyroid abnormalities and development of persistent trophoblastic disease. Twin pregnancy with a complete hydatidiform mole and a normal fetus is extremely rare, with an estimated incidence of one in 22,000–100,000 pregnancies.[2] Several studies have found that clinical complications of molar pregnancy are more frequent in twin pregnancy with a hydatidiform mole and a coexisting live fetus, even leading to near miss cases.[3,4]

Case Report

A 25 year old primigravida presented at Gynae Emergency of Medical College, Kolkata on 3/06/2017 with preterm premature rupture of membrane at 32 weeks 5 days gestation (LMP – 17.10.2016). Patient was married for 4 years and was undergoing treatment for primary infertility. She had ovulation induction with clomiphane citrate. She had regular menstrual cycle with normal flow and without any significant pain. A 2D ultrasound of pelvis (12.11.2014) showed bicornuate uterus (Fig 1). Hysterosalpingography (14.02.2015) showed tubular uterus extending to left side and spillage present on the same side.

Throughout the pregnancy she had regular antenatal check up under private set up. Her laboratory investigations were within normal limits and thyroid profile was also normal.

1. Dr. Debasmita Bhadra, Junior Resident, Dept of Gynaecology and Obstetrics, Medical College, Kolkata
2. Dr. Palash Mazumder, Assistant Professor, Dept of Gynaecology and Obstetrics, Medical College, Kolkata
3. Dr. Somajita Chakraborty, Professor, Dept of Gynaecology and Obstetrics, Medical College, Kolkata
4. Dr. Parnamita Bhattacharya, Assistant Professor, Dept of Gynaecology and Obstetrics, Medical College, Kolkata

Corresponding author email: parnamita_bhattacharya@yahoo.co.in

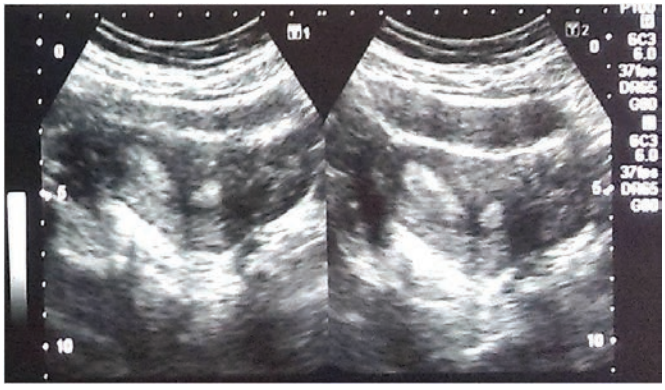

Fig 1: pelvic USG revealed echogenic endometrium in the region of body of uterus bifurcating into two horns with intervening tissue of normal myometrium.

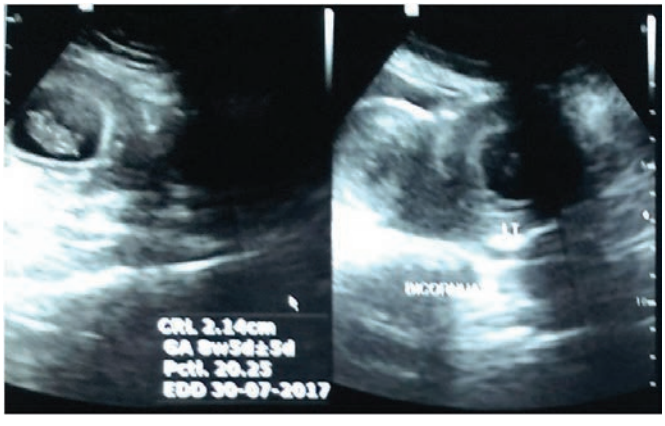

Fig 2: single gestational sac of gestational age 8 weeks 5 days with a fetal pole and cardiac activity was present within the left horn of bicornuate uterus.

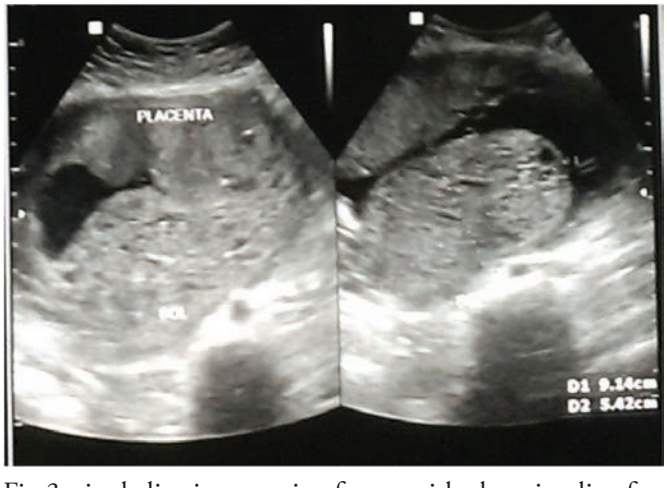

Fig 3: single live intrauterine foetus with changing lie of 23 weeks 3days maturity, placenta on anterior wall and one well defined discoid echogenic lesion (9.1× 5.4 cm) with multiple small cystic areas within at posterior and lateral uterine wall without any intra-lesional vascularity suggestive of mesenchymal dysplasia.

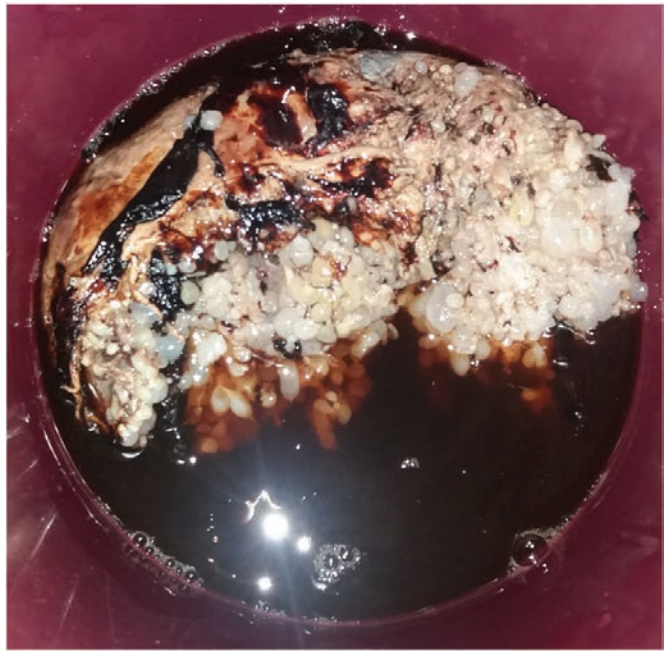

Fig 4: placenta along with vesicular mass

First trimester ultrasound showed bicornuate uterus with a gestational sac in left cornu of 8weeks 5days fetal maturity (Fig 2).

Repeat ultrasound (27.01.2017) at 14 weeks showed single live intrauterine foetus of 14 weeks 2 days maturity, placenta at anterior uterine wall with small retroplacental haemorrhage Anomaly scan (26.03.2017) at 18 weeks 6days of gestational age, showed single live intrauterine fetus with changing lie of 23 weeks 3days maturity, placenta on anterior wall and one well defined discoid echogenic vesicular space occupying lesion (9.1× 5.4 cm) at posterior and lateral uterine wall without any intra-lesional vascularity suggestive of mesenchymal dysplasia (Fig 3).

Ultrasound (8.04.2017) at 20 weeks 5 days gestational age showed single live intrauterine foetus of 24 weeks 5 days maturity with fundo-anteriorly located placenta and small cystic area in posterior wall of uterus suggestive of mesenchymal dysplasia.

On admission patient was normotensive with tachycardia and bilateral pedal oedema. On abdominal examination, uterus was term size, foetal heart sound was140/min and regular. On vaginal examination, os was 2 cm dilated with 50% effacement, membranes ruptured with active dribbling. She went into labour and delivered vaginally a baby girl of 1.45 kg weight on 4.06.2017, 8 hours after admission. Baby poorly cried at birth and her apgar score was 6 and 8 at 1 and

5 minutes respectively. Baby was resuscitated and sent to SNCU for further management.

After delivery of the foetus a mass with numerous vesicles was expelled followed by expulsion of cord and placenta with few vesicles (Fig 4). Placental tissue and vesicular mass was sent for histopathological examination which confirmed the vesicular mass to be a complete mole and the placenta to be a normal one.

The baby was admitted in SNCU with very low birth weight, prematurity and later developed neonatal sepsis, which was treated with antibiotics (meropenem, piperacillin, amikacin). Baby's blood culture showed growth of Klebsiella. Baby's blood group was A positive. The neonate developed jaundice and was given phototherapy. Chest x-ray and ultrasound of brain were normal. Baby was discharged in a stable condition on day 22. Karyotyping of the baby showed normal female genotype (46XX).

Mother's postnatal period was uneventful. She had serial serum beta human chorionic gonadotropin (Beta HCG) monitoring which is showed declining trend without any cytotoxic therapy.

Beta HCG levels :
4.06.2017 - > 1365 mIU/ml
7.06.2017- 7571 mIU/ml
9.06.2017- 1357 mIU/ml
22.06.2017-413 mIU/ml
12.07.2017-456 mIU/ml
28.07.2017-169 mIU/ml
11.08.2017- 24.3 mIU/ml
25.08.2017- 8.0 mIU/ml

Patient is still under regular follow up and serial beta HCG monitoring.

Discussion

Approximately 200 cases of complete mole with coexistent foetus have been mentioned in literature and Only 56 documented cases resulted in live birth.[5] The diagnosis of twin pregnancy with a complete mole and normal fetus is clinically challenging. This condition has to be differentiated from partial mole and placental mesenchymal dysplasia.[6] In case of partial mole the pregnancy needs to be terminated, whereas in placental mesenchymal dysplasia the pregnancy can be continued. Ultra-sonographic diagnosis of a twin pregnancy with a hydatidiform mole and a coexisting live fetus is possible at the end of the first trimester.[7] MRI is essential to differentiate a twin pregnancy with a hydatidiform mole and a coexisting live fetus from a placental mesenchymal dysplasia, because the perinatal prognosis is favorable in the latter.[8] However in this case we did not get a chance to do a MRI as patient presented in labour.

There is high possibility of maternal complications associated with molar pregnancy such as early-onset pre eclampsia, hyperemesis gravidarum, hyperthyroidism, vaginal bleeding, anemia, development of theca lutein ovarian cysts, trophoblastic embolization to the lungs, and Persistent trophoblastic disease (PTD), foetal growth restriction, intra uterine foetal death. There is controversy regarding chances of developing PTD in cases of complete mole with coexistant fetus in comparison to singleton pregnancy. The risk of developing GTD varies between 5% to 33%, and is not increased significantly by continuation of pregnancy or reaching an advanced gestational age.[9] A recent study on the predictors of fetal survival found that, hCG levels up to 400,000 IU/L are the best indicators for a favorable perinatal outcome.[10]

In this case twin pregnancy with a complete mole and a normal foetus occurred in a bicornuate uterus. There is only one reported case of complete mole with coexistant fetus in bicornuate uterus in 2016 who had to undergo suction and evacuation at 13weeks of gestational age due to uncontrolled vaginal bleeding.[11]

Additional Information:

Authors have no conflict of interest

Conclusion

There are two strategies to deal with complete mole with coexistant fetus, either to terminate the pregnancy in case of maternal complication, or comprehensive prenatal care in a referral centre.

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In Memorium

Khitindra Mohan Gun (1926-2019)

Kshitrindra Mohan Gun was born on first of November in 1926 in Barhatta of Mymensingh District, now in Bangladesh. He was a brilliant scholar since the beginning as astudent. He stood 4th in I Sc Examination and 1st in final MBBS examination from Calcutta Medical College, University of Calcutta. He was the Resident Surgeon in Eden Hospital, Calcutta (Calcutta Medical College). He went to England in August 1960 and passed FRCS and MRCOG before returning to Kolkata in April 1963. He became the fellow of the Royal College (FRCOG) later on and held many distinguished positions in various Medical institutions and Organisations.

On return from England, he joined the state health service and worked as a specialist Gynecologist in Jalpaiguri district in Northern part of Bengal. Subsequently he moved to Burdwan (now Bardhaman) District hospital as a Gynecologist from June 1964 for 5years. There after he was transferred to Nil Ratan Sircar Medical College Hospital (NRS MCH), a prestigious post graduate medical institute in this country, in 1969. He continued his work as a professor in the Department of Obstetrics and Gynecology at NRS Medical College for a long time. He was transferred in early 1979 to Calcutta Medical College and Hospital, (CMC). He retired as a Professor in Obstetrics and Gynecology on 31st October 1984 from the same college whence he started his carrier as a medical student.

He was one of the most popular teacher in the University of Calcutta. His works, teaching ,training and dedication to patient care, influenced thousands of his students that they are working in different parts of the globe now. He had an exceptional memory. He used to call his patient by her name even if he has seen her years ago. His main clinical interest was the management of High Risk Pregnancy. He first conceived the idea of multidisciplinary team approach in the management of such high risk cases. His dedication for the care of women's health and as a teacher in this country is exemplary.

His contributions to medical fraternity is enormous in terms of medical research , publications and leadership in many state and national organizations. Prof. K.M. Gun was the honorary Secretary of the Bengal Obstetrics and Gynaecological Society (BOGS) in 1972 and became the President of the Bengal Obstetrics and Gynaecological Society, in 1982. He was the Editor-in-Chief of the of the journal of the society "ISOPARB" in the year 1986-2000 and 1992-2000. He was the Vice President of the Federation of Obstetrics and Gynecological Societies of India (FOGSI) in the year 1983-84.

Professor (Dr) Kshitrindra Mohan Gun, breathed his last at his residence on 30th of December in 2019. He is remembered by his daughter and thousands of his students, colleagues and the patients that they were associated with him.

May his soul rest in peace.

Instruction to Authors

The Journal of Indian Society of Perinatology and Reproductive Biology which is the official publication of the Indian Society of Perinatology and Reproductive Biology (ISOPARB) invites original research articles in gynaecology / obstetrics / related subjects in the following category: Clinical Articles; Review Articles; and Brief Communications (including Case Reports).

All manuscripts should be prepared according to the guidelines detailed below. Any manuscript that has not been formatted as per the ISOPARB requirements will be returned to the author for correction. All manuscripts should be created and submitted in Word format.

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(3) Final approval of the version to be published; AND

(4) Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

3. CLINICAL TRIALS AND REVIEW ARTICLES

Clinical trials

Submission of clinical trials must include reference to ethics approval (or explanation of why ethics approval was not received). Authors must consult the CONSORT statement and checklist and submit a CONSORT flow chart as an editable figure in Word/PowerPoi ntformat.

The clinical trial registration is preferable and information should be included at the end of the abstract of the submitted manuscript.

Review articles

Reviews based on the recent and relevant subjects of clinical interest should be considered.

4. LAYOUT OF MANUSCRIPTS

Manuscript text should be in English (US spelling), double-spaced, font size 12, in Arialmmes New Roman font.

First page

The first page of the manuscript should contain the following: (1) title; (2) full names of authors (6 maximum, although listing more authors may be considered on an individual basis if authorship requirements have been met and a request has been included in the cover letter); (3) affiliations of authors (i.e. department, section or unit of

an institution, hospital or organization, city, and country (4) full contact details (postal address. email address) of the corresponding author ; (5) a list of up to 8 keywords for indexing and retrieval:

Footnotes linking author names to affiliations should be listed as 1,2,3 etc..

The first page should also list the type of article: Clinical Article; Brief Communication: or Review Article.

Abstract

Clinical Articles

A structured abstract not exceeding 200 words is required for all full-length clinical articles. It should contain all and only the following headings: Objective; Methods; Results; and Conclusion.

The Objective reflects the purpose of the study: that is, the hypothesis that is being tested. The Methods should include the setting for the study, the participants (number and type), the treatment or intervention, and the type of statistical analysis. The Results include the outcome of the study and statistical significance, if appropriate. The Conclusion states the significance of the results.

Review articles

An abstract not exceeding 200 words is required for all review articles.

Narrative reviews require an unstructured abstract. Systematic review articles should have a structured abstract with the headings; Background; Objectives; Search strategy; Selection criteria; Data collection and analysis; Main results; and Conclusions.

Brief communications

Brief communications should not include an abstract.

Main text

In full-length articles, subject matter should be organized under the following headings, with no subheadings: Introduction; Materials and methods; Results; Discussion; Acknowl edgments; Conflicts of interest; and References.

Brief communications should not have any headings separating the text.

Clinical articles

The main text of clinical articles should not exceed 2500 words, excluding the first-page information, abstract (no more than 200 words), author contributions, acknowledgments, Conflicts of interest, references (no more than 25), figure legends, and tables and figures. Please include the word count in the cover letter and on the first page of the manuscript.

Review articles

Review articles should have no more than 3000-3500 words in the main text and 40 references. Please include the word count in the cover letter and on the first page of the manuscript.

Brief communications

Brief communications should be no more than 400 words, excluding the first-page information, synopsis, keywords, author contributions, acknowledgments, conflicts of interest, references, figure legends, and tables and figures. There should be no more than 4 references and no more than 1table or 1figure.

Power calculations, statistics, and reporting of numbers.

Power calculations

Where appropriate (e.g. for clinical trials), power calculations should be performed as part of the study design, and a statement providing the power of the study should be included in the Materials and Methods. Authors should state how the power calculation was determined, including what type of difference the calculation was powered to detect and on what studies the numbers are based.

Statistics

The statistical tests used and the significance level set should be listed in the methods for all studies that employed statistical analysis. Information regarding the statistical software programs used should be included in the methods: for example, "SPSS version 20 (IBM, Armonk, NY, USA)." This information should not be included in the reference list.

P values should be provided where calculated. The largest P value that should be expressed is P>0.99. The smallest P value that should be expressed is P<0.001.

For measures of effect (e.g. relative risks, risk ratios, odds ratios), authors should also report confidence intervals (e.g. 95%) so that the precision of the effect estimate can be assessed.

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Studies of patients, patient records, or volunteers require Ethics Committee approval and informed consent.

Ethics approval

Include a statement in the methods that the research protocol was approved by the relevant Institutional Review Board or Ethics Committee before the study began; if such approval was not needed/obtained, include an explanation. Authors must provide copies of the appropriate documentation if requested.

Informed consent

Include confirmation in the methods that all human participants gave written informed consent before the study began; if consent was not needed/obtained, include an explanation. Authors must provide copies of the appropriate documentation if requested.

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Sources of funding should be acknowledged by the author(s), along with the names of individuals who do not fulfil the criteria for authorshi p, but who have made a substantial contribution to the manuscript.

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A conflict-of-interest statement must be included in the cover letter and before the reference list in the manuscript. It should list any relationships (for any author) that may be deemed to Influence the objectivity of the paper and its review, or state that no such relationships exist. Commercial associations, either directly or through immediate family, in areas such as expert testimony, consulting, honoraria, stock holdings, equity interest, ownership, patent-licensing situations or employment that might pose a Conflicts of interest should be stated. Conflicts for other reasons, such as personal relationships or academic competition, should also be stated.

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The number of references should not exceed 25 for clinical articles, 40 for review articles, and 4 for brief communications; in general, they should be limited to the past decade. They must be numbered and listed as they are cited in the article, using Index Medicus abbreviations for journal titles. Cite the names of all authors when there are six or fewer; when there are seven or more, list the first three authors followed by "et al." Include the volume number.

Journal article

[1] Vellacott ID, Cooke EJ, James CE. Nausea and vomiting in early pregnancy. Int J Gynecol Obstet. 1988;27:57-59 .

Book

[2] Speroff L, Glass BH, Kase NG. Clinical Gynecologic Endocrinology and Infertility. Baltimore: Williams and Wilkins; 1982.

Chapter in a book

[3] Disaia PJ, Creasman WT. Invasive Cancer of the Vulva. In: Disaia PJ, Creasman WT, eds. Clinical Gynecologic Oncology. St Louis: C.V. Mosby; 1984:214-219.

Web reference

[4] World Health Organization. WHO Recommended Surveillance Standards, Second Edition [WHO website). 1999. http://www.who.int/csr/resources/publications/surveillance/whocdscsrisr992.pdf.

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