

A study of various puerperal complications at tertiary health care centre

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Abstract

Background: Motherhood is a distinct bio-psychosocial process that transforms and broadens the role of a woman into that of a mother. Puerperium is a period, when most newly delivered mothers experience intense physical and emotional stress due to exhaustion, anxiety and excitement. **Aims and Objectives:** A study of various puerperal complications at tertiary health care centre. **Methodology:** This was a cross-sectional study carried out in the patients with complications in puerperium at Padmashree Dr DY Patil hospital, Navi Mumbai between the time period of July 2016 till December 2017. 186 patients were inducted into this study during the aforesaid time period. Statistical analyses were done using SPSS 19 versions. **Results:** In our study we saw that majority of patients were in the age group of 26-30 years (24.7%), followed by 21-25 years (21.5%), 31-35 years (20.4%), less than 20 years (17.2%), and greater than 36 years (16.1%). Majority of the patients were primigravidae (51.6%), followed by second gravidae (22.7%), third gravidae (10.7%) and fourth/ more gravidae (15%). The complications were: Postpartum hemorrhage: Primary: (Atonic (9.6%), Traumatic (24.1%)) and Secondary (5.3%), Wound infection: (Episiotomy infections (13.4%) and LSCS wound infections (14.5%)), Fever/septicemia (8.6%), Postpartum Convulsions (5.3%), Breast affections such as Mastitis (3.7%), Retracted nipple (1.07%) and Cracked nipple (1.61%), serious complications such as DIC (2.6%) and Subinvolution (2.1%), Urinary Complications such as Retention (0.5%) and UTI (0.5%), Psychological problems such as depression and severe agitation (1.07%), Inversion of uterus found in 0.5% and Retained placental fragments found in 4.8%. **Conclusion:** It was concluded from our study that most of patients affected with complications were in the age group of 26-30 years. Majority of the patients were primigravidae. The most common complication was postpartum haemorrhage followed by other complications that included: wound infections, fever/septicemia, postpartum convulsions, breast affections, Disseminated intravascular coagulopathy, subinvolution, psychological conditions and inversion of uterus.

Key Word: Puerperal complications, DIC, Postpartum Convulsion, Atonic uterus.

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INTRODUCTION

Motherhood is a distinct bio-psychosocial process that transforms and broadens the role of a woman into that of

a mother. Puerperium is a period, where the newly delivered mother experiences intense physical and emotional stress due to exhaustion, anxiety and excitement. In the oldest Japanese classic tale, Kojiki, the goddess Izanami no Mikoto, one of the creators of Japan, was killed by her last son, Kagutsuchi, a deity of fire who burned his mother's birth canal. It is proposed that this tale reflects the incidence of local puerperal infection and subsequent sepsis, the greatest health risk to mothers in ancient Japan.¹ Hippocratic writings contain references to childbed fever, as do some Hindu texts dating back to 1500 BC. The potential for birth attendants in initiating such infections seems evident in some of the ancient writings by Greek physician Soranus and Hindu scriptures that advised on hygiene for birth attendants.²⁻⁴ Puerperal

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infections are responsible for approximately 10% of maternal deaths in Asia and other underdeveloped countries like Africa.^{5, 6} According to reports from WHO, puerperal sepsis has been stated to be the second leading cause of maternal mortality in developing countries.⁷ Thus, we have done a study that highlights the incidence and occurrence of various puerperal complications with relation to age, parity and other personal and socioeconomic factors.

METHODOLOGY

This was a cross-sectional study carried out in the patients who suffered complications in puerperium at Padmashree Dr DY Patil hospital, Navi Mumbai between the period of July 2016 till December 2017. 186 patients who suffered

puerperal complications were included in this study. Personal attributes such as age, sex, weight, BMI were taken in consideration. All enrolled patients underwent routine and other indicated investigations, followed by a thorough clinical assessment, sonography, CT scan and other aids to investigations. Patients with following complications were enrolled in the study: Postpartum haemorrhage (atonic, traumatic or secondary). Retained placental fragments. Inversion of uterus. Sub involuted uterus. Fever and infections. Coagulopathy. Infection at site of incision (episiotomy and LSCS). Breast infections (mastitis, cracked nipple, engorged breasts and breast abscess). Postnatal psychological complications. Mortality, if any was noted.

The statistical analysis was done SPSS 19 versions.

RESULT

Table 1: Distribution of the patients as per the Age

Age(Years)	Number(n=186)	Percentage (%)
<20	32	17.2%
21-25	40	21.5%
26-30	46	24.7%
31-35	38	20.4%
>36	30	16.1%
Total	186	100.00%

Majority of patients were in the age group of 26-30 years (24.7%), followed by 21-25 years(21.5%), 31-35 years (20.4%), <20 were 17.2% and >36 were 16.1%.

Table 2: Distribution of the patients as per the Parity

Parity	Number (%)
Primigravida	96(51.6%)
2 nd Gravida	42(22.5%)
3 rd Gravida	20(10.7%)
4 th or more Gravida (multipara)	28(15%)

majority of the patients were Primigravidae i.e. 51.6%; followed by 2nd Gravidae (22.5%), 3rd were 10.7% and 4th or more gravidae were 15%.

The complications were: Primary postpartum hemorrhage (Atonic) in 9.6%, Traumatic variety in 24.1% and secondary post partum hemorrhage occurred in 5.3%. Wound infection because episiotomy was 13.4%; and because of LSCS was 14.5%, Fever/septicaemia occurred in 8.6%, Postpartum convulsions in 5.3%. Breast Complications like Mastitis in 3.7%, Retracted nipple in 1.07% and Cracked nipples occurred in 1.61% of patients. DIC occurred in 2.6%, Subinvolution in 2.1%, Urinary Complications were reported in 1.07%, Inversion of uterus found in 0.5% and retained placental fragments found in 4.8% of patients.

Table 3: Distribution of the patients a per the Puerperal Complications

Reral Complications	Number (%)
(1) PPH (n =73)	
(a) Primary n=63	18(9.6%)
i) Atonic	45(24.1%)
ii) Traumatic	10(5.3%)
(b) Secondary n=10	
Total	73(36.3%)
(2) Wound infection(n=52)	
i) Episiotomy	25(13.4%)
ii) LSCS	27(14.5%)
Total	52(25.8%)
(3) Fever/septicemia(n=16)	16(8.6%)
(4) Postpartum Convulsion (n=10)	10(5.3%)
(5) Breast Complications (n=12)	
i) Mastitis	7(3.7%)
ii) Retracted nipple	2(1.07%)
iii)Cracked nipple	3(1.61)
Total	12(5.9%)
(6) DIC (n=5)	5(2.6%)
(7) Subinvolution (n=4)	4(2.1%)
(8) Urinary Complications (n=2)	
i) Retention	1(0.5%)
ii) UTI	1(0.5%)
Total	2(1.07%)
(9) Psychological complications (n=2)	2(1.07%)
(10) Inversion of uterus (n=1)	1(0.5%)
(11) Retained placental fragments (n=9)	9(4.8%)

Puerperal Complications	Present study Number (%)	Josiah <i>et al</i> ¹⁵ %(For comparision)	Ranibag <i>et al</i> ¹⁶ (For comparision)
(12) PPH n=73			
(c) Primary n=63	18(9.6%)		
iii) Atonic	45(24.1%)		
iv) Traumatic	10(5.3%)		
(d) Secondary n=10			
Total	73(36.3%)	35.4%	28.4%
(13) Wound infection n=52			
iii)Episiotomy	25(13.4%)	-	-
LSCS	27(14.5%)		
Total	52(25.8%)	8.7%	-
(14) Fever/septicemia n=16	16(8.6%)	20.4%	22.2%
(15) Postpartum Convulsion n=10	10(5.3%)	24.8%	9.6%
(16) Breast Complications n=12			
iv) Mastitis	7(3.7%)		
v) Retracted nipple	2(1.07%)	1.2%	4.2%
Cracked nipple	3(1.61)		
Total	12(5.9%)		
(17) DIC n=5	5(2.6%)		
(18) Subinvolution n=4	4(2.1%)	-	-

(19) Urinary Complications n=2	1(0.5%)		
iii) Retention	1(0.5%)	-	-
UTI			
Total	2(1.07%)	-	-
(20) Psychological Complications n=2	2(1.07%)	7.4%	4.9%
(21) Inversion of uterus n=1	1(0.5%)	-	-
(21) Retained placental fragments n=9	9(4.8%)	0.8%	-

DISCUSSION

According to The World Health Organization (WHO), puerperal sepsis is defined as the infection of the genital tract occurring at labor or within 42 days of the postpartum period. Puerperal sepsis/pyrexia presents commonly with fever and other symptoms like pelvic pain, foul smelling vaginal discharge and delayed reduction of the uterine size.⁸ World literature search as revealed by a Nigerian study⁹ reported that puerperal sepsis is the second leading cause of maternal deaths accounting for 26.3% of deaths, while another WHO report estimated 358,000 maternal deaths yearly occurring due to problems during child birth and out of these up to 15% are associated with puerperal sepsis.¹⁰ Dushyant D et al study reported that puerperal pyrexia and sepsis are highly preventable problems that cause immense maternal morbidity and mortality not only in the developing countries but also in developed countries. Common predisposing factors leading to puerperal sepsis are anaemia, prolonged labor, frequent vaginal examinations under unsterilized circumstances and premature rupture of membranes for prolonged period of time.¹¹ Puerperal sepsis results from infection contacted during child birth and this is one of the commonest causes of maternal mortality in the developing countries. Despite discovery of antibiotics over eighty years ago, there is still a such a high incidence of puerperal sepsis in developing nations either due to non adherence of antiseptic protocols or appearance of highly resistant strains of organism. Though the second hypothesis hasn't been scientifically proven, I presume that there is a lapse or neglect of basic obstetric protocols. Devising appropriate protocols with local population and deviations in the equation could result in near precise predictions in course of labor. Mandatory use of antiseptic during examination, avoidance of repeated examinations, judicious use of antibiotics (chosen after sensitivity tests) are need of the hour. Forced vaginal deliveries employing instrumentation and fundal push should be discouraged in favour of safer options such as Caesarean sections, because these not only cause pain, infections and disfigurement but also scar the lady for life creating fear from childbirth and dyspareunia. History testifies that childbirth has always been a bloody and painful affair,

most women fear it and if all goes well, Indians congratulate the mother calling it second birth. We need to devise time bound sophisticated protocols and emphasize that Caesarean sections are as safe as vaginal births. The author wishes to clearly state that he does not advocate Caesarean over vaginal birth but wishes to acknowledge the increasing trend of caesarean section due to advances in technology, better care and nutritional improvement in antenatal mothers. Let the goal be to deliver healthier babies rather than try all possible aid that even faintly signal toward a possible vaginal delivery. Cautious monitoring of progress, timely decisions and swift implementation of these judgments is the key to bring down rates of puerperal sepsis. Highlights of the study were that majority of the patients that suffered puerperal complications were in the age group of 26-30 years followed by those in 21-25, 31-35 less than 20 years and finally those more than 36 years. Majority of the patients were Primigravidae followed by 2nd, 3rd and finally the multigravidae. Primary Atonic postpartum hemorrhage was reported in 9.6%; Traumatic was 24.1%; and Secondary in 5.3%, wound infections due to episiotomy were 13.4% and because of LSCS were 14.5%. Fever/septicaemia occurred in 8.6% patients. Postpartum convulsions affected 5.3% cases. Breast Complications like mastitis, retracted nipples and cracked nipples occurred in 3.7%, 1.07% and 1.6% respectively. DIC occurred in 2.6%. Subinvolution in 2.1%, Urinary complications such as retention and urinary tract infections occurred in 0.5% of patients. Psychological complications such as postpartum depression occurred in 1.07% of patients. Third stage complications such as inversion of uterus and retained placenta were seen in 0.5% and 4.8% patients respectively. These findings were similar to Josiah et al, Ranibag et al as shown in the table

CONCLUSION

It can be concluded from our study that majority of the patients that suffered puerperal problems were in the age group of 26-30 years. Majority of the patients were pregnant for the first time. The most common complication was post partum hemorrhage. This complication was followed by wound infections and breast related problems. An alarmingly high rate of retained placenta were found in the study when

compared to other standard studies, emphasizing the need for patient and controlled delivery of placentae, it could also imply an increase in chorioamnionitis or adherent placentae in cases of previous caesarean or old endometrial infections. Unfortunately a histopathology of placenta was not done as a part of this study. The incidence of psychological problems, convulsions and urinary tract infections was low and stood at the end of the table. This could possibly be attributed to joint family system that still prevails in our country and that which provides necessary emotional and physical support to newly delivered mothers.

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