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A CASE-SERIES STUDY TO ASSESS FETO-MATERNAL MORTALITY RATE AND ITS ASSOCIATION WITH THE INCIDENCE OF RUPTURED UTERUS IN PREGNANT WOMEN

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Abstract:

OBJECTIVE: *The objective of our research was the determination of feto-maternal outcomes frequency in the patients of the ruptured gravid uterus.*

Methodology: *Our case series research was carried out at Sir Ganga Ram Hospital, Lahore in the timeframe of February 2017 to November 2017 on 120 patients of ruptured uterus (vaginal bleeding, abdominal pain, hypotension and fetal bradycardia respectively as (Blood Pressure < 90/60 mmHg) and (heart rate above 100 beats/minute). It is in actual a tear which is diagnosed through laparotomy in the gravid wall: gestational age more than 20 weeks, The age bracket of the patients was from 20 – 45 years. We did not include all the patients who presented a history of antepartum haemorrhage, eclampsia/ preeclampsia and placenta previa. A senior gynaecologist was detailed for the departmental management of the patients. Until delivery, a continuous electronic monitoring was also continued and outcomes such as the death of the fetus were also documented. Wound infection was measured for maternal outcomes. It was categorized as pus after one week of surgical intervention and death whether within the management period or at any later stage.*

Results: *Research sample consisted of 120 patients with an age distribution such as 78 patients in the age bracket of 20 – 30 years (65%), 42 patients in the age bracket of 31 – 45 years (35%) and Mean ± SD was (27.96 ± 7.11) years. According to the distribution of parity 39 cases were of parity 1 – 3 (32.5%) and 81 cases had a parity more than 3 (67.5%). Feto-maternal outcomes were also observed as 23 cases of wound infection (19.17%), 11 cases of maternal mortality (9.17%) and 68 fetal mortality cases (56.67%).*

Conclusion: *Fetal mortality rate was high in the cases with a ruptured gravid uterus who visited the healthcare facilities in order to seek proper disease management.*

Keywords: *Feto-maternal Outcome, Ruptured Gravid Uterus, Wound Infection, Fetal Mortality and Maternal Mortality.*

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INTRODUCTION:

Ruptured uterine is a serious and severe threat to life and also serious medical state which has a morbidity rate in the range of (1: 250 – 1: 5000) [1]. Regional variations are also there which are subject to the provision and quality of healthcare facilities. Low literacy, increased state of poverty, poor transportation facilities, cultural constraints, substandard communication facilities and inadequate health are taken as risk factors in the under-developed countries [2].

Various other factors are also involved such as age limit (31 – 35) years, breech extraction, multi-parity, obstetrical trauma from prolonged labour or neglected labour, external and internal podalic version, manual cervical dilatation and non-judicious oxytocin use, prostaglandins carried out by an untrained paramedical staff and any unknown corporeal scar [3].

An in-time diagnosis is very much important as the clinical indications are very subtle such as vaginal bleeding, severe lower abdominal pain, tenderness, hypotension and fetal bradycardia [4]. Adverse and severe outcomes are also linked with uterine ruptures such as bladder rupture, uterine atony, anaemia, infections, wound complications, infertility, vasico-vaginal fistula and foot drop [5]. This situation can also be responsible for peripartum hysterectomy, fetal mortality and maternal mortality [1]. Suture repair is carried out in case of infertility reduction and reduction of ruptured uterine; whereas, chances of recurrence cannot be overlooked [6]. An early treatment of the disease can be very much helpful for the reduction of mortality and morbidity rate [7]. According to the already available literature, the wound infection rate is reported about 8.2% in such patients [1]. Whereas according to another author the wound infection rate was reported about 36.6% [8]. Various studies have reported various proportions ranging from zero to twenty percent [1, 2, 8, 9]. The proportions of fetal mortality are also reported with different proportions in various research studies such as 41%, 88.4%, 173.3% and 93% [5, 9, 10].

There is a great variation in the outcomes as evinced from the previously available literature. There is a genuine need for the re-assessment in order to find out accurate mortality and morbidity rate in the ruptured gravid uterus patients. Our outcomes may be helpful for the healthcare professionals for the reduction of maternal and fetal outcomes and the incidence of wound infection in the local sample populations.

MATERIAL AND METHODS:

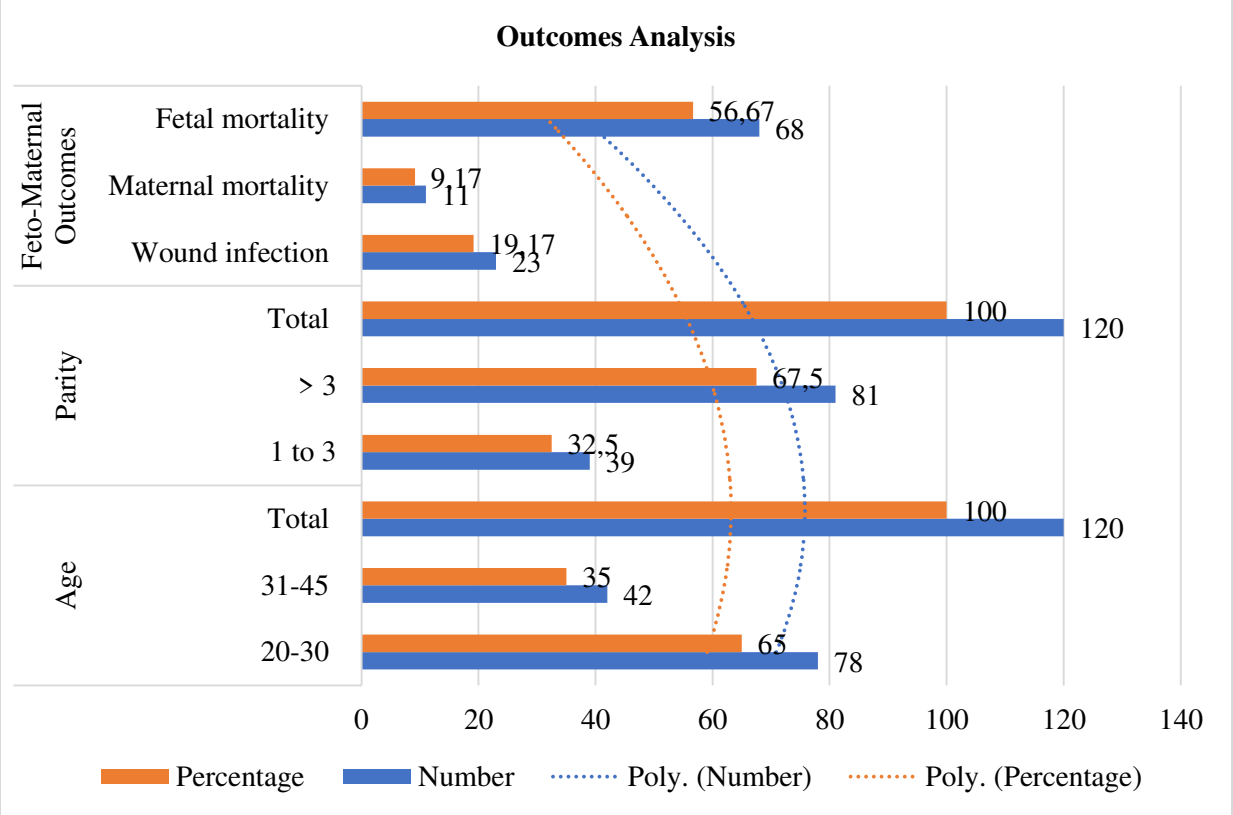
Our case series research was carried out at Sir Ganga Ram Hospital, Lahore in the timeframe of February 2017 to November 2017 on a total of 120 patients of ruptured uterus (vaginal bleeding, abdominal pain, hypotension and fetal bradycardia respectively as (Blood Pressure < 90/60 mmHg) and (heart rate above 100 beats/minute). It is in actual a tear which is diagnosed through laparotomy in the gravid wall (gestational age more than 20 weeks), The age bracket of the patients was from 20 – 45 years. We did not include all the patients who presented a history of antepartum haemorrhage, eclampsia/ preeclampsia and placenta previa. A senior gynaecologist was detailed for the departmental management of the patients. Until delivery, a continuous electronic monitoring was also continued and outcomes such as the death of the fetus were also documented. Wound infection was measured for maternal outcomes. It was categorized as pus after one week of surgical intervention and death whether within the management period or at any later stage. Outcomes were analyzed on SPSS.

RESULTS:

The research sample consisted of 120 patients with an age distribution such as 78 patients in the age bracket of 20 – 30 years (65%), 42 patients in the age bracket of 31 – 45 years (35%) and Mean ± SD was (27.96 ± 7.11) years. According to the distribution of parity 39 cases were of parity 1 – 3 (32.5%) and 81 cases had a parity more than 3 (67.5%). Feto-maternal outcomes were also observed as 23 cases of wound infection (19.17%), 11 cases of maternal mortality (9.17%) and 68 fetal mortality cases (56.67%). All the outcomes have been displayed in the tabular data.

Table: Study Outcomes

Outcomes		Number	Percentage
Age	20 – 30	78	65
	31 – 45	42	35
	Total	120	100
Parity	1 to 3	39	32.5
	> 3	81	67.5
	Total	120	100
Feto-Maternal Outcomes	Wound infection	23	19.17
	Maternal mortality	11	9.17
	Fetal mortality	68	56.67



DISCUSSION:

The findings of this particular research were reported higher wound infection than a research which reported wound infection as (8.2%) and these outcomes were also less than another research outcome; where wound infection was reported about (36.6%), our research reported wound infection as (19.17%) [1, 8].

Our outcomes are almost the same as reported by Fofie C, he reported about (9.8%) maternal mortality in the females in comparison to our reported mortality of (9.17%). Other research studies reported a higher incidence in comparison to our research outcomes such as 20% and 17.5% [2, 9].

Fetal mortality outcomes of our research were also comparable to the outcomes as reported by Turgut A (41%) [1]. Other authors have also reported fetal mortality with various proportions such as 73.3%, 93% and 88.4%, these outcomes are not the same as we reported [5, 9, 10].

The lower rate of mortality is also observed in the better-facilitated healthcare regions. No death was

reported in the timespan of thirty-two months in the patients of scarred uterus rupture against nine deaths reported in the sixty-one cases (15%) of the intact uterus. Leung reported one death in the 99 uterine rupture patients [9].

The association of maternal mortality to rupture uterine was observed by Marivate and Mokgokong; they reported that it depends on diagnosis post or pre-delivery, respective proportions were also reported as 10.4% and 4.5% [12].
Higher fetal mortality rates have been reported in the previous studies among uterine rupture patients, especially in early studies which were held before the 1970s. Benson and Schrinsky reviewed 33 research studies and studied 960 uterine rupture patients; they reported perinatal mortality and infant deaths as 65% and 620 respectively. According to Blanchette, in the sample of 12 female's neonatal death was about seventeen percent [13]. One child died with a very short delivery decision time (26 minutes) with other onsets of lower abdominal pain, acute fetal bradycardia and vaginal bleeding that caused an incidence of uterine rupture.

Leung reported six percent incidence of perinatal deaths in the total of 99 patients of uterine rupture [11]. Lydon-Rochelle reported 4 / 91 deaths with a proportion of (5.5%) against controls (0.5%) [14]. According to Landon perinatal deaths were about two percent [4]. These outcomes reflect a decrease in the incidence of perinatal death which is linked with the uterine rupture cases because of the development in the field of medicine and associated facilities; whereas, our setup still reported a higher rate of fetal mortality.

An earlier diagnosis of uterine rupture is recommended with the help of all available modern resources in order to avoid complications and feto-maternal death. Antenatal care is of extreme importance in the prevention of such complication in the affected pregnant women. The standards of antenatal care need attention.

CONCLUSION:

Fetal mortality rate was high in the cases with a ruptured gravid uterus who visited the healthcare facilities in order to seek proper disease management.

REFERENCES:

1. Igwegbe AO, Eleje GU, Udegbunam OI. Risk factors and perinatal outcome of uterine rupture in a low-resource setting. Niger Med J. 2013; 54:415-9.
2. Leung AS, Leung EK, Paul RH. Uterine rupture after previous cesarean delivery: maternal and fetal consequences. Am J Obstet Gynecol. Oct 1993;169(4):945-50.
3. Mokgokong ET, Marivate M. Treatment of the ruptured uterus. S Afr Med J. Sep 251976;50(41):1621-4.
4. Blanchette H, Blanchette M, McCabe J, Vincent S. Is vaginal birth after cesarean safe? Experience at a community hospital. Am J Obstet Gynecol. Jun 2001;184(7):1478-84; discussion 1484-7.
5. Lydon-Rochelle M, Holt V, Attarde VY, Patil P, Easterling TR. Risk of uterine rupture during labor among women with a prior cesarean delivery. N Engl J Med 2001; 345:3–8.
6. Sun HD, Su WH, Chang WH, Wen L, Huang BS, Wang PH. Rupture of a pregnant unscarred uterus in an early secondary trimester: a case report and brief review. J Obstet Gynaecol Res. 2012; 38:442–5.
7. Akhtar Y. Ruptured uterus. Professional MedJ,2010;17:314-7.
8. Fofie C, Baffoe P. A two-year review of uterine rupture in a regional hospital. Ghana Med J. 2010; 44:98–102.
9. Rizwan N, Abbasi RM, Farhan Uddin S. Uterine rupture, frequency of cases and feto-maternal outcome. J Pak Med Assoc.2011; 61:322-4.
10. Turgut A, Ozler A, Evsen MS, Soydinc HE, Goruk NY, Karacor T, et al. Uterine rupture revisited: predisposing factors, clinical features, management and outcome from a tertiary care centre in turkey. Pak J Med Sci2013;29: 753-7.
11. Nyengidiki TK, Allagoa DO. Rupture of the gravid uterus in a tertiary health facility in the Niger delta region of Nigeria: A 5-yearreview. Niger Med J 2011; 52:230–4.
12. Olagbuji BN, Okonofua F, Ande AB. Uterine rupture and risk factors for caesarean delivery following induced labour in women with one previous lower segment caesarean section. J Matern Fetal Neonatal Med. 2012; 25:1970–4.
13. Palerson-Brown S. Obstetrics emergencies. In: Edmonds DK, editor. Dewhurt's textbook of obstetrics & gynecology. 8th ed. London: Willey Blackwell; 2012;290-310.
14. Kadowa I. Ruptured uterus in rural Uganda: prevalence, predisposing factors and outcomes. Singapore Med J 2010; 51:35–8.