GRAND MULTIPARA: STILL A MAJOR RISK FACTOR?
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INTRODUCTION
Multiparity has always been considered associated as a factor for poor maternal and neonatal outcome. It has often been described as a risk factor for variety of obstetric complications. Grand multipara has been defined as a parity of five or more and has been seen to have strong correlation with increased operative delivery and medical disorders like anemia, diabetes and hypertension.

METHOD: A study of 8304 deliveries was conducted over a period of 1 year from September 2013 to August 2014 assessing the labour records of Rajendra Institute of Medical Sciences, Ranchi and studying the demographic pattern of the laboring patients and studying mode of delivery and associated other complications. The study group comprised of parity five and above and the others were included in the control group.

RESULT: Over the study period there were 8304 deliveries, 422 were grand multiparas with mean age of 30 yrs. Majority of the patients in the study group were unbooked and of low socioeconomic status. The incidence of LSCS was 20% and 11% in control group and study group. Rupture uterus was frequently seen grand multipara (15% vs. 1%). The incidence of medical disorders like anemia, hypertension and diabetes was more in the grand multipara group.

CONCLUSION: Grand multipara is associated with higher incidence of caesarean section and medical disorders like anemia, diabetes and hypertension.

Keywords: Grand multipara, rupture uterus, anemia, hypertension, malpresentation.

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the medical facilities in the state.

MATERIAL AND METHOD

This cross sectional study was carried out in Rajendra Institute of Medical Sciences, Ranchi from the period of September 2013 to August 2014. Patient data was collected at the time of admission in the labour room of the hospital. The resident doctors on duty recorded the patient and labour outcome. The monitoring of labour and management was done by the on call team comprising of one specialist obstetrician, three obstetric residents, one intern and nursing staff on a 12 hour duty. Also there is a senior specialist on call for 24 hours. There is also an anaesthetist and a paediatrician available 24 hours. There is a well-equipped blood bank in the hospital for blood and blood products required during emergencies.

The patients were informed of the study and a consent to participate in the study was taken. The patients were divided into study and control group. Study group included women with parity ≥5. The control group included patients with parity 1-5.

RESULTS

There were total 8304 deliveries from September 2013 to August 2014. Out of these patients, 422 (5.08%) patients were grand multiparas. The mean age of patients in study group was 30 years whereas in control group was 25 yrs.

DISCUSSION

Many studies till date have been performed to study the effect of multiparity on maternal and fetal prognosis. Our study showed most multiparous patients came to the hospital for delivery without any antenatal investigations and check up done before (Fig.1). The percent of patients in the control group who were not booked was less than the one in the study group (78% vs 32%). Most (79%) of the patients of the control group were of low socioeconomic group in the study group. Teguete I et al 7 in a retrospective cross sectional study done at a tertiary care hospital studied 13340 patients of which 3617 were grand multipara and stated that grand multipara are older, poorer and less likely to have accessed prenatal care. Roman H et al 8 also stated that grand multipara was associated with low socioeconomic status and education and poorer prenatal care (Fig. 2).

In our study 58% of patients in the study group had spontaneous vaginal delivery compared to 82% in the control group. The percentage of patients with instrumental vaginal delivery like application of vacuum and forceps was more in the control group than the study group. The incidence of LSCS was 20% and 11% in study and control group. Al-sibai MH9 studied 1330 cases of multiparous pregnancies and caesarean section was found to be higher in the study group than the control group (11.4% and 8.9%). Andrew H Mgaya et al 10 reported spontaneous vaginal delivery in 64.2% in grand multipara compared to 61.2% in control group. The incidence of LSCS was more (38.7% vs 34.7%) in multipara. Contrary to our study the percentage of instrumental vaginal delivery was more in grand multipara than the control group (1.1% vs 0.1%). Shahida et al 11 also observed that the incidence of caesarean section was higher in the multipara group than the control group (325vs 21%). Roman H et al showed increased incidence of instrumental delivery in grandmultipara. The main indications for
caesarean section in grand multipara were obstructed labour mostly due to malpresentation and deflexed fetal head. Second most common indication in grand multipara was placenta previa (20%). The most common indication for caesarean in control group was fetal distress at 70% as compared to 2% in study group.

Rupture uterus was quite frequently seen in the grand multipara group than the control group (15% vs 1%). Shahida et al. also had the same observation that rupture uterus were significantly higher among grand multiparity.

Majority of patients of the grand multipara group suffered from medical complications like anaemia. Hypertension and diabetes. Ninety two percent of patients of the grand multipara were found to have anaemia (Hb< 11 gm%) as compared to 80% percent in the non grand multipara group. Also incidence of hypertension and diabetes was higher in grand multipara as compared to non grand multipara group (43% vs 14%) and (10% vs 3%). Shahida et al. in their study published in 2011 also found higher incidence of anaemia in grand multipara. Also other complications like hypertension and diabetes were significantly higher in grand multipara than non grand multipara. Evaldson et al. also observed the higher frequency of diseases like diabetes and hypertension in the grand multipara group. Most of the studies conducted over the last few decades state increased association of anaemia, diabetes and hypertension with multiparity. On the contrary, Andrew H Mgaya on the contrary found the prevalence of hypertension and diabetes in pregnancy comparable between the two groups.

CONCLUSION

Grandmultiparity was seen to be associated with medical complications like anaemia, diabetes and hypertension. The grand multipara group is also associated with higher rates of caesarean section and incidence of obstructed labour and rupture uterus.

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