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RISK FACTORS ASSOCIATED WITH PLACENTA PREVIA IN PATIENTS PRESENTING TO A TERTIARY CARE TEACHING HOSPITAL IN PESHAWAR

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ABSTRACT

Objectives: To identify risk factors associated with placenta previa in patients presenting to a tertiary care teaching hospital in Peshawar.

Material and Methods: This was a hospital based descriptive study, conducted at the Department of Obstetrics and Gynaecology, Khyber Teaching Hospital, Peshawar from March 2007 to July 2008. Patients who were diagnosed to have placenta previa by ultrasonography were included in the study. Data was collected using a written, structured questionnaire and analyzed using SPSS.

Results: A total of 8253 women had delivery in the study period, of whom 100 patients were diagnosed to have placenta previa. Mean age of the patients with placenta previa was 30 ± 4.66 years. 53% of patients were multigravida and 40% had previous one or more cesarean sections. A slight predominance of male fetuses was found.

Conclusions: The most important obstetric risk factors for placenta previa are advanced maternal age, multiparity and previous surgery on the uterus.

Key Words: Placenta previa, risk factors.

INTRODUCTION

Bleeding from placenta previa is one of the most acute and life threatening emergencies in obstetric practice[1]. Placenta previa is the placenta implanted entirely or in part in the lower uterine segment[2]. The incidence of placenta previa in pregnant women is approximately 0.3% to 0.8%[3]. The etiology is unknown but various associations have been identified[4]. Advanced maternal age, multiparity, previous cesarean sections and miscarriage, smoking, and cocaine use during pregnancy, male fetuses and in vitro fertilization all confer increased risk for placenta previa[5-9]. Association has been shown between increasing maternal serum alpha fetoprotein values and greater likelihood of persistent placenta previa[10].

Placenta previa is one of the known causes of feto-maternal mortality[11]. It triples the rate of neonatal mortality which is mediated mainly by preterm birth[12]. Prematurity, stillbirth and early neonatal death is associated with placenta previa[13]. The purported significance of this study is to evaluate common risk factors in pregnancies complicated by placenta previa. It will help us in developing recommendations for patient's education during antenatal visits and to improve management of placenta previa.

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MATERIAL AND METHODS

This hospital based prospective study was conducted in the Department of Obstetrics and Gynaecology, Khyber Teaching Hospital, Peshawar from March 2007 to July 2008. The total number of 100 patients were included in this study who were diagnosed with placenta previa, of all ages and parity. Those patients who presented with placental abruption, genital tract injury, and bleeding disorders were excluded. The data was entered in a preformed proforma covering the detailed history including age, parity, period of gestation, last menstrual period, previous caesarean section, miscarriage, smoking and vaginal bleeding was taken and general physical and per abdominal examination was done. Diagnosis of placenta previa was confirmed by ultrasonography. The risk factors were identified and results were analysed using SPSS version 16. Approval of hospital ethical committee was taken.

RESULTS

A total of 8253 women had delivery in the study period, of whom 100 patients were diagnosed to have placenta previa. Mean age of the patients with placenta

previa was 30 ± 4.66 years. Table 1 shows the age distribution. Most of the patients(44%) were in the age range of 30-34 years. Table 2 shows distribution according to gravidity. Most of them (53%) were multigravida. Forty percent patients had previous caesarean section and 18% had previous miscarriage. The male babies were 58% while the female babies were 42% of the total.

DISCUSSION

Placenta previa complicated 1.21% of all deliveries which is higher than observed in other studies. This increased incidence could be partly explained by increase in maternal age and high gravidity observed in our population. In our study 64% of patients were of 30 years and above age group. Almost similar results were obtainedby Tuzovic L et al where out of 202 patients, 127(62.8%) were of 30 years and above age group[15]. Cleary-Goldman J et al have also reported that increasing maternal age is a significant risk factor for placenta previa development[16]. In our study out of 100 patients 14 were primigravida, 53 were multigravida and 33 were grand multigravida. Repeated endometrial/myometrial damage is the likely cause.

In our study 40% women had previous C/section. Malik AM et al reported in their study that 50% women had history of previous C/section[18]. However Hussain GA et al showed that previous c/section does not increase the risk of placenta previa[19]. In our study 18% patients had history of previous miscarriage which is comparable to that reported by Davood S et al[20]. Our study showed a slight predominance of male newborns. Ananth CV et al have reported almost same results[21]. Malik AM et al noted that 30% patients with placenta previa were smokers however no single case of smoking was found in our study.

Table 1: Distribution of cases of placenta previa by maternal age

Maternal age	%age of cases	Mean	SD±
<25 years	11%	30.09	4.66
25-29 years	25%		
30-34 years	44%		
>34 years	20%		

Table 2: Distribution according to gravidity

Gravidity	No. of patients & %ages of placenta previa
Primigravida	14(14%)
Multigravida	53(53%)
Grandmultigravida	33(33%)

CONCLUSION

Women above thirty years with history of multiparity, previous miscarriages and caesarean section carry a higher risk for placenta previa and should be counseled and managed accordingly. Early recognition of placenta previa with ultrasound during the second trimester and proper monitoring can minimize the possibility of poor outcome of sudden massive bleeding.

REFERENCES

1. Archibong, Ahmed SM. Risk factors, maternal and neonatal outcome in major placenta previa. Annal of Saudi Medicine 2001; 21: 245-47.
2. Lodhi SK, Khanum Z, Watoo TH. Placenta previa: the role of ultrasound in assessment during third trimester. J Pak Med Assoc 2004; 54: 81-83.
3. Sheiner E, Shoham-Vardi I, Hallak M, Hershkowits R, Katzm M. Placenta previa: obstetric risk factors and pregnancy outcome. J Malern Fetal Med 2001; 10: 414-49.
4. Konje JC, Taylor DJ. Bleeding in late pregnancy. In: James DK, Weiner CP, Steer PJ, Gonik B. High risk pregnancy: Management options. 3rd ed. New Delhi: Sounders 2006; 1259-75.
5. Fiaz AS, Ananth CV. Etiology and risk factors for placenta previa: an overview and meta-analysis of observational study. J Matern Fetal Neonatal Med 2003; 13: 175-90.
6. Getahun D, Oyelese Y, Salihu HM, Ananth CV. Previous casaerean delivery and risk of placenta previa and placental abruption. Obstet Gynecol 2006; 107: 771-78.
7. Johnson LG, Muller BA, Daling JR. The relationship of placenta previa and history of induced abortion. Int J Gynaecol Obstet 2003; 81: 191-98.
8. Shevell T, Malone FD, Vidaver J, Porter TF, Luthy DA, Comstock CH et al. Assted reproductive technology and pregnancy outcome. Obstet Gynecol 2005; 106: 1039-45.
9. Cnattingius S. The epidemiology of smoking during pregnancy: smoking prevalence, maternal obstetrics and pregnancy outcomes. Nicotine Tob Res 2004; 6: 125-40.
10. Koster EL, Dashe JS, Mcintire DD, Ramus RM. Association of maternal serum alpha fetoprotein with persistant placenta previa. J Matern Fetal Neonatal Med 2004; 16: 3-7.
11. Ahmad K, Malik A, Yousaf W. Anter\partum Haemorrhage due to placenta previa: An alaram to mother and fetus. Ann King Edward Med Coll 2000; 2: 156-59.

12. Salihu HM, Li Q, Rouse DJ, Alexander GR. Placenta previa: neonatal death after live births in United States. Am J Obstetrics Gynecol 2003; 188: 1305-59.

13. Zaman BS, Zubair A, Bhatti SS, Malik MZS. Effects of placenta previa on fetal and maternal morbidityand mortality. Ann King Edward Med Coll 2005; 11: 205-7.

14. Love CD, Wallace EM. Pregnancies complicated by placenta previa: what is appropriate management? Br J Obstet Gynaecol 1996; 103: 864-67.

15. Tuzovic L, Djelmis J, Ilijic M. Obstetric Risk Factors Associated with Placenta Previa Development: case-control study. Croat Med J 2003; 44: 728-33.

16. Cleary-Goldman J, Malone FD, Vidaver J, Ball RH, Nyberg DA, Comstock CH et al. Impact of maternal age on obstetric outcome. Obstet Gynaecol 2005; 105: 983-90.

17. Nasreen F. Incidence causes and outcome of placenta previa. J Postgrad Med Inst 2003; 17(1): 99-104.

18. Malik AM, Siddique S, Shah IA. Placenta previa: a study to determine responsible factors. Professional Med J 2007; 14(3): 407-10.

19. Hossain GA, Islam SM, Mahmood S, Chakraborty RK, Akhter N, Sultan S. Placenta previa and its relation with maternal age, gravidity and cesarean section. Mymensingh Med J 2004; 13: 143-48.

20. Davood S, Kazem P, Ebrahimi S. Selected pregnancy variables in women with placenta previa. Res J Obstet Gynecol 2008; 1(1): 1-5.

21. Ananth CV, Demissie K, Smulian JC, Vintzileos AM. Relationship among placenta previa, fetal growth restriction and preterm delivery: A population based study. Am Col Obstet Gynecol 2001; 98: 299-306.