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Retrospective study for outcome of placenta praevia

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ABSTRACT

Objective: the aim of this retrospective study was to evaluate the outcome of placenta praevia in relation to the number of previous caesarean section. the study is conducted in zawia teaching hospital in the period from January 2014 to December 2015 , the total number of deliveries during this period was 7,695 patients in which 77 patient was placenta praevia i.e. around (1%).maternal and neonatal data were obtained from medical records and the hospital data base system. the placenta praevia was managed by multidisciplinary team. **methods:** Data are collected are on patient age, parity, occupation, residence, presenting symptoms, gestation age at CS, degree of placenta as assessed by USS , history of previous CS or previous uterine surgery, previous history of curettage, associated complications , blood transfusion ,haemoglobin level after surgery, fetal weight and condition at delivery. the diagnosis was made on ultrasound and at surgery results: in total ,77 patient with placenta praevia were identified, placenta accrete found in 5 cases(6.49%),placenta increta in 2 cases(2.59%) and placenta percreta in 3 cases(3.89%). The higher incidence of caesarean section rate delivery today is strongly associated with abnormal placentation due to deficiency in decidua Basalis at the endometrial scar .the risk of morbidity increase with increasing number of caesarean section .in our study PP was found in 6 nulliparous patients (7.7% of total cases), while around 62 patient(80.51%)were multipara and 9 patient were grand multipara (11.68%) ,the highest number recorded in para-4patient. out of 77 cases of PP there were 5 cases with placenta accreta ,1 case increta and 3patient with placenta percreta. The number of patient with previous CS was 42 patient (54.54%)and those with no previous CS was 35 patient (45.45%) with increased incidence among those with previous one CS . caesarean hysterectomy was performed in 13 patients out of 77 patients ,10 patients have previous CS and the placenta was accreta in 5 patient , 1 patient increta, and percreta in 3 patients with highest incidence among previous 3 CS , the remaining cases of hysterectomy was done due to massive haemorrhage occurred intraoperative. **conclusion:** the placenta praevia with the increasing number of CS is associated highest maternal morbidity as CS hysterectomy and excessive blood loss and the need for blood transfusion. introduction: placenta praevia is identified as a placenta implanted partially or completely in the lower uterine segment, it occurs in 2.8:1000 of pregnancy worldwide ,PP represent significant clinical problems because the associated complication which could be happened as caesarean hysterectomy, premature delivery, and maternal and perinatal mortality the risk factors for placenta praevia includes previous uterine scar, maternal age over 35 years, smoking, infertility treatment, male gender, grandmultiparity, the risk of morbidly adherent placenta increase with each previous CS birth, this markedly increases the risk for massive haemorrhage at the time of attempted placental removal and it is the most common cause of caesarean hysterectomy. Placenta praevia increase dramatically with advancing maternal age ,in our study the highest incidence was in 30-40 years age patient.

Placenta previa and age of the patient

Age of the patient	number	Percentage
20-25years	8	10.38%
26-30years	15	19.48%
31-35years	27	35.06%
36-40years	21	27.27%
41years and more	6	7.79%

table 1: show the incidence of PP in relation to the age of the patients, the highest no between 31-35-y

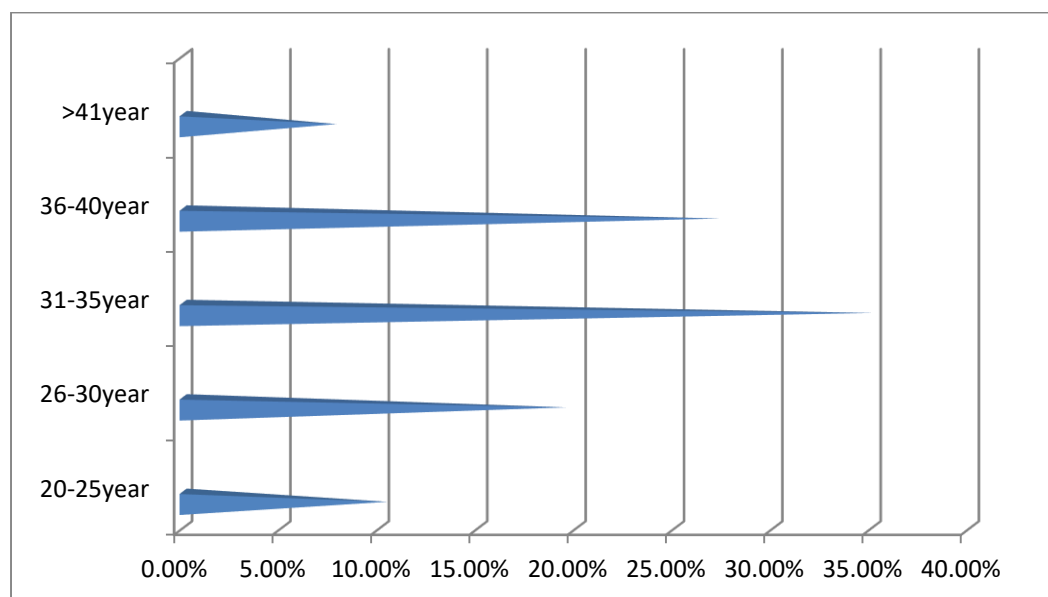


Figure (1): show incidence of placenta among different age group.

Placenta previa and residence :-

Area of residence	Number of patients	Percent(%)
Zawia	46	59.74%
Sabrata, Surman	19	24.67%
Yefren	2	2.5%
Algmel	3	10.38%
Agelat	3	10.38%
Zahra, Maya	2	2.5%
Tripoli	1	1.2%

of patient according residence.

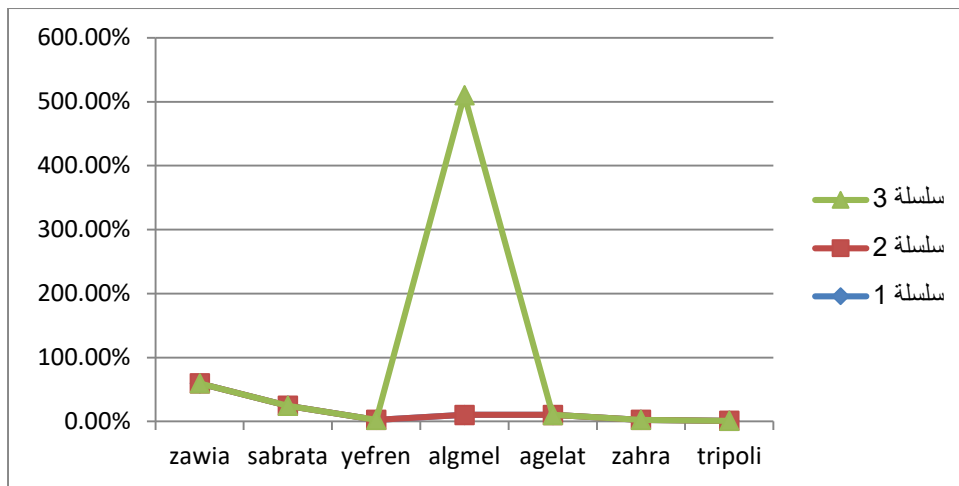


figure (10):the highest number of patients were from zawia.

Placenta previa and parity

Parity	Frequency(%)
PG	4(5.19%)
P1	12(15.58%)
P2	14(18.18%)
P3	14(18.18%)
P4	24(31.16%)
P5	4(5.19%)
P6	3(3.89+%)
P7	2(2.59%)

Table (2): outline frequency of PP according to the parity and the highest incidence was in P4 patient.

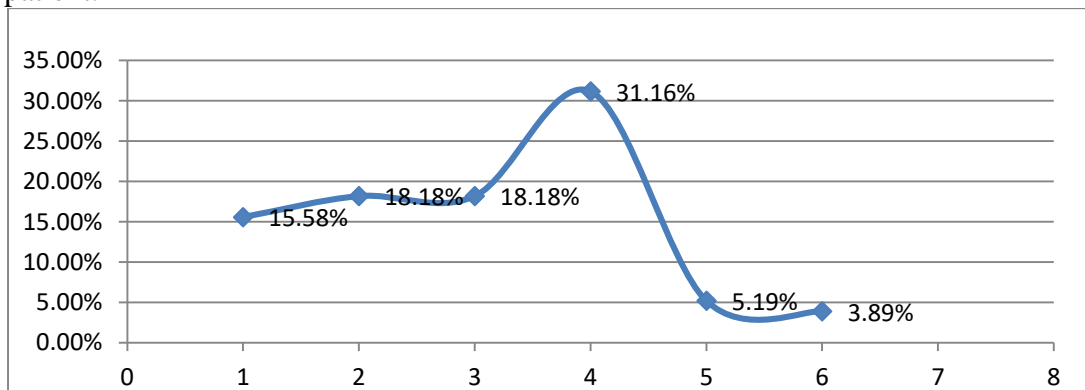


Figure (2)show that the placenta praevia increase with increased parity.

Placenta previa and gestational age

26week	1
27week	1
29week	1
30week	2
31week	1

32 week	5
33week	4
34week	9
35week	6
36week	14
37week	17
38week	8
39week	7
40week	1

Table (7): outline gestation age at delivery in PP

Gestation age	Number	Percent
Preterm	44 patients	57.14%
Term	33 patients	42.85%

Table(8): show comparison between term and preterm pregnancy.

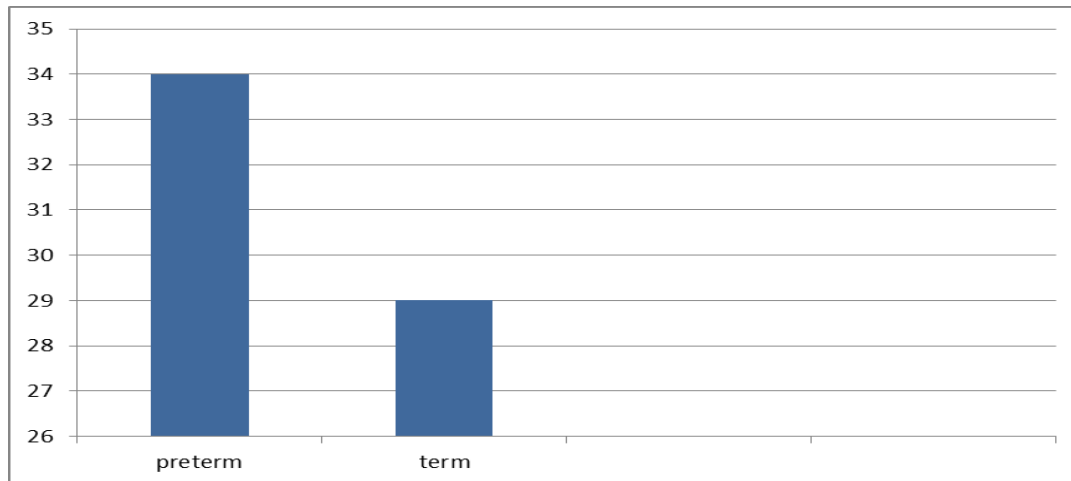


Figure (8): comparison between term and preterm pregnancy. the PP is associated with increased risk of pre term delivery and 20 patients out of 29 patient associated with vaginal bleeding.

Placenta previa and previous and non previous c/s

	No of patient	Percentage
previous CS	42	54.54%
Patient no previous CS	35	45.45%

Table (3): outline number of patient in relation to previous CS no previous CS history (45.45%) and those with previous CS history(54.54%)

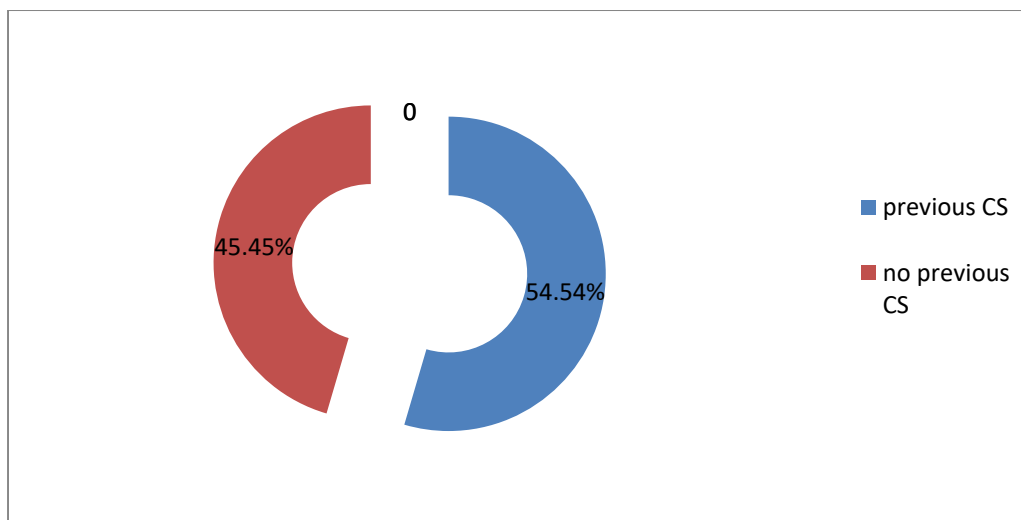


figure (3): comparing the patients with no previous CS history (45.45%) and those with previous CS history(54.54%)

Placenta previa and previous c/s

Number previousCS	Frequency of PP	Percentage
P1CS	16	20.77%
P2CS	9	11.68%
P3CS	9	11.68%
P4CS	8	10.38%
NO CS	35	46%

Table (4): outline the frequency of PP with no of previous caesarean delivery.

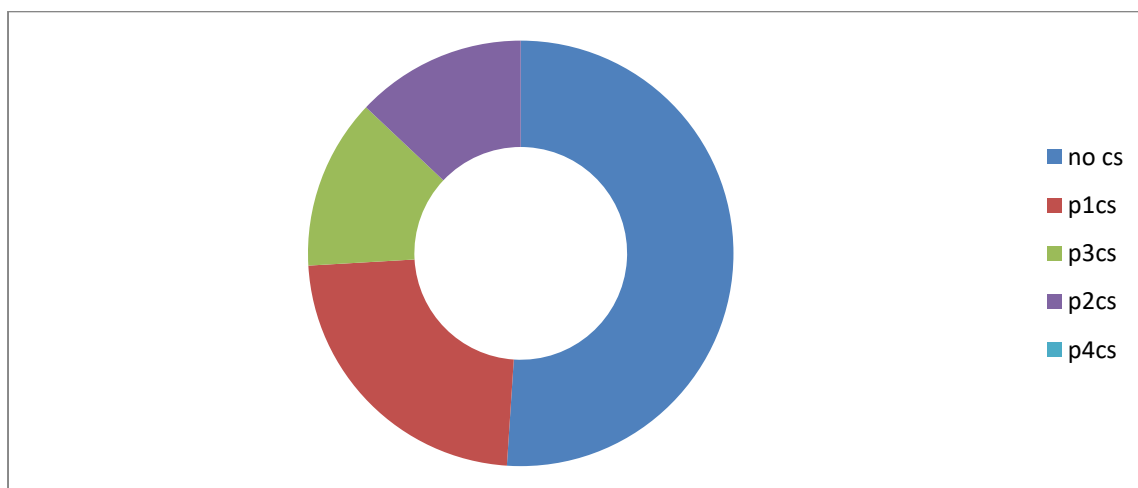


Figure (4): the highest number was in patient with p1 CS in comparison of the number of previous CS.

Placenta previa and Placenta accreta, placenta percreta, placenta increta.

Abnormal placentation	number	Frequency percent
Accreta	5	6.49%
Percreta	3	4.76%
Increta	1	1.28%

table 5: outline frequency of ,Placenta accreta, placenta percreta, placenta increta.

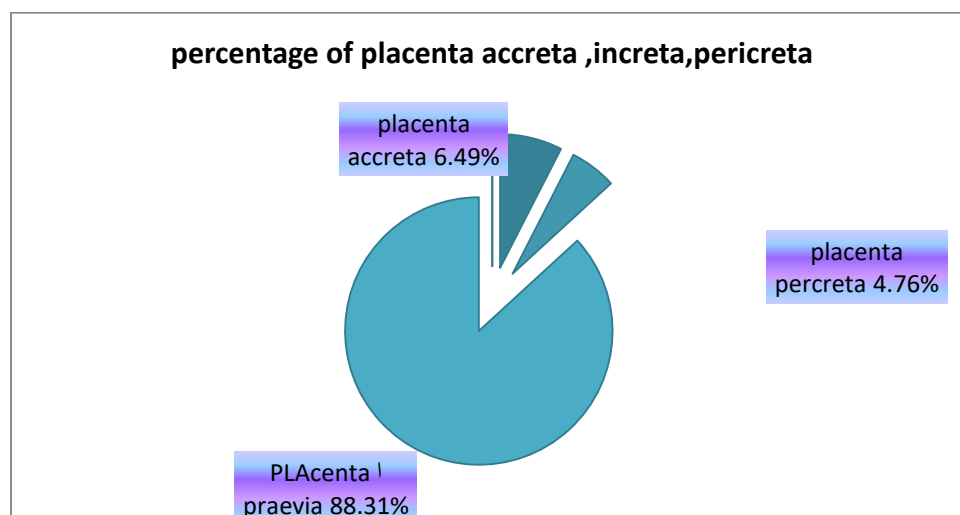


figure (5): show percentage of abnormal placentation. Placenta accreta, placenta percreta, placenta increta.

Placenta previa and hysterectomy

Number of caesarean	Number of hysterectomy	percent
2	1	10%
3	3	30%
4	4	40%
No caesarean	2	20%

table (6): outline frequency of hysterectomy based on number of previous caesarean deliveries .

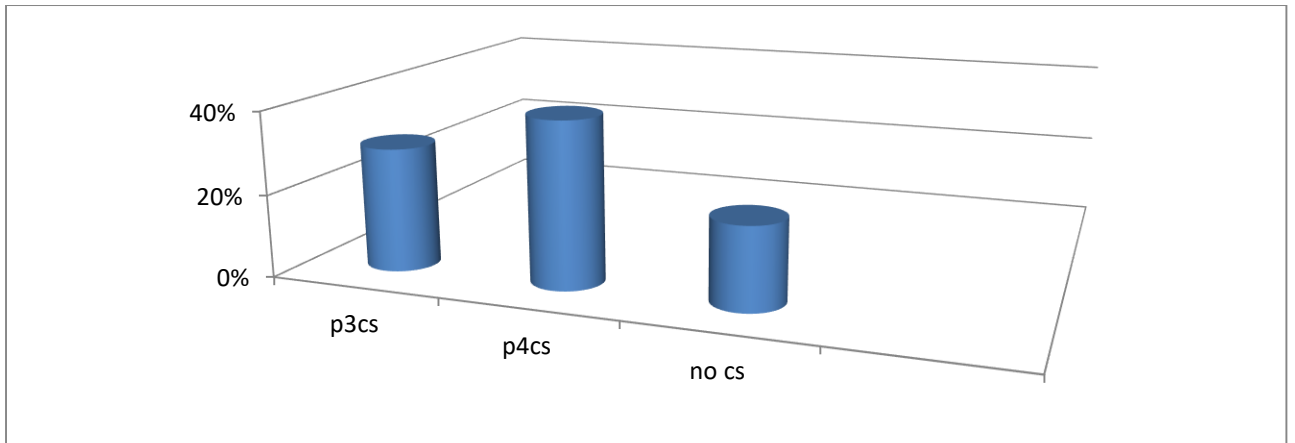


figure (6): Show the highest number of number of hysterectomy was in those with previous CS

Placenta previa and sex of the baby

Grade of placenta	Number of patient
Grade 1	3 (3,89%)
Grade 2	10(12.98%)
Grade 3	17(22.07%)
Grade 4	4(5.19%)

table (9): show the total number of patients which has blood transfusion in relation to grade of placenta praevia

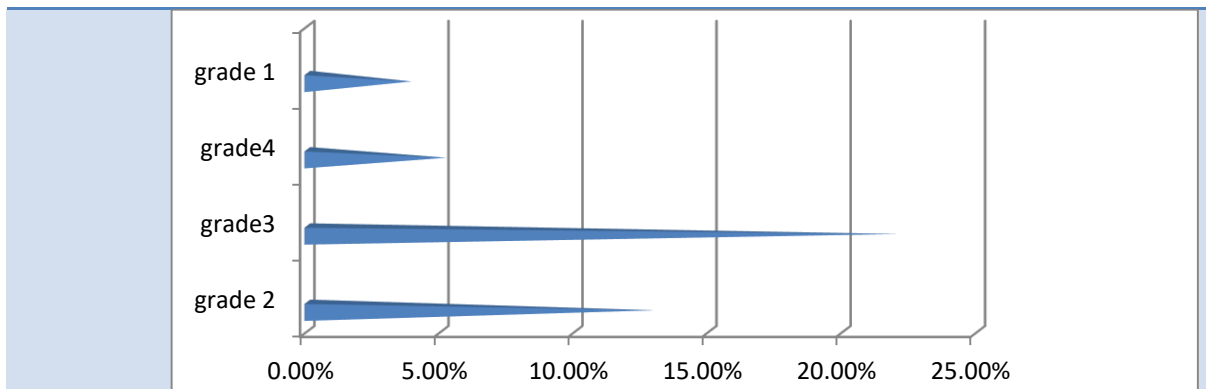


figure (9): the need for blood transfusion is increased with major grade of pp

Sex of the baby	Number	Percentage
Male	47	61.03%
Female	30	38.96%

Table (10): show the percentage of PP according to the sex the baby.

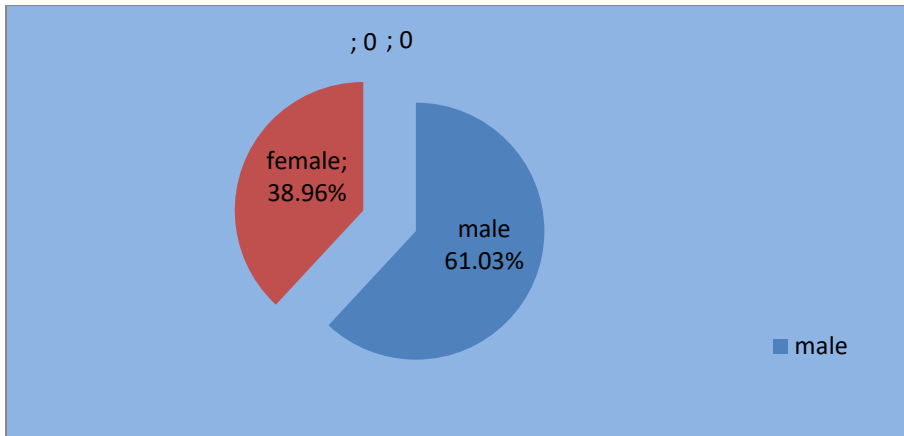


figure (10): show that PP is more associated with male fetus

Placenta previa and the weight of the baby at delivery.

Weight of the babies	Number	Percentage
1000 grams	2 baby	2.59%
1500grams	4 babies	5.19%
2000grams	15babies	19.48%
2500grams	23 babies	29.87%
3000grams	10babies	12.98%
3500grams	23 babies	29.87%
4500grams	1baby	1.5%

table (11): show the weight of the baby at delivery.

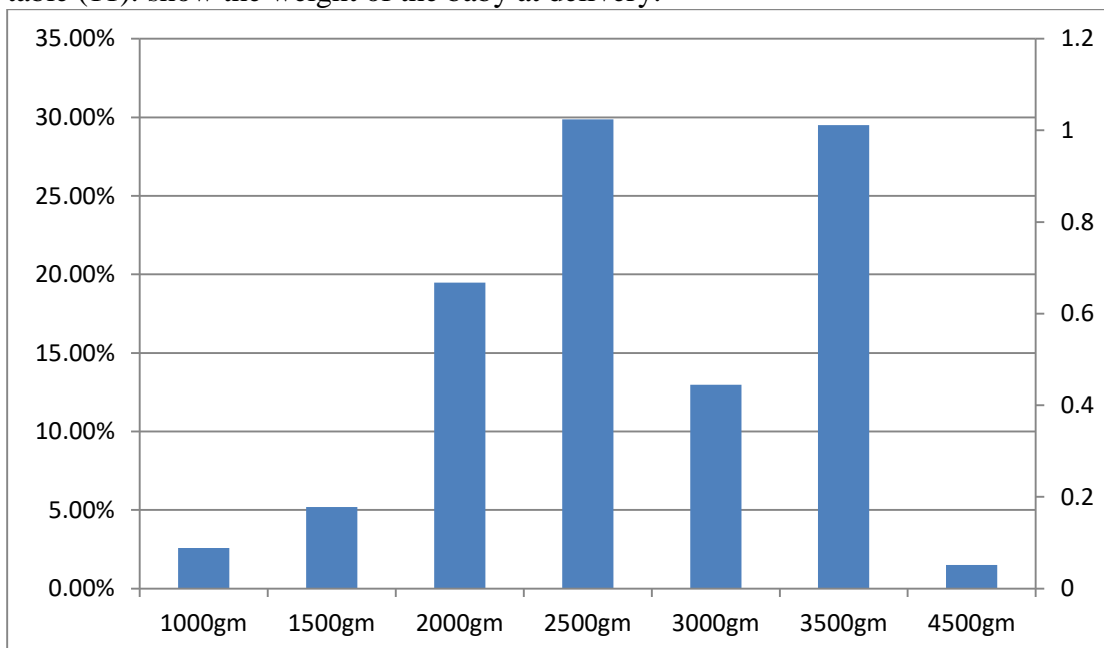


figure (11): 16 out of 63 babies are low birth weight i.e. around 25.39%.

Placenta previa and blood transfusion

preoperative	intraoperative	Hysterectomy
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5patient(15.6%)	27patient(84.3%)	8patient
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table (12): show the need for blood transfusion

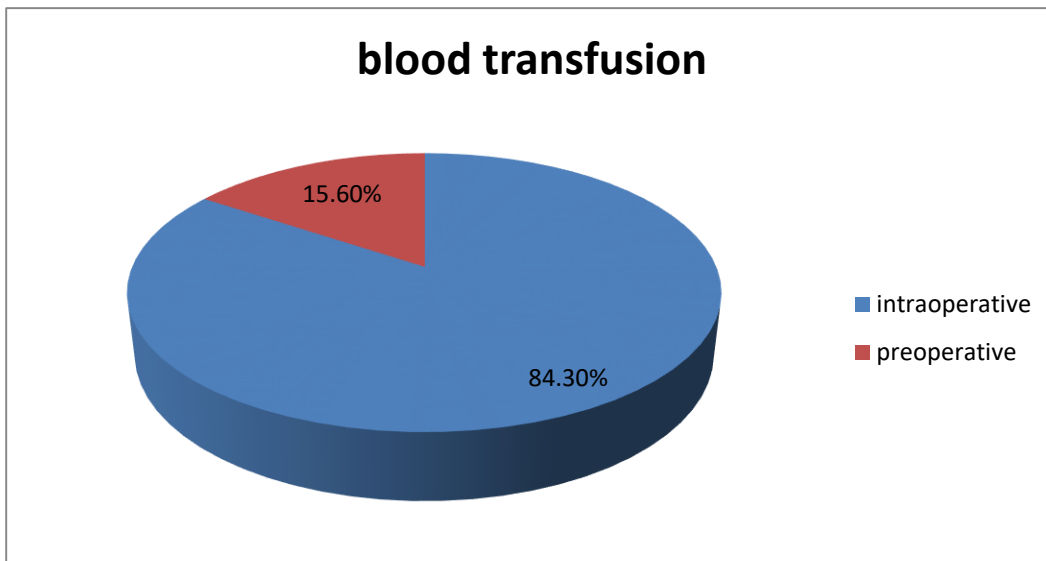


Figure (12)show rate of blood transfusion during pre and intraoperative period

Placenta previa and anaemia post-operatively

Total number of patients	77 patients	Percentage
Anaemia	49 patients	63.63%
Severe anaemia(less than 7)	6 patient	7.79%
No anaemia	22 patient	28.57%

table (13):percentage of anaemia after surgery as assessed by day 1 haemoglobin %.

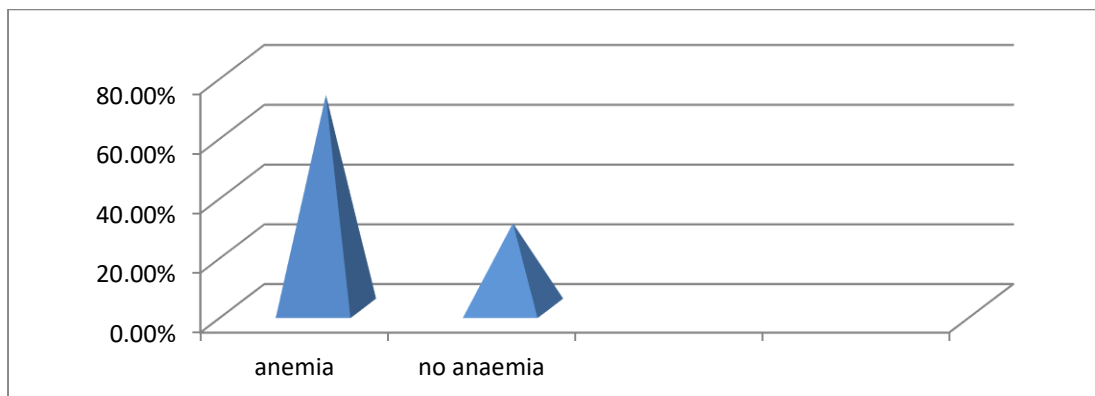


figure (13): show the percentage of anaemia among PP post-operatively.

Discussion:

in our study we find that maternal morbidity is increased by presence of Placenta accreta or Percreta which has described in other literatures , The risk of PA and PP was highest in those patients

with p3 CS as shown in figure(2).we also observed that the risk of PP was increased among P1 CS.in comparing patients with PP we find those with previous history of CS in 42 patient and those with no history

of CS in 39 patients which considered not statistically significant. Our study found a significant association between placenta praevia and risk of antepartum and postpartum hemorrhage. Women with placenta praevia had also higher incidence of anaemia as assessed by day one after surgery around 67.67% has anaemia with severe anaemia recorded in 7.79%. In our study blood transfusion was needed in 5 patient preoperatively for correction of anaemia and intraoperatively in 27 patient with 4-6 units needed for 8 patient in which hysterectomy was done and 2 patient has high dependency care admission. These findings are consistent with previous studies. The increased risk of postpartum hemorrhage in women with placenta praevia may be explained by the implantation of placenta in a previous scar which may go deep preventing placental separation. This may provoke severe hemorrhage during and after delivery because the lower segment does not constrict. This necessitates blood transfusion. Therefore, it is important that blood transfusions and the obstetric emergency care be readily available at any facility treating women with placenta

praevia. In contrast, previous studies have reported an association between alcohol consumption and smoking during pregnancy and PP. Unfortunately these factor are uncommon in Libya; thus our study may have lacked the power to assess these factors. PP is known to be associated with prematurity. However, there is debate about the effect of PP on fetal growth; some studies have suggested that pregnancies with PP are at risk of low birth weight and a low Pagar score. Some reports have shown high neonatal morbidity associated with PA. On the other hand, other studies did not observe adverse neonatal effects in such cases. In our study out of 44 patient delivered pre term 33 patient associated with one episode or recurrent episode of vaginal bleeding. In conclusion, in view of the increased risk of maternal morbidity, PA should be excluded in every case of PP, especially in those with risk factors such as previous uterine surgery, high parity, and advanced maternal age. If available, a second consultant should share in the surgery for PA. Elective delivery of patients with PA at 36 weeks should be considered unless there is maternal risk.

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