

**ORIGINAL ARTICLE****Placenta Praevia: Preach and Perception**

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**ABSTRAK**

Plasenta praevia adalah masalah semasa hamil yang boleh mendatangkan komplikasi terhadap ibu dan janin. Penyelidikan yang dijalankan ini bertujuan untuk menilai pengetahuan tentang plasenta praevia dikalangan wanita hamil. Kajian keratan rentas dijalankan di Hospital Ipoh, Perak dikalangan 323 orang pesakit antenatal and postnatal. Parameter sosio demografi (seperti umur, keturunan, bilangan kandungan, pekerjaan, dan tahap pengajian), dan sejarah plasenta praevia telah dikaji dalam hubungkait dengan tahap pengetahuan dan tabiat terhadap plasenta praevia. Seramai 20 orang (6.2%) dari 323 wanita tersebut mengidap atau mempunyai sejarah plasenta praevia. Tiga diantara mereka mempunyai sejarah and 17 lagi mengidap plasenta praevia ketika itu dengan prevalens sebanyak 5.3%. Markah purata pengetahuan yang diperolehi oleh peasakit adalah 11.8 menandakan tahap pengetahuan yang rendah. Hanya pekerjaan, tahap pendidikan dan sejarah plasenta praevia didapati mempunyai hubungkait dengan tahap pengetahuan tentang plasenta praevia diantara semua pesakit obstetrik. Terdapat hubungkait yang ketara mengenai tabiat pesakit yang mengidapi plasenta praevia sekarang serta pesakit yang telah mempunyai sejarah plasenta praevia terhadap tahap pengetahuan mengenai plasenta praevia ( $p=0.037$ ,  $<0.05$ ). Sebagai rumusan, pengetahuan serta tabiat terhadap plasenta praevia dikalangan pesakit obstetrik di Hospital Ipoh lebih baik dikalangan mereka yang berpendidikan tinggi, mempunyai pekerjaan 'kolar putih' dan pesakit yang mempunyai atau pernah mengidap plasenta praevia.

*Kata kunci:* plasenta praevia, caesarean section, hemoraj, pendarahan vagina

**ABSTRACT**

Placenta praevia is a known obstetric condition that causes complications to mother and fetus. This study was done to evaluate the knowledge of placenta praevia amongst the obstetric patients. A cross sectional study was carried out in Hospital Ipoh, Perak among 323 antenatal and postnatal patients. Socio-demographic parameters (ie age, race, parity, occupation, educational level) and history of placenta praevia were studied in relation to level of knowledge and attitude towards placenta praevia. Twenty (6.2%) from 323 women had current or past history of placenta praevia. Three had history of placenta praevia while 17 had current placenta praevia with prevalence of 5.3%. The mean score of knowledge achieved by patients was 11.8 which indicated overall poor knowledge. Occupation, level

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of education and history of placenta praevia were found to have a relationship with level of knowledge regarding placenta praevia in all obstetric patients. There was a significant relationship between attitude of patients with current and history of placenta praevia to level of knowledge regarding placenta praevia. ( $p=0.037$ ,  $<0.05$ ). In conclusion, the knowledge and attitude towards placenta praevia among obstetric patients in Hospital Ipoh was better in those who had higher education status, white-collar occupation and currently pregnant with placenta praevia.

**Key Words:** placenta praevia, caesarean section, haemorrhage, vaginal bleeding

## INTRODUCTION

In early pregnancy the placenta may attach low in the uterus and covers a part or all of the entrance to the cervix. This attachment can be seen in early ultrasound scans and called a low-lying placenta. In most cases, when the growing uterus enlarges, the placenta is carried upwards and majority does not cause any problem. However some remain in the lower segment (10%) of the uterus to be called placenta praevia (RCOG 2005).

The predisposing factors to placenta praevia are multiple gestation (Francois et al. 2003) previous uterine scar (caesarean and abortion) (Ananth et al. 1997), increased parity, uterine structure anomalies, increased age (more than 35 years old), previous history of placenta praevia, infertility treatment, smoking (Chelmow et al. 1996) and low socio-economic status (Sheiner et al. 2001). Placenta praevia may present with painless vaginal bleeding during pregnancy or other problem such as abnormal lie. Moreover, in chronic cases patients may have anaemia and present with anaemic symptoms resulting from chronic bleeding (Lam et al. 2000).

There are known complications of placenta praevia such as sudden vaginal bleeding, risk of caesarean section, pre-term labour, prone to a repeat placenta praevia in the next pregnancy, as well as hysterectomy with life threatening bleeding, risk in developing morbidly adherent placenta (Oyelese & Smulian 2006) in future pregnancies to the extent of maternal and

fetal mortality (Hamisu et al. 2003).

Due to possibility of such complications, it requires most of these patients to be admitted to a hospital with adequate facilities as a prevention and anticipation to possible problems. However, this is not always easy and not possible as the women and her family may not comprehend the medical consequences of her problem. Due to the paucity of data available on the knowledge of placenta praevia, this study was carried out to evaluate the knowledge and attitude of obstetric patients regarding placenta praevia.

## METHODS

A cross sectional study was carried out in Hospital Ipoh, Perak Darul Ridzuan from 26th March to 15th April 2007. All the antenatal and postnatal patients in class 2 and 3 obstetric wards in Ipoh Hospital were included in the study. Patients from labour room and high dependency ward were excluded. There was a total of 323 respondents during the survey. Data was collected manually by using purposive or conducive sampling method with a non-probability sampling.

Definition:

### 1. Level of knowledge

- Good : respondents answer at least 50% questions regarding knowledge of placenta praevia correctly.
- Poor : respondents answer less than 50% questions regarding knowledge of pla-

- centa praevia correctly.
2. Educational level
    - Primary : UPSR, equivalent, or below
    - Secondary : STPM, matriculation, equivalent or below
    - Tertiary : University, Colleges or equivalent
  3. Occupation
    - Professional (white collar): those who perform tasks which are less 'physically laborious'. Such as doctors, airline pilots, IT professional, or lawyer
    - Non professional (blue collar): those who perform manual labour. Such as factory workers, building and constructional trades, mechanical work, maintenance or technical installation.
  4. Level of Attitudes
    - Good : respondents answer at least 50% questions regarding positive attitude of placenta praevia correctly.
    - Poor : respondents answer less than 50% questions regarding positive attitude of placenta praevia correctly.

Socio demographic parameters (ie age, race, parity, occupation, educational level), history of placenta praevia were studied in relation to knowledge and attitude towards placenta praevia. The collected data was analysed by statistical analysis and category variables were done with chi square-test. A p value of <0.05 was considered to be statistically significant.

## RESULTS

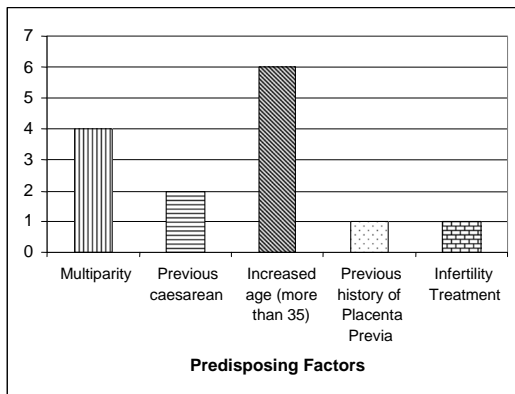
There was a total of 323 respondents included in the study. Out of these, twenty women (6.2%) had current or previous history of placenta praevia. Seventeen (5.3%) came to hospital with presence of

placenta praevia. Most of the respondents (82.4%) were less than 35 years old. The majority of the women were Malay (65.6%), followed by Chinese (15.5%), Indian (14.2%) and others (Table 1). Most women were multiparae (52.9%) and were housewives (45.8%). The majority was educated until secondary school (76.5%) with a minimal from primary school (9.6%).

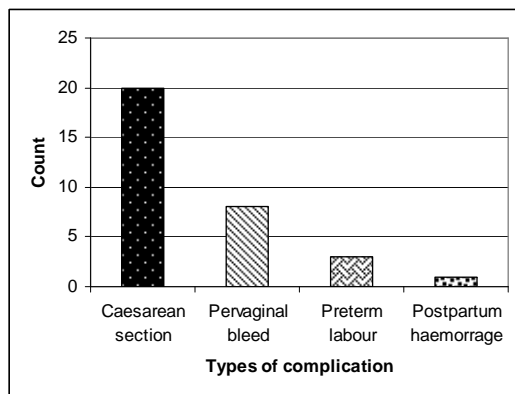
Among women with placenta praevia, the prevalence was highest amongst Malays (80%). Sixty percent of those with placenta praevia were multiparae while the remaining were grandmultiparae (20%) and primigravidae (20%). Increased age was the main predisposing factor found among patients with placenta praevia followed by multiparity, previous caesarean, previous history of placenta praevia and infertility treatment (Figure 1). All women with placenta praevia had caesarean section (100%). Eight had history of vaginal bleeding during current or previous pregnancy. Pre-term labour complicated three women with placenta praevia and only one had postpartum haemorrhage. There were no fetal mortality and morbidity (Figure 2).

**Table 1:** Demographic data of obstetric patients and patients with placenta praevia

Parameters	Number of patients n = 323 (%)	Placenta praevia n = 20 (%)
<b>Age</b>		
less than 35 years	266 (82.4)	10(3.8)
35 years or more	57(17.6)	10(17.5)
<b>Race</b>		
Malay	212(65.6)	16(80)
Chinese	50(15.6)	1(5)
India	46(14.2)	2(10)
Others	15(4.6)	1(5)
<b>Parity</b>		
Primiparae	119(36.8)	4(20)
Multiparae	171(52.9)	12(60)
Grandmultiparae	33(10.3)	4(20)
<b>Occupation</b>		
Housewife	148(45.8)	-
Blue collar job	99(30.7)	-
White collar job	76(25.5)	-
<b>Education level</b>		
Tertiary	45(13.9)	-
Secondary	247(76.5)	-
Primary	31(9.6)	-



**Figure 1:** Distribution of the predisposing factors of placenta praevia



**Figure 2:** Distribution of types of complication with placenta praevia.

The level of knowledge among obstetric patients was distributed almost evenly among those with good (48.9%) or poor (51.1%) knowledge. There were five women (25%) in the placenta praevia group with poor knowledge (i.e. less than two correct answers for four questions). The questions were: the need of haematinics during pregnancy, prohibition of sex during pregnancy, the need to admit to hospital when advised and the need to remain in hospital for a long period. Fifteen patients (75%) had good knowledge. Eight women (40%) had poor attitude as they ignored at least two of the four advices given, while 12 of them (60%) followed ( $p$  value = 0.037).

There was a significant relationship

between patient's educational backgrounds to the level of knowledge regarding placenta praevia (Table 2). With a history of placenta praevia in their previous pregnancy, their knowledge regarding the same problem had an increment, as shown in Table 2. There was also a significant difference between occupation and level of knowledge regarding placenta praevia (Table 3), as the knowledge was higher among those of 'white collar' jobs as compared to 'blue collar' and housewives. There was a significant relationship between increased age and incidence of placenta praevia (Table 1) as it was higher amongst those of age 35 years old and above ( $p < 0.05$ ).

However there were several non-significant findings during the study on obstetric patients in Hospital Ipoh including no relationship between level of knowledge and maternal age ( $p = 0.54$ ), parity ( $p = 0.91$ ), race ( $p = 0.052$ ) and complication of placenta praevia ( $p = 0.79$ ).

## DISCUSSION

The increasing incidence of caesarean sections and maternal age globally predisposed more to the incidence of placenta praevia in the obstetric population (Ikechebelu & Onwusulu, 2007). The prevalence of placenta praevia in the current study was higher (6.2%) than seen in previous statistics of Hospital Ipoh (2002-1.4%, 2003-1.26%, 2004-1.23%, 2005-0.91%). This might be due to short duration of the study with smaller number of patients including the exclusion of the first class and high dependency ward patients. Malay women were seen to be the majority having placenta praevia which was likely due to more Malay women being obstetric clients in Hospital Ipoh.

As shown in the current and previous study several predisposing factors were recognised for placenta praevia, which were multiparity, previous uterine scar (caesarean section), increasing maternal age, previous history of placenta praevia,

**Table 2:** Educational background and history of placenta praevia versus level of knowledge regarding placenta praevia

Knowledge	Level of education			History of Placenta praevia	
	Primary	Secondary	Tertiary	No	Yes
Poor knowledge	22	128	15	160	5
Good knowledge	9	119	30	143	15
Total	31	247	45	303	20
<b>p</b> value		0.005		0.016	

**Table 3:** Occupational background and level of knowledge regarding placenta praevia

Knowledge	Occupation			Total
	White Collar	Blue Collar	Housewife	
Poor Knowledge	28	55	82	165
Good Knowledge	48	44	66	158
Total	76	99	148	323

$p$  value = 0.018

and infertility treatment (Faiz et al. 2003). In this study, the commonest predisposing factor of placenta praevia was increasing maternal age (30%, 6 cases), followed by multiparity (20%, 4 cases) as shown in Figure 1. All of the respondents with placenta praevia in the study had caesarean section (20 out of 20 patients with placenta praevia) with a range of complications (Figure 2) as had been reported by other studies (Anath et al. 1997) with no other detrimental complication of hysterectomy as experienced by others (Choi et al. 2008).

There was slightly more obstetric patients with poor knowledge regarding placenta praevia (ie mean score of knowledge is 11.18, full marks of the knowledge are 23). This might be due to most of the patients in obstetric wards of Hospital Ipoh have low to moderate educational background as shown in Table 2. Also, Hospital Ipoh receives patients from suburban areas like Grik, Chemor, Sungai Siput and aborigine settlement.

The knowledge of placenta praevia was affected by current or previous history of placenta praevia. According to the study,

patients with current or previous history of placenta praevia had higher knowledge compared to those who did not have history of placenta praevia. Seventy five percent of those women with current or previous history of placenta praevia had good knowledge while only 47.2% of patients without history of placenta praevia had good knowledge about placenta praevia (Table 2). This may be contributed to the counseling by doctors when they were diagnosed to have placenta praevia or from their previous experience. The women who had placenta praevia also took the initiative to know more about placenta praevia by surfing the internet, reading books and medical articles.

The background level of patients' education also affected the knowledge about placenta praevia. It was seen that those who had a higher educational status had higher knowledge about placenta praevia (Table 2) which may due to a higher interest level with extra knowledge, as they understood more readily.

The knowledge of placenta praevia was also related to the occupation of the respondents. White-collar workers have

higher knowledge about placenta praevia than blue-collar workers and housewives ( $p=0.018$ ). Some 'white-collar' workers came from the medical field like nurses, paramedics who were more accessible to information about placenta praevia.

Most respondents in the study with placenta praevia who had good knowledge about placenta praevia also had good attitude for preventing the complications, which included admission for a longer duration in a well equipped hospital once diagnosed to have placenta praevia. This was practiced in other countries as reported earlier (Love et al. 2004). Those who had higher knowledge of placenta praevia realised the danger of its complications. Compliance to doctor's advice (eg prohibition of sexual intercourse and compliance to haematinics) and medication to ensure their health and fetuses. All had further support from their husbands rendering them to have a harmonious mind despite the long stay in hospital. Experiencing complications of placenta praevia did not show significance to good knowledge most likely because only a small proportion had experienced the problem.

In general further education and exposure on placenta praevia with its possible complications should be emphasised to obstetric patients, to ensure proper attitude towards the medical advice given and be compliant to medication in order to achieve optimum care for women with placenta praevia. Therefore, efforts to improve the knowledge regarding placenta praevia through quality improvement programs are very important in order to prevent avoidable complications such as fetal mortality and maternal death secondary to uncontrolled bleeding.

## CONCLUSION

The knowledge and attitude towards placenta praevia among the obstetric patients in Hospital Ipoh was better in those who had higher level of education, in 'white-collar' occupation and those with

current history of placenta praevia.

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