PLACENTAL ABRUPTION; FREQUENCY OF ITS RISK FACTORS

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ABSTRACT... Objective: To determine the frequency of risk factors associated with Placental Abruption. **Design:** Prospective and Observational Case Study. **Setting & duration:** Department of Obstetrics & Gynecology, Liaquat University of Medical and Health Sciences Hyderabad, for a period of 15 months from January 2006 to March 2007. **Patients & methods:** All the antenatal patients/ pregnant ladies admitted to labour room /ward and delivered during the above mentioned period were scrutinized and those suffering from Abruptio Placentae were entered into this study by completing a proforma for each patient. The risk factors studied were; Age of Patient, Parity, past history of abruption, rural belonging, history of trauma, association with diabetes, hypertension, smoking and anemia. Results were analyzed on SPSS version 10. **Results:** A total of 100 patients suffering from placental abruption were studied during 15 months period. The commonest age group was 30 years (47%). Majority (54%) was multiparous, 66% belonged to rural population and among these, 2/3 were unbooked. Only one patient gave history of trauma. 5 patients had history of previous abruption. History of diabetes was present in only one patient, whereas 38% were hypertensive. Only 4 patients gave positive history of smoking. Anemia was the single most common factor present in 83% ladies. **Conclusions:** Age around 30 years, multiparity, hypertension, presence of anemia, rural belonging and previous abruption are the risk factors for placental abruption as per this study. No association of abruption has been found with trauma, diabetes or smoking in this study.

Key words: Abruptio placentae, Risk factors

INTRODUCTION

A placental abruption or Abruptio placenta is a complication of pregnancy and the most common pathological cause of late pregnancy bleeding. It refers to abnormal separation of placenta after 20th week of gestation and prior to birth[1].

There are various risk factors associated with this condition; some of the important factors are maternal hypertension, cigarette smoking, alcohol consumption, maternal trauma, maternal age of 35 years or old, and previous placental abruption etc[2,3].

The aim of this study is to find out the frequency of various risk factors that are associated with placental abruption. Once the common risk factors are known, these can be evaluated in pregnant ladies presenting in antenatal clinic; hence detected early and managed appropriately in order to avoid expectant complication.

PATIENTS AND METHODS

All booked and unbooked antenatal patients presenting in antenatal clinic or in emergency with signs and symptoms of Abruptio placentae were entered into this study.

INCLUSION CRITERIA

All pregnant women between 20 weeks to term with complain of abdominal pain/ backache and bleeding per vagina were included in this study.

EXCLUSION CRITERIA

Pregnant women having bleeding per vagina due to causes other than abruption like placenta previa, ruptured uterus, cervical polyp etc. were excluded from study.

A detailed history of these patients was taken, examination performed and findings entered into proforma. Relevant investigations were sent to laboratory and ultrasound examination of abdomen and

pelvis was requested.
After compiling results, statistical analysis was carried out by using software SPSS version 10.

RESULTS

Figure-1. Shows different ages and number of patients in percentage presented with abruptio at these age groups. The peak age was 30 years and around 90% were between 25 & 35 years.

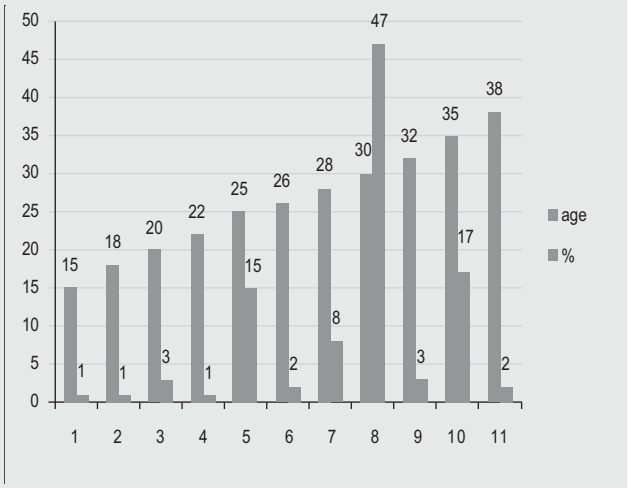
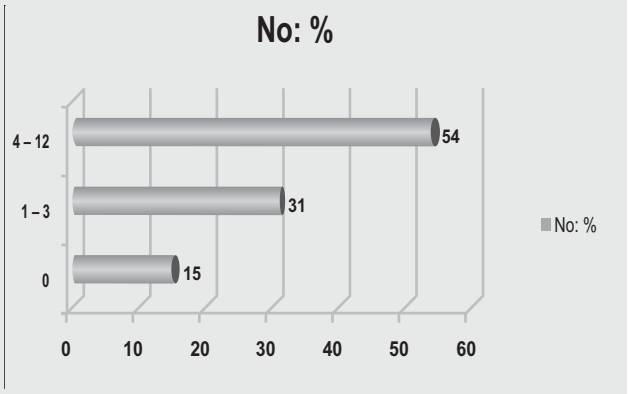


Figure-2. Showing Parity groups and their percentage. 54% of these patients have high parity i.e 4 and more than 4; up to 12 children.



Only 4 patients were smoker, where as majority were non-smoker, hence it could not be confirmed as a risk factor. Only one patient had positive history of trauma, which is insignificant and also one patient was diabetic in this study, hence diabetes could not be confirmed as risk factor.

Figure-3. Shows two groups of patients Rural and Urban and their status whether booked or unbooked. Majority of patients (60%) were unbooked mainly from rural group (44%).

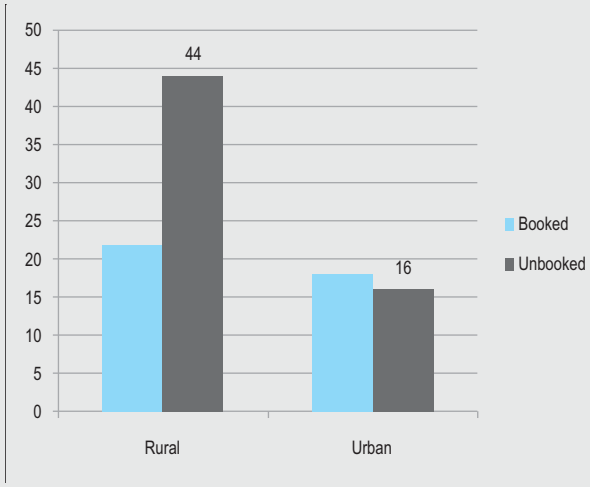
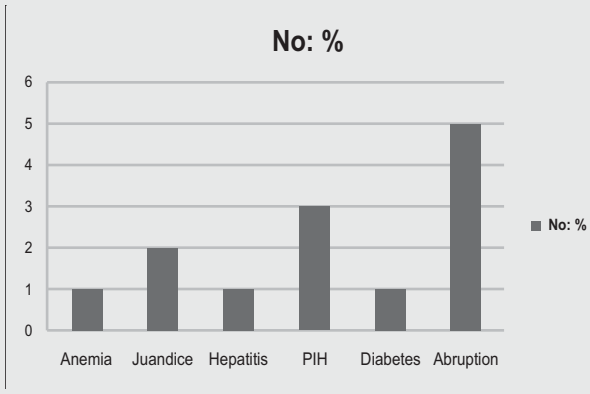


Figure-4. Showing past medical history present in 13 patients. 5 patients had past history of Placental abruption hence a risk factor.



DISCUSSION

During the period under study, a total of 2760 pregnant ladies were delivered. Out of these 100 patients were diagnosed as having placental abruption, making an incidence of 3.62%.

Numerous risk factors have been mentioned in the literature. The risk factors evaluated in this study are discussed here.

Figure-5. Shows patients having hypertension. 38% were hypertensive, which is a significant number, hence a risk factor.

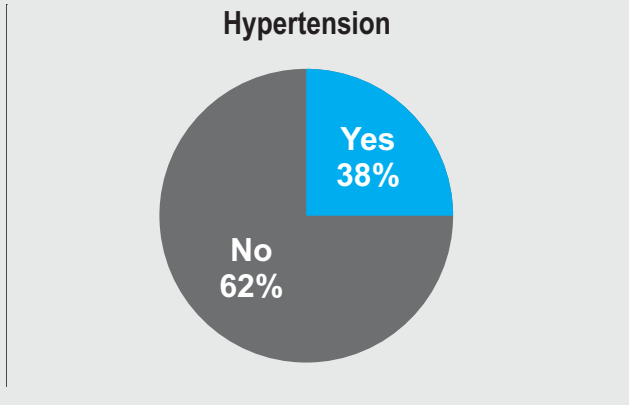
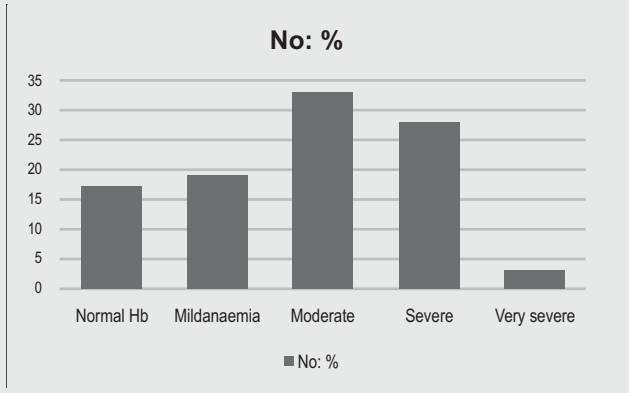


Figure-6. Chart showing number of patients in different grades of anemia. Anemia was the single most common factor present in 83% of Patients.



The peak age in this study was 30(47%) years and 92% of patients were between 25—35 years of age (Fig:1), this is also confirmed by local studies[4,5]. Theiba et al, found that abruptio was more frequent in 30-34 year old women[6]. Whereas in other non-local studies maternal age considered as risk factor is more or equal to 35 years[7-10].

In this study 54% have 4 - 12 children (Figure 2). Here we have to consider high parity as four or more children rather than five as mentioned in the literature[6,7,11-13]. Therefore this study corresponds to other studies and confirms that multiparity is also a risk factor for abruptio placentae[8,9,14].

(60%) cases were unbooked and majority of these (44%) belonged to rural areas. Overall 66% patients belonged to rural areas (Figure3). Local studies[11,15,16] show that majority of patients remain unbooked thus result in high incidence and complication rate whereas study from USA[17] shows only 22% unbooked. This confirms that majority of our patients do not avail the facility of antenatal clinics and they become exposed to multiple risk factors, which could have been detected and prevented in antenatal clinics.

Trauma could not be confirmed as a significant risk factor leading to abruptio in this study, as there was only one patient (1%) with history of trauma. Reports in literature correlate abruptio with physical violence in pregnancy[18] and pregnant women involved in severe accidents[19]. This could not be confirmed in this study, the reason could be that patients suffering from trivial type of accidents do not take notice of it and also that patients may not have disclosed of any physical violence received.

Diabetes also could not be confirmed as a significant risk factor leading to abruptio in this study. Only one patient was diabetic, although 10 patients had positive family history of diabetes. This factor is also not being favored as a risk factor in the literature except few studies[8,20,21].

5 patients (38.46%) had past history of abruption (Figure 4). Ananth et al[22] and Karegard M[23] conclude in their study that abruption was more than ten times more common in pregnancies preceded by a pregnancy with abruption. This confirms that previous abruption is a risk factor for subsequent abruption[10,18].

A total of 38 patients (38%) had hypertension (Figure5). 31 patients (31 %) had positive family history of hypertension and out of these, half patients i.e,16 had hypertension & the other half, did not have hypertension. This factor is an important factor present in many patients and has been much discussed in the literature. Some studies have shown only chronic hypertension as a definite risk factor. Whereas other studies include both i.e, pregnancy induced (PIH) as well as chronic hypertension as the risk factor[6-8,10-12,15,18,22,23]. Therefore this

factor is definitely a risk factor for abruptio placentae.

Only 4 patients (4%) were smokers, in this study, hence this factor could not be confirmed as a risk factor in this study. However much of the literature favor this factor as a risk factor[7-11,21,24-26]. The reasons for this factor not being frequent in our population is that majority of our women fall in non-working group, are house wives and due to social and cultural reasons they do not smoke. If at all they smoke, they smoke Hukka which is also not that common.

Although clinically all patients were anemic but according to hemoglobin percentage 83% were anemic with Hb < ll gms% (Figure6). This is a single most common factor present in majority of patients and may be considered as a risk factor for abruption. This coincides with other studies in the literature[12,22].

CONCLUSIONS

The risk factors for abruptio placentae in this study are Age 30 years or above, Multiparity, Hypertension, Anemia and previous abruption. Patients belonging to rural areas and unbooked patients are more exposed to the risk of complications of pregnancy, particularly abruptio placentae. No association has been found with trauma, diabetes or smoking in this study.

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Article received on: 19/01/2012 Accepted for Publication: 20/02/2012 Received after proof reading: 10/05/2012

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Article Citation:
Memon NY, Mumtaz F, Farooq S. Placental abruption; frequency of its risk factors. Professional Med J Jun 2012;19(3): 370-374.

I disapprove of what you say, but I will defend to the death your right to say it.

Voltaire