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Original Research Paper

Gynaecology

ANTICIPATING PRETERM LABOUR-ON THE BASIS OF DEMOGRAPHIC PARAMETER

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ABSTRACT Preterm labour leading to birth of preterm premature babies leading cause of perinatal mortality. Therefore it is very important to anticipate the factor which may lead to preterm labour. This study was done on 200 antenatal female. Data collection done in the form of detailed history during antenatal visit. Results showed mean age of preterm labour and PPROM is 25.27 years and incidence of preterm labour was 36% in primigravida and 64% in multigravida

KEYWORDS : Preterm Labour, Antenatal Visit, Demographic Profile

INTRODUCTION : Preterm birth is the leading cause of new born death (Babies in the first 4 weeks of life) and the second leading cause of death afterPneumonia in children under 5 years.

The traditional criteria for preterm labour is persistent uterine contraction accompanied by cervical progressive change in form of dilatation of 1 cm or more, effacement of 80% or more[1]. Method to detect preterm labour at early stage include ultrasound examination of the cervix and detection of biochemical markers of preterm labour.In majority of cases the precise causes of labour before term are not known. Some conditions that predispose to preterm labour and deliviery are –

Amniotic fluid infection: 1/3rd cases of preterm delivery are associated with chorio-amniotic membrane infections. These cases are linked with preterm rupture of membranes as well as with idiopathic preterm labour.

Common causes of preterm labour are -

- Malformation of foetus and placenta
- Over distended uterus – hydroamnios
- Multiple pregnancy
- Foetal death
- Cervical incompetence and uterine anomalies
- Faulty placentation (abruption, placenta praevia)
- Serious maternal disease
- Trauma, accident, external version, amniocentesis

Other factors are Poor maternal nutrition, poor antenatal care, physical and maternal stress, short stature.

MATERIAL AND METHOD: The above study was conducted in Department of Obs and Gyn. at MRA medical college Ambedkarnagar and Upper India Sugar Exchange Maternity Hospital GSVM medical college Kanpur and Department of obs-Gynae,DrRML institute of medical science,Lucknow. The study comprised of a total 200 pregnant women, out of which 100 were in study group and 100 in control group.

INCLUSION CRITERIA : Singleton pregnancy, gestational age less than 28 weeks, normal pre-pregnancy BMI, no history of genito-urinary infection. Previous history of preterm labour, history of threatened abortion. Patient's with bad obstetric history.

EXCLUSION CRITERIA : Multiple gestation, gestational age greater than 28 weeks completed at the initial perinatal visit, obese female, history associated infection and inflammation, hormone use, metabolic syndrome, cardiovascular disease, medication use (Particular statins fibrites and niacin)

DATA COLLECTION : At the initial prenatal routine ANC visit detailed history was taken from the pregnant female regarding age, parity, address, educational status, socio-economic status, diet, occupation, smoking, alcohol intake, increased physical activity, history of threatened abortion, previous preterm labour.

Thorough general as well as systemic examination was done Perabdomen and P/S examination was done in all patients to rule out any signs of infection and inflammation.

RESULT AND DISCUSSION : In our study maximum patients 84% were in age group between 21-30 years.Jacobsson et al (2004) reported in there study advanced maternal age has adverse perinatal outcome[2]. Schempf AH et al (2007) had found maternal age and parity are associated with preterm birth[3].

In the present study incidence of preterm labour was 36% in primigravida and 64% multigravida cases. In the present study the findings are similar to Lohsoonthorn et al (2007) study which has highest incidence of preterm labour in multiparous women[4].Shah PS(2010) also found in systematic review and metaanalysis that increase parity is associated with low birth weight and preterm birth[5].

In our study group 18 cases (36%) had history of previous abortion while in contrl group 13 cases (26%) had positive history of previous abortions. Statistically there is no significant difference in both the groups. (p value is non significant).Caroline Moreau et al (2005) were found in their study that previous induced abortions has high risk factor for preterm delivery[6]. Swingle HM et al (2009) found in systematic review and metaanalysis that Abortion was high risk factor for preterm birth[7]. Goldenberg RL et al (1998)found that previous history of preterm birth or second trimester pregnancy loss confers a very significant risk factor of preterm delivery[8].

In our study maximum patients 80% were in between 22-28 week of gestation age. Nathalie Auger et al(2014) found in their study that gestational age had dependent risk factor for preterm birth[9]. Clausson B et al (1998) reported risk factors of preterm and term birth of small for gestation age infants in their population based study[10].

CONCLUSION- preterm birth has increased over past decades.Some demographic characteristics of mother are strongly associated with risk of preterm birth.Hence these should be identified during antenatal checkups and there timely management can reduce

adverse pregnancy outcome.Further researches are needed to define underlying factors affecting mother in modern era.

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TABLE 1
Age distribution of sample

Age (Yrs)	Study groups (n = 100)		Control group(n = 100)	
	No	Percent	No	Percent
15 – 20	8	8	6	6
21 – 25	54	54	58	58
26 – 30	30	30	32	32
>30	8	8	4	4
Total	100	100	100	100
Mean age	25.06 + 3.45		24.60 + 3.00	

TABLE 2
Gravida and parity wise distribution of study group

	GRAVIDA		PARITY		
Gravity	No. of cases	Percentage	Parity	No, of cases	Percentage
G_1	36	36	P_o	48	48
G_2	22	22	P_1	26	26
G_3	22	22	P_2	20	20
G_4 and above	20	20	P_3 and above	6	6
Total	100	100		100	100

TABLE 3
Distribution of cases according to gestational age at admission

Gestational age (wks)	Study groups (n = 100)		Control group(n = 100)	
	No	Percent	No	Percent
20 – 22	20	20	62	62
22 – 25	44	44	18	18
26 – 28	36	36	20	20
Total	100	100	100	100
Mean	24.06 + 2.01		22.1 + 2.34	

TABLE 4
Distribution of sample according to history of previous abortion / preterm delivery

History of threatened abortion	Study group (n=100)		Control (n = 100)	
	No.	%	No.	%
Positive	36	36	26	26
Negative	64	64	74	74
Total	100	100	100	100
History of previous PTL				
Positive	22		22	
Negative	78		78	
Total	100		100	

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