ORIGINAL ARTICLE

Perinatal Mortality at Lady Willingdon Hospital Lahore

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ABSTRACT

A study was carried out at Lady Willingdon Hospital from 1st Jan 2009 to 31st Dec 2009. The aim of study was to identify risk factors for perinatal mortality. According to results of study, PMR was 95.44/1000 total births, still birth rate was 69.7/1000 total births and early neonatal death rate was 27.51/1000 live births. Anemia was leading cause for PND among medical causes while placental abruption followed by PIH/PE was leading cause among obstetrical factors. Among foetal factors prematurity was the leading cause. Higher no. of PND were seen in unbooked patients who belonged to rural areas, in teen age group and in primigravidas.

Key words: Perinatal mortality, Prematurity.

INTRODUCTION

Perinatal mortality rate is defined as number of still births plus early neonatal deaths per 1000 total births. It is the measure of the standards of obstetric care and the socioeconomic situations in the community concerned[1]. Perinatal data is used for improvement in health services provided to mother and baby, provision of information for monitoring the disease trends and for epidemiological studies to define high risk groups[2].

There is wide range of perinatal mortality rate throughout the world. WHO has estimated that the number of perinatal deaths worldwide is greater than 7.6 million, with 98% of these deaths occurring in developing countries[3]. Of the 3.7 million neonatal deaths and 3.3 million stillbirths each year, 98% occur in developing countries[4]. Factors responsible for it are early marriages, multiparity, poor socioeconomic status, hypertension, diabetes in pregnancy, antepartum haemorrhage, prolonged and difficult labor, birth trauma and asphyxia, low birth weight, prematurity, congenital malformation and infections.

PATIENTS AND METHODS

A study was carried out from 1st Jan 2009 to 31st Dec 2009 at Lady Willingdon Hospital which is a tertiary care teaching hospital. It drains extremely low socio-economic areas and is the only tertiary referral center for many districts at entrance of Lahore. Aim of study was to determine perinatal mortality rate and its contributing factors. All obstetric patients with gestation age greater than 24 weeks, regardless of age, parity and gravidity attending the labour room and ward were recruited. Patients with gestational age less than 24 weeks were excluded. Relevant data regarding history, risk factors in mother and baby were recorded on a pre-designed proforma and later analyzed on SPSS 10 for descriptive statistics.

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RESULTS

During the mentioned period of 12 months, there were 15706 deliveries and 1499 perinatal deaths occurred. Perinatal mortality rate was 95.44/1000 total births. There were 1097 still births and 402 early neonatal deaths, so still birth rate was 69.7/1000 total births. And early neonatal death rate was27.51/1000 live births. All the patients were from low socioeconomic status and majority were unbooked.

Age of patients ranged between 15-40 years. Majority (49%) of patients belong to age 15-20 years. 36% patients belong to age 20-35 years and 15% patients belong to age 35-40 years. Majority (61%) of patients was multigravida and 39% patients were primigravida.

Majority (49%) of patients belong to gestational age of 24-31 weeks. 9% patients were of 32-36weeks gestation while 42% patients belong to gestational age of 37-42 weeks. 30% perinatal deaths were due antepartum haemorrhage. 24% perinatal deaths were due to hypertension. Among these 24% deaths, 18% were due to PIH and 6% were due to eclampsia. 23% of mothers were anemic. Mechanical factors affecting the labour were responsible for 15% perinatal deaths.

Prematurity was leading cause for perinatal mortality and factors responsible for it were antepartum haemorrhage, hypertension, congenital malformations and chorioamnionitis leading to neonatal septicemia.

Antenatal checkup

Booking	**=n**	**%age**
Booked	270	18
Unbooked	1229	82

Residential status

Residential status	**=n**	**%age**
Rural	974	65
Urban	525	35

Age of patients

Age of patient	**=n**	**%age**
15-20 yrs	734	49
20-35 yrs	540	36
>35 yrs	225	15

Parity

Parity	**=n**	**%age**
Prim parity	584	39
G2-5	600	40
>G5	315	21

Birth weight

Birth weight	**=n**	**%age**
<2.5kg	929	62
2.6-4kg	555	37
>4kg	15	1

Gestational age

Gestational age	**=n**	**%age**
24-31wks	734	49
32-36 wks	135	9
37-42 wks	630	42

Maternal causes for perinatal mortality

Medical causes	**=n**	**%age**
Anemia	345m	23
Essential hypertension	38	0.5
Diabetes mellitus	82	5.5
Jaundice	22	1.5

Obstetrical causes	**=n**	**%age**
PIH/Preeclampsia	270	18
Eclampsia	90	6
Placenta previa	90	6
Placental abruption	360	24
Malpresentation	195	13
Scar dehiscence	7	0.5

Foetal causes for perinatal mortality

Foetal causes	**=n**	**%age**
Immaturity	869	58
Foetal distress	345	23
Congenital anomalies	90	6
Cord prolapse	7	0.5
Knot in umbilical cord	7	0.5
IUGR	15	1
Sepsis	7	0.5
Hydrops	10	0.7%

DISCUSSION

In developed industrialized countries, perinatal mortality rate has fallen markedly in last century and now it is 7.6/1000 births in New South Wales[5] and 7.6/1000 birth in UK[6]. But these rates are appallingly high in South Asia and other less developed countries[3]. In our study PMR is 95.44/1000 births. PMR of 106.8/1000 births was reported from India[7]. PMR of 97.4/1000 births was reported from Karachi[8]. The perinatal mortality rate is extremely high among unbooked cases. Same was observed in a study from Hyderabad[9]. Lack of awareness and unreachable health facility is responsible for the higher PMR. Malpractice of ill trained health workers is also responsible for not availing the facilities in cases that trust these spurious health workers.

Majority of perinatal deaths occurred in women of poor socioeconomic status and in teenage group. Such women usually have their first baby under the age of 20 and have greater no. of pregnancies. Same was observed in a study from Hyderabad[10]. Their nutritional status since childhood is poor and consequently pelvic abnormalities are more common. Usually they don't go for antenatal care. Majority of such cases were referred after some manipulation by traditional birth attendants. All these combination result in higher perinatal mortality rate. 39% perinatal deaths were seen in primigravidas, 40% were in G2-5 and 21% were in >G5. Same was observed in a study from Larkana[11].

In the present study PMR was very high in newborns weighing <2.5kg and it was comparatively low in newborns weighing >2.5kg. Same was observed by others[12].

Anemia, hypertension and diabetes mellitus were the common and preventable medical disorders in this study. Among obstetrical risk factors, placental abruption was responsible for high PMR. Same was observed by others[9]. Other obstetrical factors were PIH/Preeclampsia, eclampsia, malpresentation, placenta previa and scar dehiscence.

Among foetal factors, prematurity was responsible for high PMR followed by foetal distress and then congenital malformations. Same was observed by others[10].

CONCLUSION

High PMR seen in our study was more pronounced in unbooked patients and those who belong to rural areas. We can improve PMR by following footsteps of developed countries. We'll have to improve socioeconomic conditions, improve literacy rate of both genders, and improve nutritional status of population, availability of modern technology for both

obstetrical and neonatal care and availability of trained manpower for provision of these services.

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