ORIGINAL RESEARCH PAPER

Volume-6 | Issue-12 | December-2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 93.98

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

STUDY OF MEDICAL ILLNESSES IN PERIPARTUM FEMALES ADMITTED AT TERTIARY CARE CENTRE

Medicine

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ABSTRACT

Introduction: A significant proportion of pregnancies are complicated by medical illnesses and pregnancy may adversely affect an underlying medical disorder. A successful pregnancy requires important physiological adaptation, such as marked increase in cardiac output. Medical problems that interfere with the physiological adaptation of pregnancy increases the risk for poor pregnancy outcome.[1]

Aim: Our aim was to study medical illnesses in peri-partum females and its impact over pregnancy.

Materials and to Methodology: This study was retrospective enrolling 55 peripartum females, admitted in medical ward in our institute during January 2016 to August 2017.

Results and Discussion: Out of 55 patients, 45 patients were in antenatal period and only 10 patients were in postnatal period.38 patients were having infectious illnesses, while 17 patients were having non-infectious illnesses. Only 2 maternal and 1 fetal death was observed during study period.

Conclusion: In this study, medical illnesses were more common in 3rd trimester with age group of 21 to 25 year. Infectious medical illnesses were more common during antenatal period while non-infectious were common in postpartum period. Adverse impact on pregnancy in form of maternal or fetal mortality were only observed in noninfectious illnesses.

KEYWORDS

Introduction

Every day, about 830 women dies due to complications of pregnancy and child birth. Almost all of these deaths occurred in low-resource settings, and most could have been prevented. The primary causes of death are hemorrhage, hypertension, infections, and indirect causes, mostly due to interaction between pre-existing medical conditions and pregnancy. The risk of a woman in a developing country dying from a maternal-related cause during her lifetime is about 33 times higher compared to a woman living in a developed country.[2] India is also developing country falling into this category.[2]

Pregnancy is associated with increased many infectious and non-infectious diseases.

Pregnancy can be adversely affected if these diseases occur during pregnancy. Inversely, if some chronic disease like hypertension, valvular heart disease, liver disease or epilepsy is already present, pregnancy may adversely impact that disorder.[3]

Aim

Our aim was to study medical illnesses in peripartum females and to evaluate its demographic and disease distribution, its association with stage of pregnancy and its adverse impact over pregnancy.

Materials and Methodology

This study was conducted retrospectively enrolling 50 peripartum females admitted in medical ward for medical condition in our institute during 18 months of study from January 2016 to August 2017. According to pretested proforma, each patient underwent detaliled generalized and systemic examination, routine biochemical investigation, imaging and special investigation according to clinical presentation of patients. We have evaluated these patients by its demographic distribution, disease distribution, stage of pregnancy and its adverse impact over pregnancy.

Results & Discussion:

(1) Age distribution

Age group(years)	Number of patients(n=55)
18-25	42 (76.3%)
26-30	07 (12.7%)
31-36	06 (11.0%)

Maximum number of patients were in age group of 18 to 25 year (76.3%). Youngest patients was 19 year old and eldest was 36 year old. Mean age of patients was 24.1 year.

(2) Urban/Rural distribution :

Area	Urban	Rural
Number of patients	49 (89%)	06(11%)

Majority of the patients (89%) were from urban area and only (11%) were from rural area.

(3) Stage of pregnancy at presentation :

Stage of pregnancy	Total number of patients n=55	Infectious Disease n= 38	Noninfectious Disease n=27
1st trimester	09	06	03
2nd trimester	11	08	03
3rd trimester	25	21	04
Postpartum	10	03	07

In our study, 45.5% (n=25) patients were presented in 3rd trimester (making it most common stage of presentation). 20% (n=11) patients were in 2nd trimester and 16.3% (n=9) were in 1st trimester (making it least common stage of presentation).

Incidence of infectious disease in 3rd trimester was 84% (n=21), which was very high compared to 16% (n=4) of non-infectious disease. In 1st and 2nd trimester also infectious diseases were more common than non-infectious disease.

18.2% (10) were in postpartum stage. Incidence of non-infectious disease was 70% (n=7), which was much higher compared to 30% (n=3) incidence of infectious disease.

So, we can conclude that during antenatal period, infectious diseases were more common. While during postnatal period, non-infectious diseases were more common.

(4) Disease distribution

		Number of patients	Maternal or fetal death
Infectious disease n=38 (69%)	Acute viral fever	12 (31.5%)	NIL
	Malaria	6 (15.7%)	NIL
	Enteric fever	5 (13.2%)	NIL
	Dengue	4 (10.5%)	NIL
	AGE	4 (10.5%)	NIL
	LRTI	3 (7.9%)	NIL
	Hepatitis E	3 (7.9%)	NIL
	Chickenpox Encephalitis	1 (2.6%)	NIL
Noninfectious disease n=17 (31%)	Cerebral Venous sinus thrombosis	5 (29.4%)	1 (maternal)
	RHD	3 (17.6%)	1(maternal)
	GTCS	3 (17.6%)	1 (fetal)
	CVA	2 (11.8%)	NIL
	Tetany	1 (5.9%)	NIL
	Liver cirrhosis	1 (5.9%)	NIL
	CKD	1 (5.9%)	NIL
	HELLP syndrome	1 (5.9%)	NIL
	SLE	1 (5.9%)	NIL

In our study, out of total 55 patients, overall incidence of infectious disease was 69% (n=38) compared to 31% (n=17) incidence of non-infectious diseases.

Acute viral fever (31.5%), malarial (15.7%) (n=6, 4 patients of plasmodium vivax and 2 of plasmodium falciparum), enteric fever (13.2%) and dengue (10.5%) (n=4, 3 patients of dengue fever and 1 patient of dengue hemorrhagic fever) were most common infectious diseases.

Cerebral venous sinus thrombosis (29.4%) (n=5, 3 patients were of sagittal sinus thrombosis, 1 patient of sigmoid sinus and 1 patient of cavernous sinus thrombosis), rheumatic heart disease (17.6%) and generalize tonic clonic seizures were most common non-infectious diseases.

In our study, incidence of maternal or fetal mortality was 3 (7.8%). There was 2 maternal death and 1 fetal death. One mother was of rheumatic heart disease, which was in heart failure with severe pulmonary edema and was intubated and required medical ventilation. Another mother was of sagittal venous sinus thrombosis, which was presented in poor general condition (GCS was 3) with aspiration pneumonitis. All 3 patients were of non-infectious group of diseases. In infectious group, there was no maternal or fetal mortality.

Conclusion:

From our study, we conclude that overall infectious diseases are more common than non-infectious diseases in peripartum patients. Infectious diseases are more common in antenatal period. While non-infectious diseases are more common in postnatal patient. Most common age group involved is between18 to 25 years of age and mostly in 3rd trimester.

Adverse impact over pregnancy outcome, in form of maternal and fetal death was only in non-infectious diseases. So, non-infectious diseases are uncommon but they tends to cause adverse impact more than infectious diseases.

Recommendation:

More than two-third of preipartum patients were having infectious disease which can be significantly reduced by proper hygiene, frequent hand wash, sanitation, clean water, mosquito control and if required isolation of affected patient. This can significantly reduce admission of pregnant female in medical ward.

By early detection and adequate treatment of non-infectious diseases, maternal and fetal mortality can be prevented.

References:

1. Harrison Textbook of internal medicine, 19th edition, page no.45.
2. Global Health observatory data 2016, World Health Organization.
3. D.C.dutta's textbook of obstetrics, page no.467.