



Sepsis Related Maternal Near Miss And Mortality In Low Income Country

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Introduction

Maternal morbidity and mortality (MMR) are global socioeconomic and health care burdens. It accounts for 10-15% deaths in postpartum period and continues to be leading cause of mortality in developing countries. Achieving global MMR below 70 by year 2030 will require an annual rate of reduction of 11.6%. Maternal death the most catastrophic end is described as just “tip of the iceberg “whereas maternal near miss as base ,therefore Maternal Near Miss (MNM) is increasingly used as an indicator of quality of obstetric care.

Objectives

The objective of my study was to determine the burden and associated factors with maternal near miss and mortality due to post natal infections at tertiary care public sector hospital.

Method

A cross sectional study conducted for one year. All the admitted women diagnosed with postnatal infection after vaginal delivery, C/Section and septic abortion , who met WHO “criteria for near miss” based on organ failure. Data was collected on predesigned proforma after patients written and informed consent. Data was entered and analyzed on IBM SPSS version 23. Association of parameters were tested using Pearson chi square and Fisher’s Exact test. P value < 0.05 were considered statistically significant.

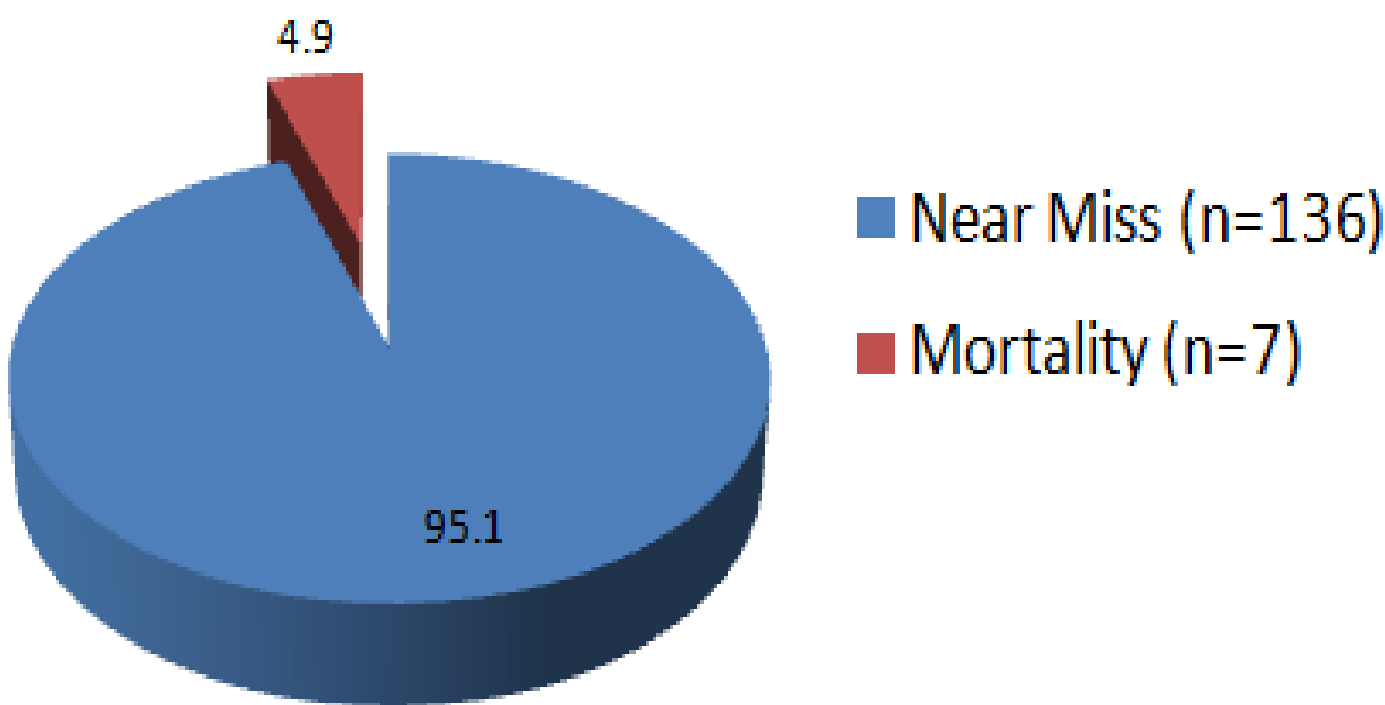
Table. 1 Demographic Characteristics and Factors associated with maternal near miss and mortality due to postnatal Infections .

Variables		Maternal Outcome						P-value
		Near Miss (n=136)		Mortality (n=7)		Total (n=143)		
		n	%	n	%	n	%	
Age (years)	15-25	47	34.6	1	14.3	48	33.6	0.52
	26-35	71	52.2	5	71.4	76	53.1	
	Above 36	18	13.2	1	14.3	19	13.3	
Address	Rural	48	35.3	5	71.4	53	37.1	0.06
	Urban	88	64.7	2	28.6	90	62.9	
Occupation	Housewife	90	66.2	3	42.9	93	65.0	0.42
	Working lady	46	33.8	4	57.1	50	35.0	
Education	Uneducated	73	53.7	2	28.6	75	52.4	0.10
	Primary	44	32.4	2	28.6	46	32.2	
	Secondary	19	14.0	3	42.9	22	15.4	
Parity	Nulliparous	7	5.1	1	14.3	8	5.6	0.43
	Primiparous	25	18.4	2	28.6	27	18.9	
	Multi Parous	104	76.5	4	57.1	108	75.5	
Mode of admission	OPD	28	20.6	1	14.3	29	20.3	0.69
	Emergency	33	24.3	1	14.3	34	23.8	
	Referral	75	55.1	5	71.4	80	55.9	
Booking Status	Booked	41	30.1	3	42.9	44	30.8	0.36
	Un-booked	95	69.9	4	57.1	99	69.2	
Mode of delivery	Cesarean Section	86	63.2	4	57.1	90	62.9	0.94
	Vaginal Delivery	17	12.5	1	14.3	18	12.6	
	Septic abortion	33	24.3	2	28.6	35	24.5	
Diagnosis	Peritonitis	54	39.7	2	28.6	56	39.2	0.94
	Wound infection	41	30.1	2	28.6	43	30.1	
	Endometritis	6	4.4	1	14.3	7	4.9	
	Parietal infection	3	2.2	0	0.0	3	2.1	
	Hemoperitoneum	4	2.9	0	0.0	4	2.8	
	Uterine dehiscence	8	5.9	1	14.3	9	6.3	
	Foreign body	3	2.2	0	0.0	3	2.1	
	Retained placenta	11	8.1	1	14.3	12	8.4	
	Tubo-ovarian abscess	2	1.5	0	0.0	2	1.4	
	Necrotizing fasciitis	4	2.9	0	0.0	4	2.8	
Received antibiotics prior to surgery	Yes	104	76.5	5	71.4	109	76.2	0.35
	No	17	12.5	2	28.6	19	13.3	
	Unknown	15	11.0	0	0.0	15	10.5	

Results

Total 143 women included in study, 95.1% women identified as near miss and 4.9% were expired. Majority of women (53.1%) were 25-36 years of age, belonged to rural areas (62.9%). Mostly uneducated, referred cases from primary and secondary care hospitals. 58.1% near miss and 71.4% maternal deaths cases have initial procedure of C/Section. There was a significant association of C/Section with maternal near miss and mortality (p<0.01). Major cause of postnatal infections were peritonitis (39.2%), wound infection (30.1%) and septic abortion (20.3%). (76.2%) received antibiotics before transfer to tertiary care hospital, that shows significant association with antibiotics resistance.

Incidence



Conclusion

Cesarean/Section related peritonitis, septic abortion and antibiotics resistance were mainly associated with postnatal infections. Local strategies and policies should be established and implemented to improve safety, quality and infection control for postnatal period of women.

References

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