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A Clinical Study of Puerperal Sepsis

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ABSTRACT

Puerperal sepsis is one of the leading causes of preventable maternal mortality and morbidity.Delay in detection and treatment may lead to obstetric shock and even death.The quality of obstetric care is measured in terms of maternal mortality and morbidity and puerperal sepsis levels are considered markers for outcomes in view of association with poor hygiene at the time of birth and indicators of poor quality birth facility.Present study was a retrospective study of 56 women admitted under department of OBGY, Government medical college, Nanded during a period of 45 months from January 1 st ,1999 to September 30 th , 2002.Data analyzed with where the delivery was conducted and pathogens responsible, number of days of hospital stay and surgical treatment required.

KEYWORDS : Puerperal pyrexia , puerperal sepsis, colpotomy

Introduction

Puerperal sepsis is one of the leading causes of preventable maternal mortality and morbidity.Delay in detection and treatment may lead to obstetric shock and even death.The quality of obstetric care is measured in terms of maternal mortality and morbidity and puerperal sepsis levels are considered markers for outcomes in view of association with poor hygiene at the time of birth and and indicators of poor quality birth facility. According to WHO estimates , puerperal sepsis accounted for 15 % of total maternal deaths in 2010 globally . It is the second most common cause of maternal deaths in India second only to hemorrhages during and after childbirth.Oliver Holmes,in 1843,was the first to establish that puerperal fever was contagious .With this in consideration , a study at tertiary level hospital i.e Government medical college, Nanded was undertaken.

Materials and methods

Present study was a retrospective study of 56 women admitted under department of OBGY, Government medical college, Nanded during a period of 45 months from January 1 st ,1999 to September 30 th , 2002.All women admitted with puerperal sepsis ,either delivered at the same hospital and readmitted or delivered somewhere else and now diagnosed with puerperal sepsis were included. Puerperal pyrexia was defined as a temperature greater than 38 degree centigrade on 2 of the first ten days following delivery excluding first 24 hours.Puerperal sepsis was defined with any two of the following criteria present –

- Pelvic pain
- Fever
- Abnormal vaginal discharge
- Subinvolution (Delay in rate of reduction of size of uterus i.e. < 2 cm per day during first 8 days)

Mode of delivery, place of delivery noted to find out causative factor. Delivery to admission interval noted as delay in access to health care facility could be cause of serious concern.Presenting complaints , parity and signs on admission noted.Severity of sepsis noted clinically ; endometritis,endomyometritis to peritonitis.Hematological profile was done . Cervical swab was sent for culture and sensitivity of microbes. Ultrasonography was done to know retained products of conception if any .Need for blood transfusion noted. Average hospital stay was noted.Surgical procedures carried out to treat severe sepsis were studied. Associated features were analyzed.

Results

Of the 56 women in the study group,36 (64 %) gave a history of deliverey at home.Only 17 delivered at hospital . Just 3 women (5.35 %), underwent cesarean section .

Figure 1 shows delivery to admission interval , which in the present study was ranging from 0 to 21 days , many admissions were from 6 th to 10 th day.

Of 56 women , 39 had fever,18 complained of pain in abdomen as presenting symptom ,10 presented with distension of abdomen ,9 had bleeding per vaginum 7 had loose motions. Unhealthy discharge was chief complaint of 5 women.4 women presented with vomiting and 3 complained of retention of urine.Tingling numbness was a symptom in one woman and one presented with involuntary movements. Many patients had more than one symptom . 21 women were primis , 15 were second para , 6 were third and 14 were of 4th and more parity.23 women had pyrexia defined as temperature more than 38 degrees and 13 had tachycardia defined as pulse rate more than or equal to 120 per minute.

22 women (39.28 %) had pelvic infection limited to uterine cavity i.e. endometritis. While 18 women (32.14 %) had endomyometritis and 16 (28.57 %) had frank signs of peritonitis.

Perineal tear was found in 8 women – of these 6 had first degree, one each had second and third degree tear.All 56 women were anemic and 7 had leucocytosis.

Table 1 shows pathogens found on culture of cervical swab .Klebsiella and staphylococcus aureus was commonly found.

Table 1 – Pathogens found on culture of cervical swab

Cervical swab	Total 12
Klebsiella	3
Staph.aureus	3
E.coli	2
Pseudomonas	1
B hemolytic streptococci	1
No growth	2

Colpopuncture fluid was also sent for culture of microbes it also confirmed commonly found organisms as klebsiella and staphylococcus aureus.Findings are shown in table 2 .

Table 2 – Pathogens found on culture of colpopuncture fluid.

Colpopuncture fluid	Total 12
Staph aureus	4
E.coli	2
Pseudomonas	2
Enterobactericiae	1
No growth	1
No organism	1
Collection contamination	1

Retained products of conception was reported on sonography in 13 women (23.31 %).

In 8 women (14.28 %) , pelvic abscess was drained by colpotomy . 2 women required laparotomy for generalized peritonitis with pus all over abdomen . 2 women of the colpotomy group required a laparotomy subsequently as peritonitis didn't resolve.Thus , 4 women underwent laparotomy.

25 women (44.64%) , received blood transfusion for correction of anemia . Of these , 14 received 1 unit ; 9 women received 2 units and 2 women received 2 or more units.

Puerperal psychosis was seen in 3 (5.35 %) women and 1 had Herpes labialis as associated feature.

Hospital stay was from 2 to 21 days with mean of 7.5 days and mode as 8 .Unfortunately , there were 5 deaths .These were women who presented late with septicaemia .

Discussion

Incidence of puerperal sepsis varies from region to region and exact incidence is difficult to calculate.Hospital based studies are not a reliable source of data for developing countries because many women donot have access to healthcare facility.Women delivering at hospital may not be representative of general population.Most postpartum infections are noted after discharge of delivered woman. In the absence of postnatal followup , many cases of puerperal infections are undiagnosed and unreported.

As the number of institutional deliveries has risen in India, so has the incidence of puerperal sepsis.This could be because of overcrowding of hospitals , overworked healthcare workers,shortage of drug supplies and substandard clinical practices.Considering the rising trend of cesarean section in India, rising trend in puerperal sepsis may be seen in near future. Nosocomial infections and antibiotic resistance may be causative for it.

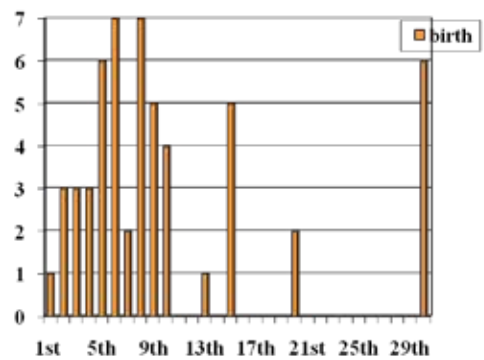
Puerperal sepsis puts economic burden on the family as well as on the society .We can not afford to lose women to puerperal infections , which can easily be prevented.Prevention requires multipronged approach invoving help from primary health workers , skilled birth attendants , doctors, nurses , family members of the new mother and local health authorities.Continuous investment in healthcare will pay rich dividends .

Conclusion

Of all the components of maternal healthcare delivery, postnatal and early newborn care are the most neglected.Only 1 in 6 women receive adequate postpartum care in India.Clean and hygienic environment of postpartum ward with avoidance of too many visitors , use of sterile sanitary pads and frequent change of pads , use of antiseptic solutions to cleanse perineal wound after each act of defecation and urination ,isolation of puerperal sepsis women are some of the recommended measures.

Under National rural Health mission , 1.4 lakh human health resources have been added to the health system in India (September 2011) .Accredited social health activists (ASHA) also help deliver healthcare. Janani Suraksha Yojna was launched to promote institutional deliveries . On 1st of June 2011, Janani shishu suraksha Karyakram was launched. All these measures may help reduce sepsis in future.

Figure 1- Delivery to admission interval.



REFERENCES

1. Puerperal sepsis as a quality marker .Is our routine data capturing it ?www.cddep.org | 2. Puerperal sepsis .Sayali Shripad Jahagirdar , Pushpa Junghare (Somvanshi) .Recent advances in postpartum care . FOGSI publication .2013. | 3. WHO.Postpartum care of the mother and newborn ; a practical guide WHO, Austria .379 (1998). | 4. Puerperal sepsis – a preventable postpartum complication .Dare F O et al.Trop Doct.1998 | Apr ,28 (2);92-5. | 5.Puerperal pyrexia: a review Part II. Maharaj D.Obste Gyn Survey2007 ;Jun 62 (6);400-6. |