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Research Article

ANALYSIS OF DIFFERENT RISK FACTORS OF SURGICAL SITE INFECTION IN OBSTETRICS FEMALES IN PAKISTAN

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Introduction: Infection is one of the most common causes of maternal mortality and morbidity in obstetrics. Surgical site infections (SSIs) are infections that occur at or near surgical incision within 30 days of operation or after 1 year if an implant is placed.

Objectives of the study: The main objective of the study is to analysis of associated risk factors of surgical infection in obstetrics among females in Pakistan.

Methodology of the study: The current study was conducted in the surgical department of Nishtar Hospital, Multan for a period of 9 months during March 2018 to December 2018. The information incorporates every one of those ladies who conveyed child through C-segment or by ordinary conveyance. Office based review observational study configuration was completed purposively to evaluate the prevalence of surgical site infections and related hazard factors among moms who had conveyance related medical procedure at obstetric ward of healing facility from the determined example estimate.

Results: The socio-statistic estimations of the patients showed that these are reliant variables and SSI is likewise relying on these qualities. Socio statistic variable had no noteworthy relationship with SSIs aside from age, those ladies age under nineteen years were multiple times danger of creating surgical site infection as contrast with those ages run 20– 34.

Conclusion: It is concluded that surgical site infection rate become high among young age women as compared to old age women. Duration of surgery and wound healing are not a dependent factor these are independent factors because it is not related to SSI.

Key words: SSI, Infection, Pregnant, Women.

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INTRODUCTION:

Infection is one of the most common causes of maternal mortality and morbidity in obstetrics. Surgical site infections (SSIs) are infections that occur at or near surgical incision within 30 days of operation or after 1 year if an implant is placed. Pregnant ladies are in danger of infection amid work and conveyance; most infections of the female pelvic organs happen when ordinary verdure of the female genital or gastrointestinal tract taints the regularly clean amniotic liquid and uterus. Infection in obstetrics represents the second most regular reason for maternal mortality by baby blues hemorrhage [1]. Infection is characterized as an intrusion and duplication of microorganisms in body cells and tissues, which might be clinically unapparent or result in local cell damage due to aggressive digestion, poisons, intracellular replication or antigen-counter acting agent response [2]. Surgical site infection (SSI) appears in the postoperative period that occurs inside 30 or 90 days of post-specialist strategy because of metallic install expansion. Infection has constantly been a component of human life and sepsis in present day medical procedure continues being a basic issue for therapeutic administrations specialists over the globe [3]. It isn't only an essential explanation behind awfulness and mortality yet also cause outrageous monetary weight all through the world by causing torment, extending the risk of healing facility readmission and making repeated systems more probable [4].

Surgical site infection (SSI) is the second most ordinary overwhelming entrapment after urinary tract infection following cesarean area (CS) conveyance. Surgical site infection after cesarean segment is connected with extended maternal somberness, deferred doctor's facility remain, and extended helpful expenses [5]. The beneficial effect of antibody poison prophylaxis in diminishing occasions of infection related with elective or emergency

cesarean area is starting at now settled. In various associations, the counter infection association is performed after the umbilical rope has been supported, guarded by the neonatal impact of antimicrobial utilize [6].

Objectives of the study

The main objective of the study is to analysis of associated risk factors of surgical infection in obstetrics among females in Pakistan.

METHODOLOGY OF THE STUDY:

The current study was conducted in the surgical department of Nishtar Hospital, Multan for duration of 9 months during March 2018 to December 2018. The information incorporates every one of those ladies who conveyed child through C-segment or by ordinary conveyance. Office based review observational study configuration was completed purposively to evaluate the prevalence of surgical site infections and related hazard factors among moms who had conveyance related medical procedure at obstetric ward of healing facility from the determined example estimate.

Statistical analysis

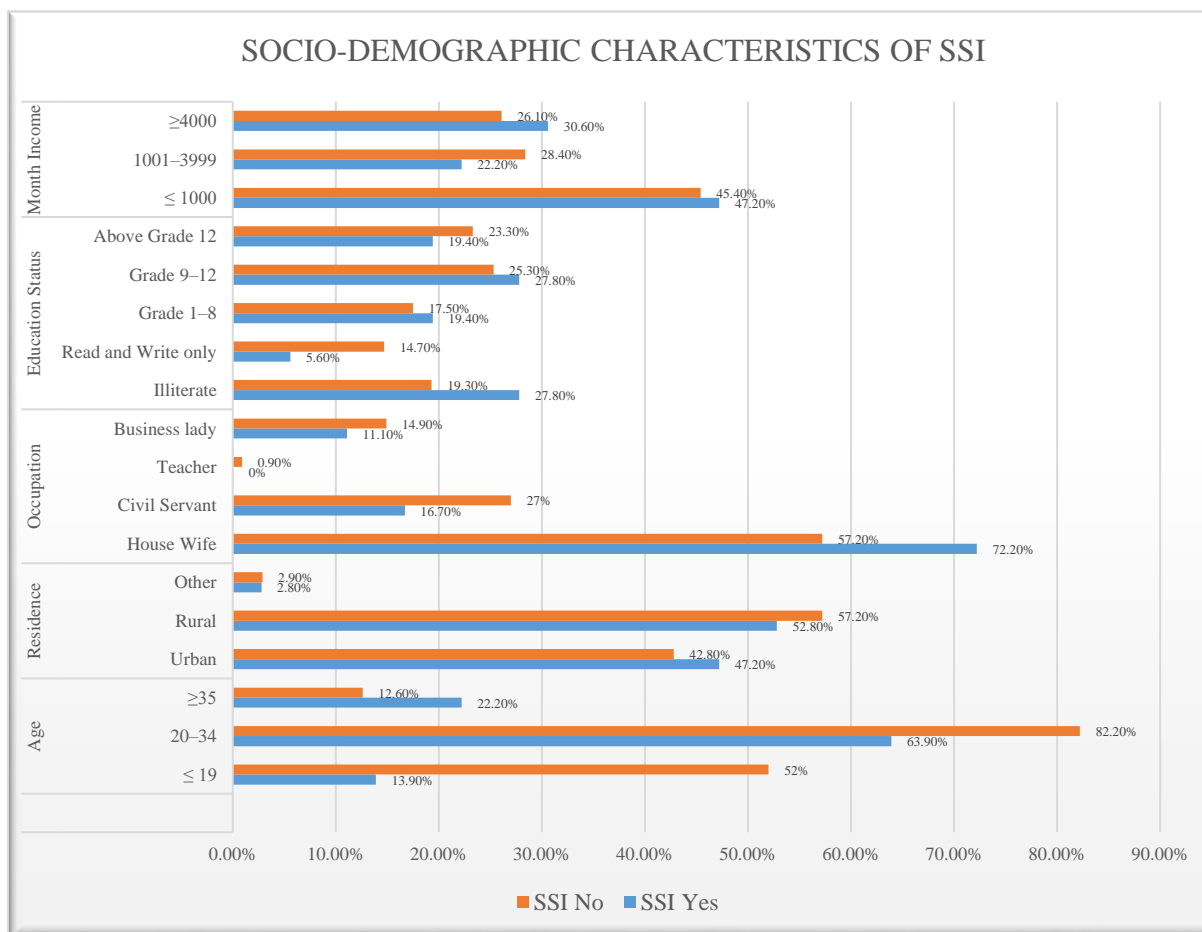
The gathered information were broke down utilizing SPSS programming (adaptation 17). The outcomes are introduced as a mean with 95% certainty interim cutoff points or standard deviations. The significant value for $P < .05$ was accepted as statistically significant.

RESULTS:

The socio-statistic estimations of the patients showed that these are reliant variables and SSI are likewise rely on these qualities. Socio statistic variable had no noteworthy relationship with SSIs aside from age, those ladies age under nineteen years were multiple times danger of creating surgical site infection as contrast with those age run 20– 34.

Table 01: Analysis of socio-demographic characteristics of SSI among women having obstetrics surgery

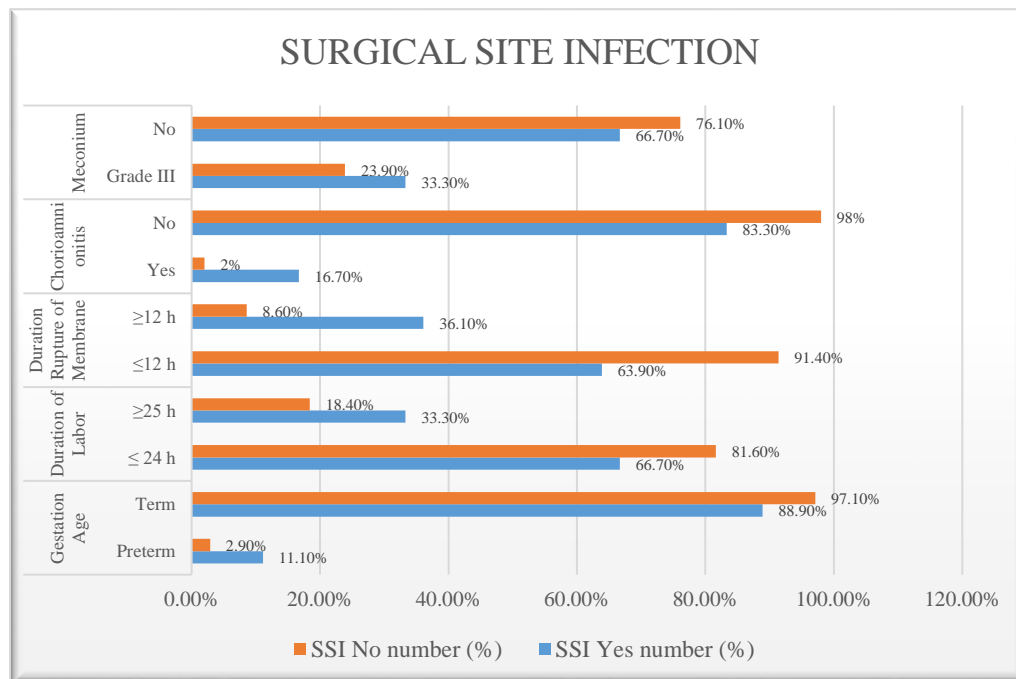
Variable	Category	SSI		Crude OR(95%CI)
		Yes Number (%)	No Number (%)	
Age	≤ 19	5(13.9%)	18(52%)	3.453(1.18–10.00)
	20–34	23(63.9%)	286(82.2%)	1
	≥35	8(22.2%)	44(12.6%)	2.26(0.95–5.37)
Residence	Urban	17(47.2%)	149(42.8%)	1
	Rural	19(52.8%)	199(57.2%)	0.837(0.437–1.66)
	Other	1(2.8%)	10(2.9%)	0.979(0.120–7.981)
Occupation	House Wife	26(72.2%)	199(57.2%)	2.047(0.815–5.14)
	Civil Servant	6(16.7%)	94(27%)	1
	Teacher	0	3(0.9%)	0.000(0.000)
	Business lady	4(11.1%)	52(14.9%)	1.205(0.325–4.465)
Education Status	Illiterate	10(27.8%)	67(19.3%)	1.727(0.64–4.783)
	Read and Write only	2(5.6%)	51(14.7%)	0.454(0.091–2.270)
	Grade 1–8	7(19.4%)	61(17.5%)	1.328(0.442–3.985)
	Grade 9–12	10(27.8%)	88(25.3%)	1.315(0.478–3.617)
	Above Grade 12	7(19.4%)	81(23.3%)	1
Month Income	≤ 1000	17(47.2%)	158(45.4%)	0.890(0.400–1.983)
	1001–3999	8(22.2%)	99(28.4%)	0.669(0.257–1.736)
	≥4000	11(30.6%)	91(26.1%)	1



In our study, there was a statistically significant association between gestation age and SSIs, preterm gestation age mothers were four times more likely to develop SSIs as compared to those mother's gestation age was term. Table 02 shows the gestational age and duration of labor of patients. This data represents the common population of Pakistan.

Table 02: Association of surgical site infection and obstetric variable among women having obstetric surgery

Variable	Category	SSI		Crude OR(95%CI)
		Yes number (%)	No number (%)	
Gestation Age	Preterm	4(11.1%)	10(2.9%)	4.225(1.254–14.238)
	Term	32(88.9%)	338(97.1%)	1
Duration of Labor	≤ 24 h	24(66.7%)	284(81.6%)	1
	≥ 25 h	12(33.3%)	64(18.4%)	2.219(1.054–4.670)
Duration Rupture of Membrane	≤ 12 h	23(63.9%)	318(91.4%)	1
	≥ 12 h	13(36.1%)	30(8.6%)	5.991(2.757–13.022)
Chorioamnionitis	Yes	6(16.7%)	7(2%)	9.743(3.077–30.848)
	No	30(83.3%)	341(98%)	1
Meconium	Grade III	12(33.3%)	83(23.9%)	1.596(0.765–3.33)
	No	24(66.7%)	265(76.1%)	1
	Total	36	348	



DISCUSSION:

SSIs represent a burden to the health care system and patient, mainly attributable to the extended length of stay in hospital and additional treatment required [5-6]. Subsequently, techniques and intercession went for decreasing the occurrence of SSIs could give cost-sparing and enhance the proficiency of the health care system [7]. The rate of SSIs were bring down when we contrasted our finding and distinctive examinations led in African nations yet at the same time higher than the investigations directed in created countries [8].

A vast part of the SSIs found in our examination were shallow SSI. This resembles diverse examinations from resource constrained settings. In USA furthermore around 66% of the SSI are shallow and staying profound [9]. In USA the surveyed recurrence of SSIs in hysterectomy is around 1.7%. In any case, as demonstrated by the makers this is apparently a have a poor opinion of a similar number of healing centers don't have the advantages for track SSI occurring outside of the hospital [10-11]. Youthful maternal age has been seemed, by all accounts, to be a risk factor for SSI following

cesarean area. In any case, our examination we found that age more than 40 years as a danger factor for SSI [12]. This may be a direct result of the patient mix in our examination, which included both gynecological and obstetric surgeries. A regional network data from USA did not show any refinement in age of the women having SSI following hysterectomy [13-14]. Ignoble arranging of hostile to infection prophylaxis in our examination was a basic danger factor for SSI. Practically identical results have been represented previously and are also as per proposals from prophylaxis rules [15]. Regardless, in the midst of the examination time frame no standard methodology for prophylaxis was taken after. The American Congress of Obstetricians and Gynecologists recommends pre-operator hostile to microbial prophylaxis for hysterectomies, incited untimely births, hysterosalpingography, and uro-gynecological procedures [16-17].

CONCLUSION:

It is concluded that surgical site infection rate become high among young age women as compared to old age women. Duration of surgery and wound healing are not a dependent factor these are independent factors because it is not related to SSI.

Contribution of authors

All the authors contributed equally.

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