



CASE REPORT

PREVIOUS LOWER SEGMENT CESAREAN SECTION SCAR LINE INFECTION; DURING ANTEPARTUM PERIOD:

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ABSTRACT

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Caesarean section is a common operation in obstetrics practice. A post-caesarean wound infection is the surgical site infection in incision line which can develop after an abdominal delivery. We describe here an unusual case of a 30 years old woman with superficial surgical site infection in her previous lower segment cesarean section scar line; long after 1.5 years of previous cesarean section during her second pregnancy. She was given a proper wound care and was successfully treated and delivered a healthy baby by cesarean section. They were discharged without any complications on the 3rd postoperative day.

Key Words: Surgical site infections (SSI), Lower segment cesarean section (LSCS), Antepartum period.

INTRODUCTION

Caesarean section is a common operation in obstetric practice. The literature shows a momentous rise in its incidence worldwide and there is much variance in percentages depending on area of practice and also among the government versus private sector hospitals¹⁻⁴. Surgical site infections (SSIs) being a consequential operative complications of it, that occurs in about 2% of surgical procedures and are responsible for 20% of health care-associated infections⁵. A post-caesarean wound infection is the surgical site infection that occurs in incision line after an abdominal (cesarean or C-section) delivery and accounts for about 3-6% in women who have a delivery by cesarean section (6). A study documented significantly higher rates of surgical site infections in high-risk cases and developing countries⁶⁻⁷.

In this report, we document a case of a woman with beta-hemolytic streptococcus infection in previous low segmental cesarean section scar line, who was in her third trimester of pregnancy. The case is exceptional, as the infection superficial surgical site infection occurred 1.5 years later, on contrary it usually occurs within 30 days after a surgery⁸⁻⁹. No causative factor was identified.

CASE REPORT

In the year 2015 a 30-year-old gravida 2 para1 presented to High Risk Obstetrics

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clinic at a tertiary care hospital. She was at 37-week gestation; the duration of pregnancy was assessed by the Naegele's rule which was confirmed by 30 week abdominal ultrasound, previous one cesarean section. She presented with a 6 day history of discharge, itching and pain on Pfannenstiel scar line of previous low segmental cesarean section (LSCS).

According to the patient she was in her usual state of health when she noticed a feeling of very mild itch and pain at the scar line that grabbed her attention, which later started discharging. Initially the patient ignored the symptoms but afterward as the symptoms worsen in terms of severity, led her to seek medical help.

Past obstetrical history revealed previous cesareans section at term, one and half years ago, due to be pregnancy induced hypertension (PIH). The delivered baby boy was healthy and normal. Past gynecological and menstrual histories were unremarkable. There was no history of diabetes mellitus, tuberculosis, hypertension, cardiac disease or other ailment. No history of allergies or any addiction. No past minor or major surgery except the previous c-section. The family history for disease was unremarkable. Three weeks prior to presentation she was transfused 2 units of packed cell volumes for the correction of anemia during third trimester (3 weeks before the current complain).

The patient was immediately admitted. On presentation, she was well oriented to time, place and person. On examination anemia, clubbing, palor, edema, cyanosis and erythema, all were unremarkable. Her vitals were as follows: blood pressure 110/70, pulse 84, temp 98°F and respiratory rate 18.

Per abdominal examination showed erythematous induration on transverse LSCS scar line with discharging pus , Symphysis-fundal height of 36 weeks, cephalic presentation, longitudinal lie, fetal heart sounds present, uterine contractions

nil/10 minutes, amount of liquor was adequate. Per vaginal examination showed closed os, rest of the findings were unremarkable.

On the same day, CBC, LFTs, blood biochemistry, coagulation profile, creatinine, BUN, urine DR, CTG, umbilical artery doppler and wound c/s were ordered. the patient was under strict observation and charting for blood pressure, temperature, pulse, respiratory rate, fetal movement, fetal heart rate were made.

All the investigations came out to be under normal limits except the CBC that showed moderate iron deficiency anemia. The preoperative wound c/s report revealed a beta-hemolytic streptococcal infection.

The patient was kept inpatient for 4 days. On the initial 2 days she was given intravenous antibiotics along with the oral analgesics, iron supplement and serratiopeptidase. The therapeutic regime continued for the next two days onward except the antibiotics were switched to oral antibiotics and fusidic acid cream twice daily for local application. There was significant improvement of the wound and the patient was discharged home on the fourth day. The patient was prescribed the same drugs for the two weeks onward.

She remained well at an outpatient follow up, 2 weeks later. The examination of lesion was unremarkable, signs and symptoms had been subsided well. The antibiotics and serratiopeptidase were then discontinued.

The patient underwent LSCS at 39 weeks of gestation the indication was found to be anticipating labour and contracted pelvis. Per operatively the underlying fascia and muscle layers underneath the previous scar were found to be normal and healthy. The previous scar line was trimmed off and a healthy baby boy was delivered. She enjoyed an uneventful

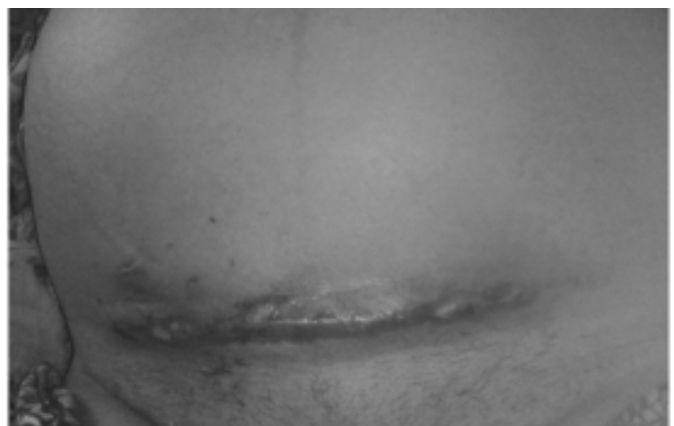
FIGURE 1

Patient at her first presentation.



FIGURE 2

On fourth day of inpatient stay



postnatal period, and mother and son were found fit for discharge after 3 days postoperatively.

DISCUSSION

Caesarean section is a common major surgical operation in obstetric practice which is potentially life-saving procedure for both mother and infant. The incidence is rising worldwide and the reported incidence ranges from 5 to 36.5% depending on the nature and area of practice ¹⁻². Indications of cesarean section includes; non-reassuring fetal status, arrest of dilation of cervix, multiple gestation, pre-eclampsia, suspected macrosomia, and maternal request which has contributed in increased incidence over time, while arrest of descent, malpresentation, maternal-fetal indications, and other obstetric indications (eg, cord prolapse, placenta previa) did not result in the rise of c-section's incidence ². Apart from pros there are cons of the procedure, the women may experience complications after caesarean section such as hemorrhage, infection, and thrombosis³.and they have an increased risk of complications in subsequent pregnancies (such as uterine rupture and placenta previa) ⁴.Surgical site infections (SSIs) are serious operative complications of it that occurs in approximately 2% of surgical procedures and account for some 20% of health care-associated infections ⁵.A post-cesarean wound infection is the surgical site infection that occurs in incision line after an abdominal (cesarean or C-section) delivery and accounts for about 3-6% in women who have a delivery by cesarean section ⁶.A study documented significantly higher rates of surgical site infections in high-risk cases and developing countries {15-75 %} ⁶.Caesarean wound infection is a major cause of prolonged hospital stay, high hospital bills, as well as other morbidity and mortality ⁷⁻⁸.

The CDC definition states that infections occurring within 30 days after the operation and infection involves only skin or subcutaneous tissue of the incision is termed as superficial SSIs⁹.However our case is an exception as the infection occurred after a duration of 1.5 years of previous surgery.

Staphylococcus aureus, coagulase-negative staphylococci, *Enterococcus* spp., and *Escherichia coli* remain the most frequently isolated pathogens. An increasing proportion of SSIs are caused by antimicrobial-resistant pathogens, such as methicillin-resistant *S. aureus* (MRSA) or by *Candida albicans*. While among the obstetric and gynecological procedures gram-negative bacilli, enterococci, group

streptococci, anaerobes remains the most common pathogens⁹. Outbreaks or clusters of SSIs have also been caused by unusual pathogens, such as *Rhizopus oryzae*, *Clostridium perfringens*, *Rhodococcus bronchialis*, *Nocardia farcinica*, *Legionella pneumophila* and *Legionella dumoffii*, and *Pseudomonas multivorans*⁹.

CONCLUSION

The accent of this case is pregnant women with infections need a careful workup, evaluation and prompt management in order to avoid subsequent obstetrics complications; for both the mother and fetus ¹⁰.

CONFLICT OF INTEREST

There is no conflict of interests among the authors.

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CONTRIBUTION / INPUT OF EVERY AUTHOR

All the authors have contributed from central idea to writing significantly and equally