

ORIGINAL RESEARCH

Assessment of prevalence of complications of Caesarean section delivery

¹Aasif Abdullah, ²Saima Gayas^{1,2}Gynecologist, JK Health Services, Jammu and Kashmir, India**ABSTRACT:**

Background: The present study was conducted for evaluating the prevalence of complications of Caesarean section delivery. **Materials & methods:** A total of 100 subjects who were scheduled to undergo Caesarean section were enrolled. Complete demographic and clinical details of all the subjects were obtained. Detailed past medical history of all the subjects was recorded. A Performa was made and all the relevant details were recorded. Baseline hemodynamic and biochemical variables of all the patients were recorded. All the Caesarean sections were performed under combined spinal-epidural anesthesia. Continuous monitoring of all the patients was done. Complications, if any, were recorded separately and analyzed. All the results were assessed using SPSS software. **Results:** Overall complications were seen in 11 percent of the patients. Transient Tachypnea of the Newborn and Respiratory distress syndrome were seen in 3 percent and 2 percent of the patients respectively. Labor injuries and NICU admission were seen in 2 percent and 1 percent of the patients respectively. Muscle pain, infection, fever and abnormal bleeding were seen in 2 percent, 3 percent, 2 percent and 2 percent of the patients respectively. **Conclusion:** A cesarean section is a surgical procedure which can lead to numerous complications in both mother and child. For this reason, cesarean section cannot be considered an equal alternative to spontaneous childbirth, and should be viewed with caution.

Key words: Complications, Caesarean Section

Received: 15 May, 2021

Accepted: 19 June, 2021

Corresponding Author: Aasif Abdullah, Gynecologist, JK Health Services, Jammu and Kashmir, India**This article may be cited as:** Abdullah A, Gayas S. Assessment of prevalence of complications of Caesarean section delivery. J Adv Med Dent Sci Res 2021;9(7):211-213.**INTRODUCTION**

Cesarean section is the most common major obstetric surgery and the oldest operation in the field of abdominal surgery, used for delivering the newborn and the placenta through the abdominal wall incision (laparotomy) and uterus incision (hysterectomy), followed by suture of the uterus and abdominal wall layers. Improvements in the obstetric surgical techniques based on modern, scientifically evidenced concepts were made in the last decades of the 20th century, having led to a simpler and less traumatizing approach to cesarean section with better postoperative recovery and outcome. The rate of cesarean section has been on a continuous increase for justifiable as well as unjustifiable medical and non-medical reasons, and this trend should preferably be discontinued.¹⁻³ The recommended rate of cesarean sections is around 15% in the largest and best-equipped obstetric tertiary centers with a high concentration of gestational and obstetric pathology, whereas in smaller maternity units it should be even lower. Some pre-existing diseases in the mother increase the probability of risk factors that can

necessitate a cesarean section. The first of these is diabetes mellitus or gestational diabetes, which if untreated can result in the birth of children with a birth weight of over 4000 g. Since the prevalence of obesity is continually rising, the logical result is that the probability is also increasing that women with diabetes are becoming pregnant, or that gestational diabetes will develop. In addition, overweight and obesity are associated with other risks such as hypertension.⁴⁻⁶ Hence; the present study was conducted for evaluating the prevalence of complications of Caesarean section delivery.

MATERIALS & METHODS

The present study was conducted for evaluating the prevalence of complications of Caesarean section delivery. A total of 100 subjects who were scheduled to undergo Caesarean section were enrolled. Complete demographic and clinical details of all the subjects were obtained. Detailed past medical history of all the subjects was recorded. A Performa was made and all the relevant details were recorded. Baseline hemodynamic and biochemical variables of all the

patients was recorded. All the Caesarean sections were performed under combined spinal-epidural anesthesia. Continuous monitoring of all the patients was done. Complications, if any, were recorded separately and analyzed. All the results were assessed using SPSS software.

RESULTS

Mean age of the subjects was 34.3. mean gestational age was 38.6 years. Overall complications were seen

in 11 percent of the patients. Transient Tachypnea of the Newborn and Respiratory distress syndrome were seen in 3 percent and 2 percent of the patients respectively. Labor injuries and NICU admission were seen in 2 percent and 1 percent of the patients respectively. Muscle pain, infection, fever and abnormal bleeding were seen in 2 percent, 3 percent, 2 percent and 2 percent of the patients respectively.

Table 1: Prevalence of complications

Complications	Number of patients	Percentage
Present	11	11
Absent	89	89
Total	100	100

Table 2: Distribution of patients according to complications

Complications	Number of patients	Percentage
Transient Tachypnea of the Newborn	3	3
Respiratory distress syndrome	2	2
Labor injuries	2	2
NICU admission	1	1
Muscle pain	2	2
Infection	3	3
Fever	2	2
Abnormal bleeding	2	2

DISCUSSION

The rates of cesarean section have increased significantly in recent decades. In 2008, 6.2 million unnecessary cesarean sections were performed worldwide. This increase in the number of cesarean sections worldwide is related to the improvement of the access of women to this procedure when needed, but it is also related to the indiscriminate use without medical indication. This has culminated in the recent efforts to reduce these rates, while incorporating the obstetric preferences of women. Properly performed cesarean sections that follow an accurate medical indication are life-saving procedures. However, on the one hand, the provision of safe and timely cesarean sections remains a major challenge in countries with high maternal mortality, where they are insufficient; on the other hand, their excess in certain regions results in the challenge of minimizing cesarean sections without clinical indication.⁷⁻¹⁰ Hence; the present study was conducted for evaluating the prevalence of complications of Caesarean section delivery.

Mean age of the subjects was 34.3. mean gestational age was 38.6 years. Overall complications were seen in 11 percent of the patients. Transient Tachypnea of the Newborn and Respiratory distress syndrome were seen in 3 percent and 2 percent of the patients respectively. Our results were in concordance with the results obtained by previous authors who also reported similar findings. In a study conducted by Mascarello KC, authors determined the risks of severe acute maternal complications associated with

cesarean section without medical indication. The results obtained in their meta-analyses indicate that women with cesarean section have a higher chance of maternal death and postpartum infection, but they have a lower chance of hemorrhage. For the blood transfusion outcome, the group effect was not associated with the type of delivery. The quality of evidence was considered low for hemorrhage and blood transfusion and moderate for postpartum infection and maternal death.¹¹ In another similar study conducted by Alshehri KA et al, determined the surgical and obstetrical outcomes and complication for the mother and the neonate after 4 or more CSs and compare it with mothers who had less than 4 previous CSs. Their study group comprised of 394 women who had 4 or more CSs, and their control group comprised of similar number of women who had previous history of two or three CSs. A total of 788 patients were enrolled in their study. They found that adhesions were the most common complications in our study group with a considerable increase in number of both moderate and severe adhesions in the study group compared to the controls. Increasing number of CSs leads to an increase of the complications risk.¹²

Labor injuries and NICU admission were seen in 2 percent and 1 percent of the patients respectively. Muscle pain, infection, fever and abnormal bleeding were seen in 2 percent, 3 percent, 2 percent and 2 percent of the patients respectively. Similar results were reported in the meta-analysis conducted by Keag OE et al, who described the long-term risks and

benefits of cesarean delivery for mother, baby, and subsequent pregnancies. When compared with vaginal delivery, cesarean delivery is associated with a reduced rate of urinary incontinence and pelvic organ prolapse, but this should be weighed against the association with increased risks for fertility, future pregnancy, and long-term childhood outcomes.¹³HägerRME et al determined complication rates after cesarean delivery and to identify independent risk factors for complications.2751 cesarean deliveries were assessed. Altogether, 21.4% of the women had > or =1 complications. The degree of cervical dilation, general anesthesia, low gestational age, and fetal macrosomia were independent risk factors. For operations that were performed at 9 to 10 cm cervical dilation, the complication rate was 32.6% versus 16.8% at 0 cm.Cesarean delivery was associated with a high complication rate.¹⁴

CONCLUSION

A cesarean section is a surgical procedure which can lead to numerous complications in both mother and child. For this reason, cesarean section cannot be considered an equal alternative to spontaneous childbirth, and should be viewed with caution.

REFERENCES

1. Fatusić Z, Kurjak A, Jašarević E, Hafner T. The MisgavLadach method – a step forward in operative technique in obstetrics. *J Perinat Med*. 2003;31:395–398.
2. Habek D, Kulaš T, Karša M. Carski rez po metodi MisgavLadach. *Acta Med Croatica*. 2007;61(2):153–160.
3. Deneux-Tharoux C, Carmona E, Bouvier-Colle MH, Bréart G. Postpartum maternal mortality and cesarean section. *Obstet Gynecol*. 2006;108(3):541–548.
4. Downs SH, Black N. The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *J Epidemiol Community Health*. 1998;52(6):377–384.
5. Lax A, Prince MR, Mennitt KW, Schwebach JR, Budorick NE. The value of specific MRI features in the evaluation of suspected placental invasion. *MagnReson Imaging*. 2007;25(1):87–93.
6. Derman AY, Nikac V, Haberman S, Zelenko N, Opsha O, Flyer M. MRI of placenta accreta: a new imaging perspective. *AJR Am J Roentgenol*. 2011;197(6):1514–1521.
7. Belfort MA. Placenta accreta. *Am J Obstet Gynecol*. 2010;203:430–439.
8. Farchi S, Polo A, Franco F, Di Lallo D, Guasticchi G. Severe postpartum morbidity and mode of delivery: a retrospective cohort study. *Acta ObstetGynecol Scand*. 2010;89(12):1600–1603
9. Kulaš T, Habek D, Karša M, Bobić-Vuković M. Modified MisgavLadach method for cesarean section: clinical experience. *GynecolObstet Invest*. 2008;65:222–226.
10. Kasum M. Carski rez. In: Kuvacic I, Kurjak A, Đelmiš J, et al., editors. *Porodništvo*. Zagreb: Medicinskanaklada; 2009. pp. 482–489.
11. Mascarello KC, Horta BL, Silveira MF. Maternal complications and cesarean section without indication: systematic review and meta-analysis. *Rev Saude Publica*. 2017;51:105
12. Alshehri KA, Ammar AA, Aldhubabian MA, Al-Zanbaqi MS, Felimban AA, Alshuaibi MK, Oraif A. Outcomes and Complications After Repeat Cesarean Sections Among King Abdulaziz University Hospital Patients. *Mater Sociomed*. 2019 Jun;31(2):119-124
13. Keag OE, Norman JE, Stock SJ. Long-term risks and benefits associated with cesarean delivery for mother, baby, and subsequent pregnancies: Systematic review and meta-analysis. *PLoS Med*. 2018 Jan 23;15(1):e1002494
14. Häger RME, Daltveit AK, Hofoss D. Complications of cesarean deliveries: rates and risk factors. *Am J Obstet Gynecol*. 2004 Feb;190(2):428-34.