



ISSN 2278 – 0211 (Online)

Indications and Rate of Caesarean Section- Changing Trends

Rakhi Arya

Assistant Professor, Obstetrics and Gynecology, SMS Medical College, Jaipur, India

Devendra Benwal

Senior Resident, Obstetrics and Gynecology, SMS Medical College, Jaipur, India

Rashmi Gupta

Senior Demonstrator, Preventive & Social Medicine, SMS Medical College, Jaipur, India

Ruchi Singh

Resident, Preventive & Social Medicine, SMS Medical College, Jaipur, India

Abstract:

Objective: To determine and compare the rate and indications for caesarean section at four year interval. Method: Retrospective analysis of caesarean sections done in 2003 and 2007. Results: An increase in the rate of caesarean section was found from 20.03% (1164/5810) in 2003 to 23.80% (1492/6269) in 2007. In 2003 versus 2007, foetal distress [42.96% (500/1164) vs 38.94% (581/1492)], previous history of caesarean section [13.57% (158/1164) vs 24.73% (369/1492)], breech [9.11% (106/1164) vs 8.51% (127/1492)] and non progress of labour [5.67% (66/1164) vs 5.70% (85/1492)] formed the main indications. 58.85% (685/1164) vs 57.84% (863/1492) sections were done in primiparas. In those with fetal distress, no cause of distress was found in 68.20% (341/500) vs 72.63% (422/581) patients, meconium in 24.40% (122/500) vs 15.83% (92/581), loop of cord around the neck in 2% (10/500) vs 9.47% (55/581) and decreased liquor in 5.40% (27/500) vs 2.07% (12/581) of the patients. Intact scar was found in 87.80% patients with previous section operated for various indications as meconium stained liquor, scar tenderness, maternal tachycardia and previous history of two or more than two caesarean sections. Conclusion: A significant increase was found in caesarean sections in those with previous history of caesarean section (11.16%). Majority of caesarean sections were done in primiparas and fetal distress formed the main indication. A 4.02% decrease was found in sections done for fetal distress. No statistically significant difference was found in rate of sections done for breech and non progress of labour

Key words: caesarean section

1. Introduction

The caesarean section rate has increased all over the world for the past 3 decades¹. This has now become an issue of international public health concern. The increased caesarean section rate has ethnic, economic and social impact to the health care system and the whole society. Concern about this rise has been expressed by women as well as those providing maternity services. Obstetrics intervention has risks to both mother and baby. Caesarean section has become much safer over the years, but it cannot replace vaginal delivery in terms of low maternal and neonatal morbidity and less cost²; this statement holds true especially for the developing countries where maternal and perinatal mortality rates are unacceptably high.³ Maternal blood loss is significantly higher in women with caesarean section than normal vaginal delivery and assisted delivery.

2. Methods

This study was conducted in Maulana Azad Medical College, New Delhi. A retrospective audit of all caesarean sections done in 2003 and 2007 was done. Records maintained in the hospital were analysed. The rate and indications of caesarean section were compared.

3. Results

It was found that the rate of caesarean sections has increased from 20.03 % (1164/5810) in 2003 to 23.80 % (1492/6269) in 2007. The 4 main indications for caesarean section were:

- fetal distress
- repeat caesarean section
- breech presentation
- non progress of labour

In 2003 versus 2007, the rate of caesarean sections for foetal distress was [42.96% (500/1164) vs 38.94% (581/1492)], with previous history of caesarean section was [13.57% (158/1164) vs 24.73% (369/1492)], breech [9.11% (106/1164) vs 8.51% (127/1492)] and non progress of labour was [5.67% (66/1164) vs 5.70% (85/1492)].

It is observed that there was a fall in sections done for fetal distress by 4.02% over a period of 4 years. Significant increase is found in sections done in women with previous history of caesarean section (11.16%). There was no significant change in section rate for breech presentation and non progress of labour.

	2003		2007	
	n	%	n	%
Fetal distress	500	42.96	581	38.94
Previous history of caesarean section	158	13.57	369	24.73
Breech	106	9.11	127	8.51
Non progress of labour	66	5.67	85	5.70

Table 1: Main Indications for Caesarean Section

In those with fetal distress, in 2003 versus 2007, no cause of distress was found in 68.20% (341/500) vs 72.63% (422/581) patients, meconium in 24.40% (122/500) vs 15.83% (92/581), loop of cord around the neck in 2% (10/500) vs 9.47% (55/581) and decreased liquor in 5.40% (27/500) vs 2.07% (12/581) of the patients.

	2003		2007	
	n	%	n	%
Meconium	122	24.40	92	15.83
Loop around the neck	10	2	55	9.47
Oligohydramnios	27	5.40	12	2.03
No cause	341	68.20	422	72.63

Table 2: Causes in Caesarean Sections for Fetal Distress

Intact scar was found in 87.80% patients with previous section operated for various indications as meconium stained liquor, scar tenderness, maternal tachycardia and previous history of two or more than two caesarean sections.

Scar intact	97.9%
Scar dehiscence	2.1%

Table 3: Condition of Scar in Women with Previous Caesarean Section

4. Discussion

In an audit conducted in Scotland an increase in caesarean rate was observed from 8.5% in 1975 to 16% in 1994. In this study an increase was observed from 20.03% in 2003 to 23.80% in 2007.⁴

5. Conclusion

The rate of caesarean sections has increased marginally over a period of four years. The increase is mainly due to increase in the rate of caesarean sections for previous caesarean sections. An increased caesarean rate is observed in this institute as this is a tertiary referral centre.

6. Recommendations

It is possible to decrease caesarean rate. This can be done by:

- Using fetal scalp ph sampling to detect fetal distress.
- Vaginal birth after caesarean unless contraindicated.
- External cephalic version in case of breech unless contraindicated.
- Proper use of syntocinon to induce uterine contractions, before defining non progress of labour

7. References

1. The national Sentinel Cesarean Section Audit Report. RCOG Clinical Effectiveness Support Unit 2001.
2. Sachs BP, Kobelin C, Castro MA, Frigoletto F. The risks of lowering the caesarean delivery rate. N Eng J Med 1990; 340: 54-7.
3. Mishra US, Ramanathan M. Delivery related complications and determinants of caesarean section rates in India. Health Policy Plan 2002; 17: 90-8.
4. Gillian McIlwaine Clare Boulton-Jones Susan Cole Chris Wilkinson; Caesarean section in Scotland 1994/5: a National Audit