ORIGINAL ARTICLE

RISING TRENDS OF REPEAT CAESAREAN SECTION WHAT INDICATIONS ARE RECORDED

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ABSTRACT

Objective: To find out the indications of repeat caesarean sections in women with or without labour.

Material and Methods: This descriptive study was conducted in Gynae A Unit of Khyber Teaching Hospital, Peshawar, Pakistan from January 2014 to December 2014. All patients with previous 1 caesarean section who underwent repeat caesarean section in Gynae A Unit were included in the study and their indications were recorded. Other parameters like parity, period of gestation, elective or emergency and with or without labour were also analyzed. Patients with more than 1 caesarean section and primigravida were excluded from the study.

Results: A total of 177 patients underwent repeat caesarean section during the specified period of time. The most common indication of repeat caesarean section was contracted pelvis in 35 (20%) cases followed by suspected scar dehiscence in 29 (16%), fetal distress in 26 (15%) and PROM in 17 (10%). Breach presentation, non progress in 1st stage of labour and nuchal cord were in 12 (7%), 12 (7%) and 10 (6%) cases respectively. Post date pregnancy, oligohydamnios, Bad Obstetrical History (BOH), low biophysical profile, ante partum hemorrhage. Multiple pregnancy, unstable lie, chorioamnionitis, non progress in 2nd stage of labour, obstructed labour, previous myomectomy and diabetes accounted for <5%.

Conclusion: Suspected scar dehiscence, fetal distress and PROM are the indications which can be reduced by experienced obstetricians and close monitoring facilities like continuous electronic fetal monitoring, intrauterine pressure devices, 1:1 midwifery service, fetal scalp blood PH and delivery in a tertiary care hospital.

Key Words: Repeat caesarean section, suspected scar dehiscence, Premature Rupture of Membranes (PROM).

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INTRODUCTION

Caesarean section is the most frequently performed major surgery in modern Obstetrics. Caesarean section is an operation mainly evolved to save a maternal life during difficult child birth. Progressive increase in caesarean delivery is a matter of concern in recent years. The caesarean section rate is increased in all parts of the world, both in developed and developing countries and there is an increase in trend in both primary and repeat caesarean rate[1,2]. The reason mostly related to advanced age, fetal distress, more liberal use of caesarean section for breech, intrauterine growth restriction (IUGR), preterm labour and improved safety of caesarean section[3,4]. The rise in caesarean section rate in the US has been most rapid since 2000 and has been attributed to an increase in the primary caesarean section rate and a decrease in vaginal birth after caesarean[5,6,7]. International concerns over such increases have prompted the World Health Organization to suggest that caesarean section rate should not exceed 15%[8]. With some evidence indicating caesarean section rates above 15% are not associated with additional reduction in maternal and neonatal morbidity and mortality[9]. The decision to perform a primary caesarean section has important implications for maternal morbidity in the current pregnancy, mode of delivery and maternal morbidity in the subsequent pregancies[10,11,12]. Understanding population trends in caesarean section rates, including trends in primary versus repeat caesarean section and potential drivers of these trends provide important insight for reducing the overall caesarean section rate. The choice of a particular method of birth delivery by the pregnant woman is a modern, complex

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and controversial subject. "Caesarean by request" has been implicated as one of the causes for the continual increase in caesarean section rate[13]. The increasing trend is likely to be sustained because women with previous caesarean section are at high risk of repeat caesarean section[14]. In 2007 the rate of caesarean section was highest ever recorded at 32%, representing 1.4 million births and a 53% increase since 1996[15]. This trend encompasses increases in the caesarean section rate for women of all ages, races, geographical areas and gestational ages.

Many theories have been proffered to explain this trend including a decrease in vaginal birth after caesarean (VBAC), an increase in caesarean section performed for maternal request, increase number of high risk expectant mothers, the obstetrical medico legal environment and changes in provider practice patterns[16,17,18]. Studies examining differences in medical risk factors for expectant mothers including obesity have not concluded that changes in maternal risk profile explain the rising caesarean rate[19]. The rates of repeat caesarean birth following a previous caesarean have risen commensurately reaching 83% in Australia[20] and almost 90% in the US[21]. Repeat caesarean now accounts for 28% of all births in the United Kingdom[22]. The aim of our study was to find out the indications of repeat caesarean section in our set up contributing to increasing number of overall caesarean section.

MATERIAL AND METHODS

This descriptive study was conducted in the Department of Obstetrics and Gynaecology "A" unit of Khyber Teaching Hospital, Peshawar. Our hospital provides health care to local community as well as serves as a major referral Centre for public and private hospitals in the province. The study was conducted for a period of 1 year from January, 2014 to December, 2014. All the patients with previous 1 caesarean section who underwent repeat caesarean in Gynae "A" unit were included in the study and their indications were recorded. Patients characteristic like parity, period of gestation, emergency or elective and with or without labour were also noted. Patients with previous more than 1 caesarean section and primigravida were excluded from the study.

RESULTS

There were a total of 177 patients who underwent repeat caesarean section during the study period. Table 1 show that 119 (67%) patients were not in labour at the time of caesarean section while 58 (33%) were in labour. Table 2 shows the parity and period of gestation at the time of caesarean section. 165 (93%) of these patients were multigravida having parity less than 5 while 12 (7%) patients were grand Multigravida with

Table: 1 Distribution of cases according to labour

	No. of cases & percentage
In labour	58 (33%)
Not in labour	119 (67%)

Table: 2 Distribution of cases according to parity and period of gestation

	No. of cases and percentage
Parity	
Multigravida	165 (93%)
Grandmulti	12 (7%)
Period of gestation	
< 37 weeks	23 (13%)
37-40 weeks	127 (72%)
>40 weeks	27 (15%)

Table: 3 Distribution of cases according to emergency/elective

	No. of cases and percentage
Emergency	137 (77%)
Elective	40 (23%)

Table: 3 Distribution of cases according to emergency/elective

Indications	No. of cases & percentage
Contracted pelvis	35 (20%)
Suspected scar dehiscence	29 (16%)
Fetal distress	26 (15%)
PROM	17 (10%)
Nuchal cord	10 (6%)
Breech presentation	12 (7%)
Non progress in 1st stage of labour	12 (7%)
Post date pregnancy	6 (3%)
Multiple pregnancy	6 (3%)
Oligohydamnios	5 (3%)
Chorioamnionitis	4 (2%)
BOH	4 (2%)
Unstable lie/transverse lie	3 (2%)
Low BPP	2 (1%)
Non progress in 2nd stage	2 (1%)
Obstructed labour	1 (0.5%)
Ante partum hemorrhage	1 (0.5%)
Myomectomy	1 (0.5%)
Maternal diabetes	1 (o.5%)

parity more than 5. Regarding period of gestation at the time of caesarean section 127 (72%) patients have gestational age between 37-40 weeks, 23 (13%) patients have gestational age < 37 weeks and 27 (15%) were above 40 weeks of gestation. Table 3 indicates that 137 (77%) cases were performed in emergency while 40 (23%) were elective.

Table 4 shows the indications of repeat caesarean section. The most common indication of repeat caesarean section was contracted pelvis in 35 (20%) cases followed by suspected scar dehiscence in 29 (16%), fetal distress in 26 (15%) and PROM in 17 (10%). Breach presentation, non progress in 1st stage of labour and nuchal cord were 12 (7%), 12 (7%) and 10 (6%) respectively. Post date pregnancy, oligohydamnios, Bad Obstetrical History (BOH), low biophysical profile, ante partum hemorrhage, previous myomectomy and diabetes accounted for less than 5%.

DISCUSSION

In our study, the main indication of repeat caesarean section was contracted pelvis followed by suspected scar dehiscence, fetal distress and PROM. Contracted pelvis is a recurrent cause while suspected scar dehiscence accounting for 16% cases and fetal distress accounting for 15% can be cut off by close monitoring, 1:1 midwifery service, fetal scalp PH levels and intrauterine pressure devices. Patients with PROM can be induced in an attempt to achieve vaginal delivery but we are lacking the facility of vigilant monitoring like intrauterine pressure devices and continuous electronic fetal monitoring because induction of labour in a scarred uterus is associated with increased risk of uterine rupture and postpartum hemorrhage.

Due to fear of uterine rupture during trial of scar, many obstetricians keep low threshold for repeat caesarean section sometimes without clear indication. The complications of scarred uterus include increased risk of uterine rupture, repeat caesarean section, placenta accreta or increta and postpartum hemorrhage. Repeat caesarean section contributes in increasing overall caesarean section rate because future vaginal deliveries among these women will be impossible.

Studies have shown that a first successful vaginal delivery, even if instrumental, increases the chances of vaginal delivery in the subsequent pregnancy while a first delivery by caesarean section has been associated with an increased risk of repeat caesarian section in the subsequent deliveries. Reducing caesarean section rate in nulliparous women might contribute to reduce the rising caesarean section rate. 1st delivery by caesarean section is associated with an increased risk of repeat caesarean section, uterine rupture and postpartum hemorrhage in the subsequent pregnancy. Hence nulliparous women should be offered better chances for vaginal delivery. Women with repeat caesarean section will almost always deliver by elective caesarean section. Therefore, to reduce the rising caesarean section rate, efforts should also be concentrated on the reduction of primary caesarean section rate

This is why some authors have advised Obstetricians to be calm and patient during the 2nd stage of labour in nulliparous women and the indications of primary caesarean section should be absolute.

Implementation of external cephalic version, induction of labour only after 41 weeks of gestation and trial of vaginal birth in maternal and fetal disease may result in decrease in primary caesarean section and hence a decrease in repeat caesarean section rate. Obstetricians should be trained in the art of assisted breach delivery and instrumental delivery to decrease the number of primary caesarean sections.

CONCLUSION

Suspected scar dehiscence, fetal distress and PROM are the indications which can be reduced by bold obstetricians and close monitoring facilities like continuous electronic fetal monitoring, intrauterine pressure devices, 1:1 midwifery service, feta scalp PH monitoring and delivery in a tertiary care hospital.

Limitations

Khyber Teaching Hospital is tertiary care hospital where patients are being referred from the entire province and sometime patients are being referred in such a condition that vaginal birth after caesarean (VBAC) may not be possible and we have to go for repeat caesarean section.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

Akhtar N: Idea and data collection.
Samad A: Statistics and references.
Naz T: Final correction

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.