



THE INCREASING RATIO OF CESAREAN SECTION DELIVERIES: CAUSES AND IMPLICATIONS

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Article Received on 19/04/2020

Article Revised on 09/05/2020

Article Accepted on 30/05/2020

ABSTRACT

Objective: Cesarean Section (CS) rates are becoming a global concern because of their steady increase, lack of awareness about the indications, and associated short and long-term risks. In this study, we offer the rates of cesarean deliveries compared to natural births, and the reasons for the CS deliveries done. **Methods:** This study was a retrospective study of files of obstetricians in their clinics in Damascus, Syria. In this study, we included all pregnant cases who reviewed the clinics between 10 August 2018 to 31 January 2020 for delivery. Furthermore, we collected the files from 1 January 2013 to 30 June 2014 to compare and find if the cesarean section rates have increased. The study included 1521 deliveries and 1608 deliveries in the current and earlier studied periods, respectively. **Results:** We reviewed the number of deliveries during the current studied period and we found a total of 1521 deliveries. 787 cases (52%) of them were done by CS. Moreover, 57% of them (787 cases) had a cesarean section delivery per their request (no indications), while 43% of them had an indication for cesarean section delivery. Moreover, in the earlier studied period, we found 1608 deliveries. 523 cases (33%) of them were done by CS. Furthermore, 44% of them (523 cases) were per mother request compared to 56% of them who had a medical indication. **Conclusion:** From the total deliveries, in the current study period, 52% had CS deliveries, while in the earlier period, 33% had CS deliveries. Furthermore, given the increasing rate of CS in our country and globally, it is very important to focus our attention on the causes of this incidence in order to reduce it, therefore, it is necessary to raise awareness on this issue to reduce the excessive use of this procedure, which may be dangerous for the mother and newborn.

KEYWORDS: Cesarean Delivery; Normal Delivery; Medical Indications, Mother Request.

INTRODUCTION

Rates of cesarean delivery continue to rise worldwide, with recent (2016) reported rates of 24.5% in Western Europe, 32% in North America, and 41% in South America.^[1,2] In the presence of maternal or fetal complications, cesarean delivery can effectively reduce maternal and perinatal mortality and morbidity^[2]; however, an increasing proportion of babies are delivered by cesarean when there is no medical or obstetric indication.^[3] The short-term adverse associations of cesarean delivery for the mother, such as infection, hemorrhage, visceral injury, and venous thromboembolism, have been minimized to the point that cesarean delivery is considered as safe as vaginal delivery in high-income countries^[4], though in low- and middle-income countries, there is an increased risk of adverse short-term maternal outcomes even with cesarean delivery without medical indication.^[1] This notwithstanding, the long-term risks and benefits of cesarean delivery for mother, baby, and subsequent

pregnancies are less frequently discussed with women, and there are few randomized controlled trials (RCTs) addressing the issue.^[5,6] Systematic reviews of observational studies investigating the longer-term associations of cesarean delivery provide conflicting results on risks and benefits for mother and baby.^[7-13]

Maternal preferences are an important influence on decisions about mode of delivery. At present, evidence of longer-term complications of cesarean delivery has not been adequately synthesized to allow fully informed decisions about mode of delivery to be made. The aim of this systematic review and meta-analysis is to summarize the evidence about long-term risks and benefits of cesarean delivery for women, children, and the associations with future pregnancies.

MATERIALS AND METHODS

This study was a retrospective study of files of obstetricians in their clinics in Damascus, Syria. This

study included all pregnant cases who reviewed the clinics between 10 August 2018 to 31 January 2020 for delivery. Furthermore, we collected the files from 1 January 2013 to 30 June 2014 to compare and find if the cesarean section rates have increased. The study included 1521 and 1608 deliveries in the current and earlier studied periods, respectively. All the data were collected by authors and all the names and personal were blinded. Statistical Analysis was done using SPSS 23.0 (SPSS Inc.).

RESULTS

In the current studied period, we found 1521 deliveries (normal or cesarean), while in the earlier studied period, we found 1608 deliveries (normal or cesarean).

Moreover, out of the total deliveries, in the current study period, 787 cases (52%) had CS deliveries, while in the earlier period, 523 cases (33%) had CS deliveries. (Table 1, Figure 1).

Table 1: Distribution of CS and Vaginal Birth deliveries during both studied periods.

	10 August 2018- 31 January 2020		1 January 2013- 30 June 2014	
	N	%	N	%
CS	787	52	523	33
Vaginal Birth	734	48	1085	67
Total	1521	100	1608	100

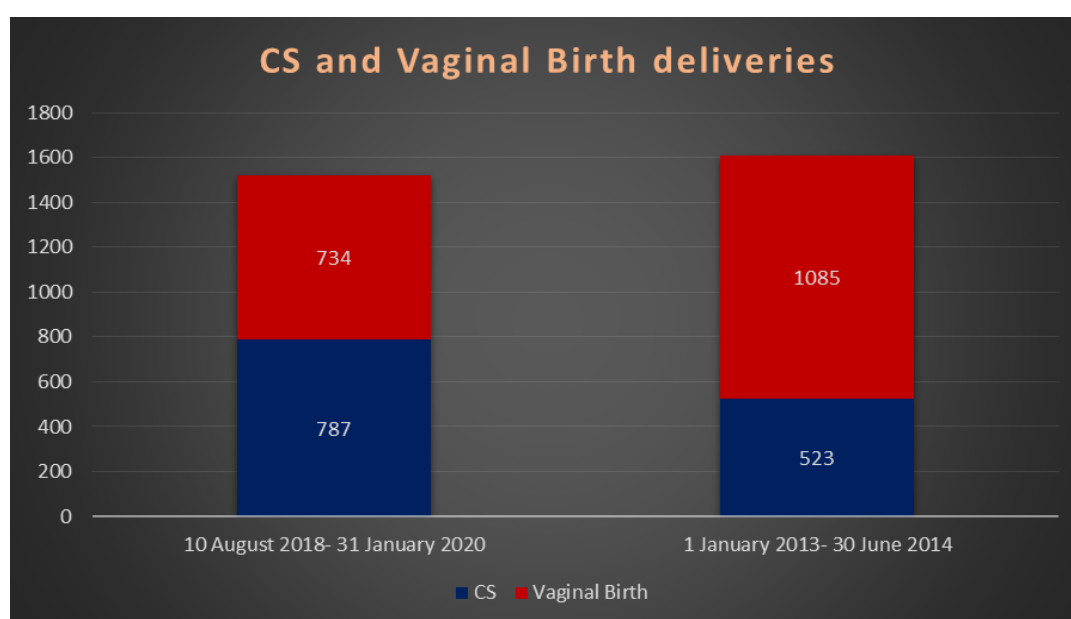


Figure 1: Distribution of CS and Vaginal Birth deliveries during both studied periods.

We reviewed the number of CS deliveries during the current studied period and we found a total of 787 deliveries by CS. 57% of them had a cesarean section delivery per their request (no indications), while 43% of them had an indication for cesarean section delivery.

We also found that during the earlier studied period, 523 cases had CS deliveries with 44% of them per patients request and 56% had it with medical indications. (Table 2, Figure 2)

Table 2: Distribution of CS according to cause during the current and earlier studied periods:

	10 August 2018- 31 January 2020		1 January 2013- 30 June 2014	
	N	%	N	%
CS (Patient Request)	452	57	231	44
CS (Medical Indication)	335	43	292	56
Total	787	100	523	100

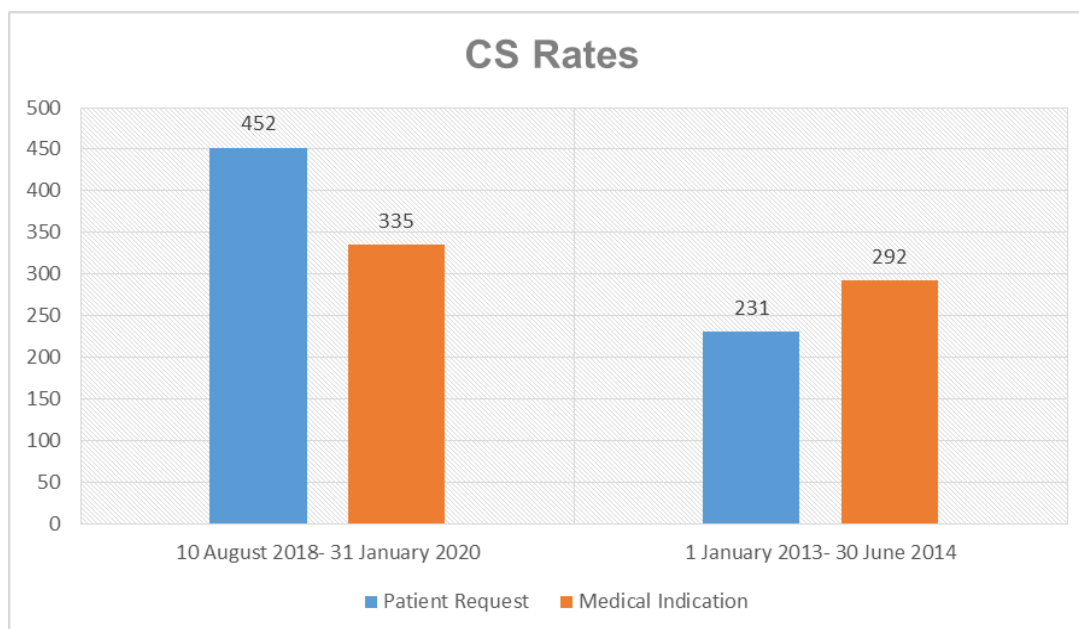


Figure 2: Distribution of CS according to cause during the current and earlier studied periods.

DISCUSSION

Cesarean section is a fetal delivery through an open abdominal incision (laparotomy) and an incision in the uterus (hysterotomy). The first cesarean documented occurred in 1020 AD, and since then the procedure has evolved tremendously.^[14] It is now the most common surgery performed in the United States, with over 1 million women delivered by cesarean every year. The cesarean delivery rate rose from 5% in 1970 to 31.9% in 2016.^[15] Though there are continuing efforts to reduce the rate of cesarean sections, experts do not anticipate a significant drop for at least a decade or two.^[16] While it confers risks of both immediate and long-term complications, for some women, cesarean delivery can be the safest or even the only way to deliver a healthy newborn.

Over the past decades, the unprecedented and significant rise in cesarean delivery rates has increased research and anxiety among healthcare professionals.^[17,18-21] Despite the importance and interest about this issue worldwide, there are only few studies about it. Globally, the latest available data show that nearly 1 in every 5 women in the world now give birth to Caesarean.^[22]

The percentage of cesarean delivery globally has increased during the years and this includes cesarean delivery by mother request as an important factor among other reasons. The average global cesarean section is 18.6%. It ranges between 6% in the less developed regions and 27.2% in the more developed regions. The lowest CS rates are found in Africa (7.3%) and more specifically in West Africa (3%). The highest rates are found in Latin America and the Caribbean (40.5%) and South America has the highest rate of 42.9%, all until 2014.^[19]

In the current studied period, we found 1521 deliveries (normal or cesarean), while in the earlier studied period, we found 1608 deliveries (normal or cesarean).

Moreover, out of the total deliveries, in the current study period, 787 cases (52%) had CS deliveries, while in the earlier period, 523 cases (33%) had CS deliveries.

In 2014, caesarean delivery rates were 43% in South America. It was the highest percentage of global Caesarean section deliveries in that period^[22] compared to 33% in our study in Damascus, Syria in the same year.

CONCLUSION

In the current studied period, we found 1521 deliveries (normal or cesarean), while in the earlier studied period, we found 1608 deliveries (normal or cesarean). Moreover, out of the total deliveries, in the current study period, 52% had CS deliveries, while in the earlier period, 33% had CS deliveries. Furthermore, given the increasing rate of CS in our country and globally, it is very important to focus our attention on the causes of this incidence in order to reduce it.

Compliance with Ethical Standards

Funding: This study was not funded by any institution.

Ethical approval: The names and personal details of the participants were blinded to ensure privacy.

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