

Retrospective Analysis of One Year-Cesarean Sections in a Tertiary Hospital in Turkey: Various Indications of the Unwritten in the Literature and Intraoperative Surgical Morbidities

Türkiye’de Bir 3. Basamak Hastanesinde Bir Yıllık Sezaryenlerin Retrospektif Analizi: Literatürde Yazılı Olmayan Çeşitli Endikasyonları ve İntraoperatif Cerrahi Morbiditeleri

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ABSTRACT Objective: Cesarean section (CS) is the most common surgical intervention in obstetrics and gynecology departments worldwide. The aim of this study was to attract attention to the excess of non-indications of the literature for cesarean sections and to evaluate intraoperative surgical morbidities of one year-cesarean sections in Medeniyet University Göztepe Training and Research Hospital, İstanbul, Turkey. **Material and Methods:** A retrospective analysis was conducted on data from 1370 cesarean deliveries which occurred between 1 January 2011 and 31 December 2011 in the Obstetrics and Gynecology Clinic of the İstanbul Medeniyet University Göztepe Training and Research Hospital. Information was collected from maternity records of patients undergoing cesarean delivery. **Results:** Cesarean sections accounted for 51.1% of all deliveries performed during 2011. The most common reason for CS was repeated CS in annual reports. The last table indicated that intraoperative surgical morbidity of cesarean sections in 2011 was slightly low and the most common one was atony. **Conclusion:** This study results showed that the rate of cesarean deliveries in a tertiary hospital in İstanbul, Turkey had not been within the range recommended by the World Health Organization (WHO) depending on many factors. Fortunately, in a hospital with a so high rate of CS, intraoperative surgical morbidity in cesarean deliveries was inconsiderable.

Key Words: Cesarean section; etiology; morbidity; intraoperative complications

ÖZET Amaç: Sezaryen, (CS), dünyada obstetri ve jinekoloji bölümlerinde en sık yapılan cerrahi girişimdir. Bu çalışmanın amacı; İstanbul Medeniyet Üniversitesi Göztepe Eğitim ve Araştırma Hastanesi Kadın Hastalıkları ve Doğum Kliniği’nde bir yıl içinde yapılan sezaryenlerin literatür dışı endikasyonlarının fazlalığına dikkat çekmek ve intraoperatif cerrahi morbiditelerini değerlendirmektir. **Gereç ve Yöntemler:** İstanbul Medeniyet Üniversitesi Göztepe Eğitim ve Araştırma Hastanesi Kadın Hastalıkları ve Doğum Kliniği’nde 1 Ocak 2011-31 Aralık 2011 tarihleri arasında yapılan 1370 sezaryen ile doğumların verileri retrospektif olarak analiz edildi. Veriler; sezaryen ile doğum yapan hastaların endikasyonları ve eğer operasyon sırasında oluştuysa cerrahi morbiditeleri, hastanenin anahk kayıtlarından toplandı. **Bulgular:** Hastanede 2011 yılında gerçekleştirilen tüm doğumların %51,1’i sezaryen ile doğum şeklindeydi. Bir yıllık raporlarda sezaryen için en sık endikasyon eski CS ve mükerrer CS idi. Son tablo gösterdi ki; 2011 sezaryenleri içinde intraoperatif cerrahi morbidite son derece düşüktü ve en sık intraoperatif cerrahi morbidite atoni idi. **Sonuç:** Bu çalışmanın sonuçları gösterdi ki; Türkiye’de, İstanbul’da, bir 3. basamak sağlık kuruluşunda, sezaryen ile doğumların hızı birçok faktöre bağlı olarak Dünya Sağlık Örgütü (DSÖ) tarafından önerilen sınırlar içinde değildi. Şans olarak, böylesine yüksek sezaryen hızı olan bir 3. basamak sağlık kuruluşunda, intraoperatif cerrahi morbiditesi olan sezaryen ile doğumlar önemsiz derecede az idi.

Anahtar Kelimeler: Sezaryen; etioloji; morbidite; intraoperatif komplikasyonlar

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Currently, cesarean section is the most common surgical intervention in obstetrics and gynecology departments worldwide, including Turkey. In all over the world, whether developing or developed,

rates of cesarean delivery have risen every year and exceeded the most widely recommended upper limit rate of %15 by the World Health Organization (WHO), even if in the United States.^{1,2} Possible reasons for these recent increases are; varying patient demographics, medical-legal pressures, and increasing number of indications for cesarean section. Despite calls from various sectors to reduce the rates, there has been little success in avoiding cesarean section.^{3,4}

Prevention of cesarean section is significant because, as compared with normal spontan delivery, cesarean section is associated with multiple adverse outcomes. Accordingly, numerous reports have been published about the complications of cesarean delivery that include a higher risk of maternal mortality, admission to the intensive care unit, blood transfusion, hysterectomy, internal iliac arter ligation, hemorrhage, infection, thrombosis, and postpartum depression. Complications for neonates include higher fetal mortality rates, higher risk of admission to intensive care unit, fetal respiratory syndrome, pulmonary hypertension, iatrogenic prematurity, and difficulty with bonding and breast feeding.^{5,6}

The aim of this study was to attract attention to the excess of non-indications of the literature for cesarean sections and to evaluate intraoperative surgical morbidities of one year-cesarean sections in Medeniyet University, Göztepe Training and Research Hospital, Istanbul, Turkey and to indicate to high rates of cesarean section in one year than recommended by WHO.

MATERIAL AND METHODS

A retrospective descriptive analysis was conducted on data from 1370 cesarean deliveries which occurred between 1 January 2011 and 31 December 2011 in the Obstetrics and Gynecology Clinic of the Medeniyet University, Göztepe Training and Research Hospital. Information was collected from maternity records regarding to the ages of patients undergoing cesarean delivery, with the various non-indications of the literature for operations, their intraoperative morbidities during the operations.

TABLE 1: Parameters regarding to Cesarean Section.

N=1370		n	%
Age (year)	≤ 18	12	0,87
	18-40	1341	97,88
	≥ 40	17	1,24
Type	Emergency	742	54,2
	Elective	628	45,8
Number	Primary	754	55,0
	Repeated	616	45,0

RESULTS

The number of total annual deliveries in 2011 is 2681. Cesarean sections (CS) accounted for 51,1% of all deliveries performed during 2011, of which 45,8% were elective CS, 54,2% emergency CS (Table 1). This proportion is nearly proper with the results signalized by the Minister of Health in Turkey and therefore, Turkey is the third country with higher rates of cesarean section in all over the world, following Brazil and China.

Despite the persistent policy pursued by the United States (US) against cesarean section, US is suffering from the rate of 32 per cent across the country.⁷

The most common reason for CS was repeated CS in all annual reports. The second most common reason for CS was cephalopelvic disproportion with 19,71%. Results also showed that there were various indications, which we were not familiar, aside from written in obstetrics and gynecology literature (Table 2).

As is known, cesarean section raises complication rates four times higher than vaginal delivery. The last table indicated that atony is the most common intraoperative surgical morbidity in 2011. Totally, intraoperative surgical morbidity in 2011 occurred with the proportion of 1,53% in all cesarean deliveries (Table 3). As compared with literature datas (~12-14%), it seems that present rate is slightly lower.^{8,9}

CONCLUSION

This study results showed that the rate of cesarean section in a tertiary hospital in Istanbul, Turkey

had not been within the range recommended by the WHO.

If we consider that these labors were managed by only obstetricians, specialists and assistants but not midwives, why the rate of our cesarean section is so high and increase over the years?

TABLE 2: Various non-Indications of the literature for Cesarean Section.

N=1370	n	%
Repeated cesarean	481	35,11
Cephalopelvic disproportion	270	19,71
Acute fetal distress	183	13,36
Two or more repeated cesarean	135	9,85
Malpresentations	96	7,01
Failure to progress	48	3,50
Preeclampsia/eclampsia	34	2,48
Multiple pregnancies	31	2,26
Intrauterine growth restriction	15	1,09
Decolman placenta	12	0,88
Placenta previa	11	0,80
Postmature	9	0,66
Premature	7	0,51
Condyloma accuminata	7	0,51
Previous uterin surgery	7	0,51
IVF pregnancy	5	0,36
Fetus with anomaly	4	0,29
Cord presentation	3	0,22
Oligo-anhidramnios	3	0,22
Premature rupture of membranes	2	0,15
Vaginismus	2	0,15
Anal fissure	1	0,07
Epilepsy	1	0,07
Cholestasis	1	0,07
Takayasu arteritis	1	0,07
Pseudotumor cerebri	1	0,07

TABLE 3: Intraoperative surgical morbidites.

N=21		n	%
Atony	Uterin artery ligation	6	28,5
	Hipogastric artery ligation	2	9,5
	B-lynch suture	1	4,8
	Total abdominal hysterectomy	1	4,8
Intraabdominal Hematoma		3	14,3
Subtotal Hysterectomy	Placenta acreata	2	9,5
	Placenta percreata	1	4,8
Uterin Rupture		2	9,5
Bladder Injury		2	9,5
Partial uterin resection in consequence of placenta percreata+placement of IU balloon tamponade		1	4,8

Probably, the new severe conditions related to medical-legal policies in the field of medicine in Turkey and the high proportion of repeated and elective cesarean section with inappropriate indications are the most current factors in this rise.^{10,11}

Fortunately, in a hospital with a so high rate of CS, complicated cesarean deliveries are inconsiderable. Otherwise, high CS rates also impose an unnecessary financial burden on the health system.

In conclusion, a more accurate evaluation of the patients incoming to labor could help to decrease current unacceptable high rates of CS and to decrease non-indications of the literature. An also new strategies should be improved by the Ministry of Health immediately. This could be achieved by selection of cases in which there is a real need for CS and encourage the patients for vaginal delivery after CS in appropriate indications.

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