Vaginal Birth or Cesarean Section: Recommendations of Women Who Delivered Via Both Methods

Vajinal Doğum veya Sezaryen: Her İki Yöntemle de Doğum Yapmış Bayanların Önerileri

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Özet

Amaç: Hem vajinal doğum hem de sezaryen ile doğum yapmış kadınların hangi doğum şeklini önerdikleri ve bu önerilerin sebeplerinin belirlenmesi. Gereç ve Yöntem: Çalışmaya hem vajinal doğum hem de sezaryen ile doğum yapmış olan ve ortalama yaşları 42.1 ±7.6 olan toplam 204 kadın dahil edildi. Vajinal ve sezaryen doğum ile ilgili deneyimlerini sorgulayan bir anket hazırlandı. Bulgular: Sezaryen endikasyonları, anne tercihi (40) ve obstetrik endikasyonlardı (164). İkiyüzdört kadından 129'u (% 63.2), diğer kadınlara vajinal doğum önermiştir. Vajinal doğum eylemi sırasında zor doğum yaşayan katılımcılar, vajinal doğumu "kolay" olarak kabul edenlere göre daha fazla sezaryen önermişlerdir (%65.4'e karşılık %10.4, p <0.01). Eğitim düzeyi (p = 0.011) yükseldikçe sezaryen önerisi verilmesi de anlamlı ölçüde artmaktadır. Vajinal doğumu önerenlerin belirttikleri en sık neden postpartum rahatlık(% 64.3), sezaryen önerenlerin belirttikleri en sık neden ise eylemin kolayca sonlanmasıdır. (% 53.3). Obstetrik endikasyonlar nedeni ile sezaryen doğum yapan kadınların çoğunluğu (% 69.6) vajinal doğumu önermiştir, oysa ki anne tercihi nedeni ile sezaryen doğum yapan kadınların büyük kısmı (% 62.5) sezaryen doğumu önermiştir. Tartışma: Her iki yöntem ile doğum yapmış kadınlar arasında vajinal doğum önerenler % 63.2 oranındadır, en sık neden postpartum konfordur. Sezaryen önerenler, vajinal doğum esnasındaki ağrıya göre daha kolay tolere edilmesi nedeniyle bu tavsiyede bulunmuşlardır.

Anahtar Kelimeler

Doğum Şekilleri; Sezaryen; Vajinal Doğum; Hasta Önerileri

Abstract

Aim: To determine which method is recommended by women who have delivered via both methods and their reasons for this recommendation. Material and Method: The study included 204 women, mean age was 42±7.6 years with history of both vaginal and cesarean delivery. A questionnaire was prepared about experiences with vaginal and caesarean delivery. Results: Reasons for cesarean section were maternal preference (40), and obstetric indications (164). Of the 204 women, 129 (63.2%) recommended vaginal delivery to other women. More participants who experienced difficult labor during vaginal delivery recommended cesarean delivery than those who considered their vaginal delivery "easy" (65.4% vs.10.4%, p<0.01). Recommendation of cesarean section increased significantly with the level of education (p=0.011). The most frequent reason for recommend vaginal delivery was postpartum comfort (64.3%), for recommend cesarean delivery were easy labor (53.3%). Most women who delivered via cesarean section due to obstetric indications (69.6%) recommended vaginal route, whereas most who chose cesarean delivery (62.5%) recommended cesarean section. Discussion: Among women who had delivered via both methods, 63.2% of those recommended vaginal delivery due to primarily postpartum comfort. Patients who recommend cesarean section regarded it as easier primarily because of pain during vaginal delivery.

Keywords

Routes of Delivery; Cesarean Section; Vaginal Delivery; Patient Recommendation

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Introduction

Cesarean delivery is a common surgical procedure performed by obstetricians in developed countries. The percentage of deliveries via cesarean section has increased significantly in both developed and developing countries during the last decade.[1] One large population based study found that, in the USA, the percentages of live births by cesarean delivery increased from 12% in the late 1990s, to 17% in the early 2000s, and to 30.3% in 2005.[2] Some of the possible reasons for this dramatic increase may be increased maternal preference, fear of judicial litigation, financial incentives, increasing number of older and obese women, changing patterns of clinical practice and decreasing expertise of obstetricians in performing assisted vaginal deliveries. As vaginal delivery is considered preferable to cesarean section, international obstetric societies have attempted to decrease demand for the maternal preference and obstetric indications. For example, the International Federation of Gynecology and Obstetrics (FIGO), the American Congress of Obstetricians and Gynecologists (ACOG) and the National Institutes of Health (NIH) of the United States of America (USA) have published guidelines for both health professionals and patients to increase awareness of the advantages of vaginal delivery.[3-5] In 2013 ACOG committee concluded that, cesarean delivery on maternal request should not be motivated by the unavailability of effective pain management. They also reported that cesarean delivery particularly is not recommended for women desiring several children.[6]

The route of first birth can determine the routes of subsequent deliveries. Normally, women who give birth vaginally during the first delivery are expected to do so again during subsequent deliveries. Furthermore, in the USA, trial of labor after cesarean (TOLAC) is considered a reasonable approach. However, an unpleasant experience during labor, increased maternal age and desire to avoid pain may encourage women to deliver via cesarean section. Therefore, in addition to obstetric indications, patient's previous experiences and feelings may be important in her decision on route of next delivery. To assess the reasons that women who have delivered via both methods recommend cesarean or vaginal delivery, we administered questionnaires to a cohort of these women .

Material and Method

The study is a cross-sectional survey performed at Baskent University Istanbul Hospital between May 2011 and September 2013 which included 204 outpatients with a history of both vaginal and cesarean delivery. Women were included if they delivered via cesarean section after spontaneous vaginal delivery/deliveries for previous pregnancy/pregnancies. Women invited to participate in the survey during their visit by their attending physician and the questions were asked by the physician and the answers were recorded. Patients who gave their first birth via cesarean section and second birth via vaginal delivery (Patients who underwent TOLAC) were excluded. Patients aged >60 years, pregnant women, and women who had given birth to stillborn or malformed infants were excluded from statistical analysis to minimize recall bias. There was no women who conceived through artificial reproductive technology. All participants provided written informed consent, and the study protocol was approved by our institutional review board.

Questionnaire

All participants were asked to complete a pilot questionnaire by gynecologist about their experiences with vaginal and cesarean delivery. The questionnaire consisted of 17 questions. The first nine questions addressed demographic factors and obstetric history, including parity, gravidity, age at first delivery, and routes of delivery. The remaining eight questions addressed labor history and recommended route of delivery.

After the demographic questions, we asked about her first vaginal delivery experience. We asked her "If you think about the entire peripartum period, how would you describe your first vaginal delivery? Difficult or easy" If she answered "difficult", we asked the patient the primary reason why she thinks so. Next question was about cesarean delivery. We asked the patients if it was their own decision to deliver by cesarean section? If the answer was "yes" then we asked "If cesarean was your decision, what was the primary reason for your choice?" If it was not the patient's decision, we asked to learn the reason why the cesarean was done.

Next we asked the patients if cesarean section was done after initiation of labor or not. Finally we asked the participiants "Having experienced both routes of delivery, which would you recommend to mothers to be and primary reason for this recommendation".

Statistics

Data obtained from the answers were summarized with descriptive statistics. Obstetric indications and reasons of maternal preference for cesarean section were listed. Categorical variables were compared using the chi-square test and continuous variables were compared using Student's t test. $P<0.05$ was considered significant. All statistical analyses were performed using SPSS version 11.5 software package (SPSS Inc., Chicago, IL)

Results

The mean (SD) age of the 204 included participants was 42±7.6 years (range, 30-58 years). Participant characteristics are listed in Table I. Most participants were elementary or high school graduates. Median gravida was 3, and median parity was 2. Before cesarean section, 155 (75.9%) participants had one, and 49 (24.1 %) had two, vaginal birth experiences.

Mean age at the time of cesarean section was 31.1 ±4.8 years. The reasons for cesarean section were classified as maternal preference by 40 women, including 31 who cited an unpleasant experience during vaginal delivery, and obstetric indications by the other 164. The most frequent obstetric indications were doctor's recommendation, fetal distress, and abnormal presentation (Table II).

The mean age at second delivery was 25.8±3.9 years for women who delivered vaginally and 30.08 ±4.76 years for those who delivered by cesarean section ($p< 0.01$).

Of the 204 women, 129 (63.2%) recommended vaginal delivery to other women. Ninety-seven women (48.1%) considered their first labor during vaginal route to be "difficult", because of painful or prolonged labor, episiotomy problems or vacuum/for-

Table I .Patient characteristics

	n (%)
Age (years)	
<40	57 (28)
41-50	89 (43.6)
>50	58 (28.4)
Gravidity	
2	80 (39.2)
3	56 (27.5)
>3	68 (33.3)
Parity	
2	136 (66.6)
3	50 (24.5)
>3	16 (7.9)
Educational status	
Elementary	84 (41.2)
High school	80 (39.2)
University	40 (19.6)
Number of vaginal deliveries	
1	155 (75.9)
2	49 (24.1)

Table II. Indications for caesarean section in 204 women with a previous vaginal delivery

	n	%
Obstetric Indication	164	
Doctors' recommendation[a]	47	28.7
Fetal distress	30	18.3
Abnormal presentation [b]	30	18.3
Hypertensive state during pregnancy	19	11.6
Placentation abnormality[c]	12	7.3
Prolonged labor	12	7.3
Previous uterine scar[d]	8	4.9
Multiple pregnancy	6	3.6
Maternal Request	40	
Unpleasant vaginal delivery experience	31	77.5
Desire for caesarean experience	5	12.5
Increased maternal age	4	10
Total	204	

[a]No further explanation was given
[b]Breech presentation/transvers situs
[c]Placenta previa, abruption
[d]Due to myomectomy or cervical operation

ceps use. A higher percentage of participants who experienced difficult labor during vaginal delivery recommended cesarean delivery than those who considered their vaginal delivery "easy" (65.4% vs. 10.4%, p <0.01; Table III).

There was a significant relationship between participant level of education and preference for cesarean section (p=0.011). However, there was no relationship between participant's present age and delivery route preference (Table III).

Reasons for delivery method recommendations were also assessed. Among women who recommended vaginal delivery, the most frequent reason cited was postpartum comfort (64.3%), whereas, among those who recommended cesarean delivery, the most frequent reasons were easy labor (53.3%) and less pain (33.3%) (Table III).

Table III.Comparison of women's characteristics and reasons for preference of delivery type

		Recommended method of delivery		
		Vaginal delivery (n=129)	Caesarean section (n=75)	P value
		n (%)	n (%)	
Subject age (years)	<40	37 (64.9)	20 (35.1)	0.60
	40-50	58 (65.1)	31 (34.9)	
	>50	34 (59.6)	24 (40.4)	
Caesarean indication	Maternal request	15 (37.5)	25 (62.5)	0.016
	Obstetric indication	114 (69.6)	50 (30.4)	
Reasons for maternal preference	Natural	16 (12.4)	0	<0.001
	Less pain	20 (15.6)	25 (33.3)	
	Facilitates interaction	7 (5.4)	0	
	Easier	3 (2.3)	40 (53.3)	
	More comfortable after the delivery	83 (64.3)	10 (13.3)	
Previous vaginal birth experience	Difficult	34 (34 .6)	64 (65.4)	<0.001
	Easy	95 (89.6)	11 (10.4)	
Educational level	Elementary school	66 (78.6)	18 (21.4)	0.011
	High school and more	63 (52.5)	57 (47.5)	
Initiation of labor before caesarean	Yes	30 (71.4)	12(28.6)	0.454
	No	99 (61.2)	63 (38.8)	

SD: Standard deviation

The indication for cesarean significantly (p=0.016) influenced the participants' recommendation of delivery route (Table III). Most participants who underwent cesarean delivery due to obstetric indications (69.6%) preferred the vaginal route; whereas most women who chose cesarean delivery (62.5%) recommended cesarean section. However, the percentages of participants who recommended vaginal delivery following an elective cesarean section (61.2%) and cesarean section following an attempt to vaginal delivery (71.4%) did not differ significantly (Table III).

Discussion

Manusco et al. studied reasons for increased cesarean rates on the aspect of maternal request and stated that the reasons were multifactorial consisted health system infrastructure and socio-cultural conditions.[7] Studies have found that 6% of women pregnant with their first child and 13.3% of non-pregnant women stated a preference for cesarean section.[8-9] The primary reasons included fear of vaginal birth, bypassing risks to the fetus from vaginal birth, and protecting the lower genital tract from trauma.

Another study found that 23.8% of women who delivered vaginally said they would prefer delivering by cesarean section for their next pregnancy.[10] When asked six months after giving birth, 79% of women (19 of 24) who delivered by cesarean section stated that they would prefer cesarean section again. In that study, 30% of women requested cesarean section for their next delivery. They found that advanced maternal age, higher monthly income, living in a metropolis, and pregnancy

via assisted reproductive technologies were the reasons they preferred cesarean section. In general, unpleasant vaginal birth experience, difficult and long duration of labor, episiotomy site discomfort, and advanced age were among the most common reasons for preferring cesarean delivery in subsequent pregnancies.

Similarly, we found that 75 of 204 women (36.8%) who had experienced both routes of delivery would recommend a cesarean section for other women.

We also found that older age at the time of second pregnancy increased the likelihood of cesarean delivery, due primarily to increases in obstetric complications and doctors' recommendations. Elective cesarean section has been found to be associated with older maternal age. In addition, vaginal delivery at an older age has been found to be associated with an increased extra risk of stress urinary incontinence, caused by direct injury to the pelvic floor and partial denervation, increasing cesarean rates in older primiparous women.[11] Moreover, reasons for women in developed countries to prefer cesarean include fear of labor, avoidance of genital trauma that may lead to later sexual dissatisfaction and protection of the fetus.[12] Our study, however, did not find a significant relationship between maternal age at the time of the study and delivery route preference.

We also found that an increased preference for cesarean delivery was associated with an increased level of education, perhaps due to increased knowledge about the risks and benefits of each mode of delivery. However, previous results showing a relationship between level of education and choice of cesarean delivery in the absence of any medical indication found that most of these women did not have detailed knowledge about the benefits and risks of these modes of delivery.[13]

Most women who chose vaginal delivery did so because they regarded vaginal birth as more natural and had the advantage of immediate communication with the baby. In contrast, those who chose cesarean delivery did so because they regarded this procedure as more comfortable and relatively painless.

We also found that women who requested a cesarean had a significantly higher preference for this method than women who underwent cesarean delivery for obstetric reasons, with the former group stating that their preference was due primarily to a history of difficult vaginal delivery and less pain after cesarean section. In contrast, the majority of women who underwent cesarean delivery for obstetric reasons recommended vaginal birth as most had an easier labor experience. The rate of preference for a vaginal delivery was similar in women who started labor with the intention of delivering vaginally but who had to undergo a cesarean section and in women who underwent an elective cesarean delivery.

The major limitation of our study was recall bias, with findings based on the participants' subjective recollections, not on medical records. We did not have information about pain management during labor. In conclusion, we found that, among women who delivered via both routes, 63.2 % of them recommend vaginal delivery, those who recommended vaginal delivery did so because of postpartum comfort, whereas those who recommended cesarean delivery regarded it as easier, due mostly to pain during vaginal delivery. Pain management during labor may make vaginal delivery more comfortable and increase women's preference for this method of delivery. Further studies are needed on this issue.

Conflict of Interest

We disclose that, we do not have any financial relationship with a biotechnology manufacturer a pharmaceutical company, or other commercial entity that has an interest in subject matter or materials . No author has any potential conflict of interest.

Competing interests

The authors declare that they have no competing interests.

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