

Rates and Indications of the Cesarean Births in Izmir Konak Maternity Hospital Between 1983-1989

İZMİR KONAK DOĞUMEVİ'NDE 1983-1989 YILLARI ARASINDA
SEZARYEN ORANLARI VE ENDİKASYONLARI

Dr.Murat CELİOGLU*, Doç.Dr.Onur KARABACAK**,
Süheyla GÜNGÖR***, Dr.Cemal KORUR***, Dr.Oktay ERTEN*

*Department of Obstetrics and Gynecology, 9 Eylül University, izmir,

"Department of Obstetrics and Gynecology, Gazi University, Ankara,

***izmir Konak Maternity Hospital, izmir, TURKEY

SUMMARY

The rates and the indications of cesarean section deliveries through the years 1983-1989 in Konak Maternity Hospital, Izmir, Turkey, were presented. The average cesarean birth rate was 9.4 percent. During these seven years, the cesarean birth rates progressively increased from 6.2 percent to 15.1 percent ($p<0.01$). The indications of total cesarean births were as follows: mechanical causes: 16.1%, uterine causes: 27.5%, fetal presentation abnormalities: 15.9%, fetal asphyxia: 13.8%, other fetal indications: 13.5% placental causes: 7.9%, maternal causes: 4.4%. Perinatal mortality rate was 32 per 1000 births and the cesarean birth rate was 7.6% for 1985-1986.

Key Words: Cesarean section, Cesarean birth rates,
Perinatal mortality rates

Anatolian J Gynecol Obst 1993, 3:37-39

The cesarean birth rates have increased dramatically in several countries from mid 1960s up to day. While the cesarean birth rate was 5 percent in 1964, this rate exceeded 25 percent in 1988 in United States (1). This trend is similar to the other developed and developing countries (2-6). Although indications may be different, increased sectio rates have been associated with dramatically decreased perinatal mortality rates. But effect of sectio rate on perinatal mortality rate has been questioned today (1,3,7-13).

Increasing rates in 1960s and 1970s were thought to be the results of the operation security due to medical and surgical progresses (7,8). But it is difficult to understand the upward trend during the last de-

Geliş Tarihi: 2.4.1992

Kabul Tarihi: 18.4.1992

Yazışma Adresi: Dr.Murat CELİOGLU
149. Sok. No 15/18
35360 Basınsitesi-izmir -TURKEY

Anatolian J Gynecol Obst 1993, 3

ÖZET

Türkiye'nin batısında yer alan İzmir kenti, Konak Doğumevi'nde 1983-1989 yılları arasındaki sezaryen oranları, endikasyonları ve bunların yıllara göre dağılımları sunuldu. Tüm doğumlar için sezaryen oranı %9.4 idi. Bu yedi yıllık süreç içinde sezaryen oranlarında 1983de %6.2'den 1989'da %15.1'e ulaşan progresif bir artış saptandı ($p<0.01$). Toplam sezaryenlerde endikasyonların dağılımı şöyledi; mekanik nedenler % 76.7, utérin nedenler %27.5, fetal prezantasyon anomalileri %15.9, fetal asfiksia % 13.8, diğer fetal nedenler % 13.5, plasental nedenler %7.9, maternai nedenler %4.4. 1985-1986 yılları için saptanan perinatal mortalite oranı %0.32 idi ve bu iki yıl için sezaryen oranı % 7.6 olarak saptandı.

Anahtar Kelimeler: Sezaryen, Sezaryenle doğum oranları, Périnatal ölüm oranları

T Klin Jinekol Obst 1993, 3:37-39

cade. Some authors have proposed that sectio rates for several countries are high but there is no accepted opinion which is the optimal rate.

Although the reports from several countries review the cesarean indications and rates, there is no reliable data for Turkey. The purpose of the present study was to determine national data in the western part of Turkey, and to establish a source for future studies.

MATERIALS AND METHODS

The Konak Maternity Hospital of Izmir is not a referral hospital, serves to inner city and countryside of this region. The records of cesarean births which were performed in this hospital from 1st January 1983, to 31st December 1989 were reviewed and analyzed. During this period, there was no standard protocol for the indications of cesarean section. Real-time ultrasonography, radiologic and endocrinologic investigations were carried out but antepartum electronic fetal monitoring was not used.

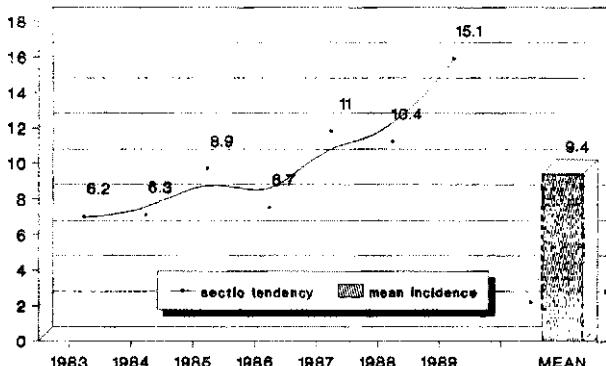
Cesarean birth rate and indications according to the years were studied. Indications for cesarean deliveries were defined in seven major diagnostic categories:

1. Mechanical causes: Cephalopelvic disproportion, prolonged delivery,
2. Uterine causes: Previous sectio, cervical distocia, others,
3. Fetal présentation abnormalities: Primar breach presentation, oblique-transverse oblique-transverse presentation, deflexion abnormalities, multiple pregnancies,
4. Fetal asphyxia: Intrauterine asphyxia,
5. Other fetal indications: Postdatism, cord prolapsus, premature rupture of membranes, others,
6. Maternal causes: Older primigrávida, subfertility, others,
7. Placental causes: Placenta previa, abruptio placenta.

RESULTS

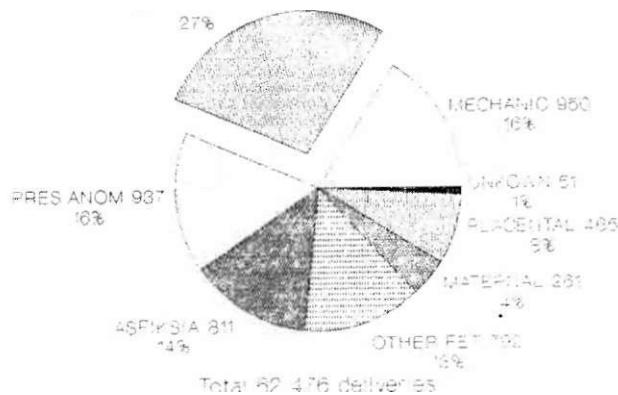
Between 1983 and 1989 Inclusive, the number of births in İzmir Konak Maternity hospital were 62476 and 5883 by of them were cesarean section. Overall cesarean section rate was 9.4 percent. When it is analysed according to years, cesarean section rates had increased after 1985 ($p<0.01$) (Figure 1). Indications of cesarean sections were uterine causes (27.5 percent), mechanical causes (16.1 percent), fetal presentation abnormalities (15.9 percent), fetal asphyxia (13.8 percent), other fetal indications (13.5 percent), placental causes (7.9 percent), maternal causes (4.4 percent). The indications of 51 patients (0.9 percent) were unclear. Figure 2 shows the distribution of total indications. Figure 3 shows this indications throughout the years.

When the subgroups were analysed, previous cesarean as an indication was 25.7 percent of total indications. Moreover, cephalopelvic disproportion (16.3 percent), postdatism (10.1 percent), primipara breech presentation (9.5 percent) were important rates.



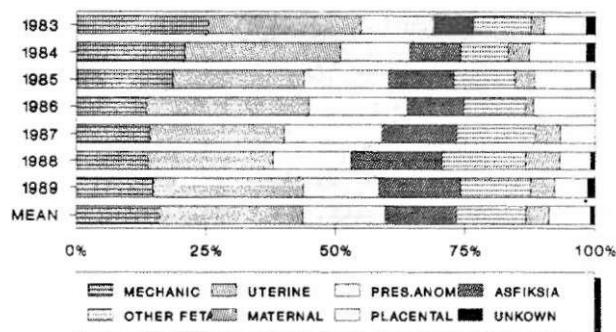
Izmir maternity hospital 1983-1989

Figure 1. Distribution of sectio incidence throughout years.



Izmir maternity hospital 1983-1989

Figure 2. Distribution of cesarean section indications.



Izmir maternity hospital 1983-1989

Figure 3. Distribution of indications throughout years.

Perinatal mortality rate was investigated only for 1985-1986. In these two years the number of deliveries and cesarean sections were 16373 and 1249 respectively, and sectio rate was 7.6 percent. At the same time perinatal mortality was 524 and perinatal mortality rate was 32 per 1000 births.

DISCUSSION

It is a general opinion that the increase in cesarean birth rates are associated with decrease in perinatal mortality rates (7,8). This is true but the other factors such as better prenatal care, better health care, electronic fetal heart rate monitoring and advances in neonatal care may also be contributed. Although the different in national cesarean rates have been reported recently, an upward trend has been observed consistently in both of the developed and developing countries during the past two decade. The national differences are mainly due to divergent attitudes and approaches to obstetrical problems and some of the indications are not clear-cut for the operation. So, they are influenced by physicians payment practices, medical malpractice, environment, physician's training, socio-economic status of studies population and also individual characteristics of physician (2,14-18).

In 1983, O'Driscoll and Folley reported their original results. The authors searched for the relationship between cesarean births and perinatal mortality rates in USA and Ireland (Dublin) between 1965-1980. They concluded that their results did not support the contention that the expansion in cesarean birth rates has contributed significantly to reduced perinatal mortality in 1970s and early 1980s. We have to consider that these results reflect perinatal mortality but not perinatal morbidity. Following this publication, several reports have questioned this increasing trend in cesarean birth rates and if it is possible, to lower these rates without adverse effects on the outcome for mother or infant in 1980s years. Pilot studies and programmes have been very successful in developed countries (1,10,11,13,14). New reports yet have come from developing countries. In a provincial hospital of Zimbabwe, cesarean birth rate has been decreased from 16.8 percent to 8.0 percent with decreasing perinatal mortality rate during two year period (12). Most of these studies have stressed that oxytocin can be used with the greatest confidence where it is needed.

The mean cesarean birth rate 9.4 percent, in our study, is below the rates of several developed and developing countries. During seven years, although there was no difference in obstetrical care and decision making policy, there was a significant elevation in cesarean birth rates. This evaluation can be attributable to the development in care to prevent perinatal morbidity.

In their study, analysing 123837 births, Bottoms and colleagues classified the reasons for cesarean delivery under five categories: Dystocia (33.4 percent), previous cesarean section (23.1 percent); breech presentation (18.8 percent), fetal distress (13.2 percent), and other indications (11.2 percent) (19). The authors concluded that especially dystocia and previous cesarean section indications needed to be considered and possibly reassessed.

When these results are compared with ours, indication rates of previous cesarean, fetal distress, dystocia are similar but breech presentation rate is somewhat higher in Bottom's group. Taffel et associates concluded that indication of previous cesarean history (48 percent) and dystocia (29 percent) play major role in the increase of cesarean rate, 6.2 percentage points between 1980 and 1985 in the United States (15).

In our study, previous cesarean history, breech presentation and postdatism are the main indications which are responsible for elevated cesarean rate trend during the seven years.

It is difficult to achieve data about perinatal mortality in our country because of the insufficient registrations and we only could ascertain the perinatal mortality rates for years 1985-1986. We hope that these figures could form a basis for the following studies from other parts of the country.

REFERENCES

1. Sanchez-Ramos L, Kaunitz AM, Peterson HB. Reducing cesarean sections at a teaching hospital. *Am J Obstet Gynecol* 1990; 163:1081-8.
2. Rotzon FC. International differences in the use of obstetric interventions. *JAMA* 1990; 263:3286-91.
3. Nilsen ST, Bergsjö P, Löckling A, et al. A comparison of cesarean section frequencies in two Norwegian hospitals. *Acta Obstet Gynecol Scand* 1983; 62:555-61.
4. Rodrigues J. Urban hospital cesarean section delivery rates in Paraiba State, Brazil 1977-1981. *Am J Public Health* 1988; 78:704-5.
5. Moldin P, Hökegard KH, Nielsen TF. Cesarean section and maternal mortality in Sweden 1973-1979. *Acta Obstet Gynecol Scand* 1984; 63:7-11.
6. Thiery M, Derom R, Buekens P. Frequency of cesarean deliveries in Belgium. *Biol Neonate* 1989; 55:90.
7. Cunningham FG, MacDonald PC, Gant NF. *Williams Obstetrics* 8th Ed. Prentice-Hall International Inc. USA: Cesarean section and cesarean hysterectomy 441-59.
8. O'Driscoll K, Folley M. Correlation of decrease in perinatal mortality and increase in cesarean section rates. *Obstet Gynecol* 1983; 61:1-5.
9. Philipson EH, Rosen MG. Trends in the frequency of cesarean births. *Clin Obstet Gynecol* 1985; 28(4):691-5.
10. Flamm BL, Lim OW, Jones C, et al. Vaginal birth after cesarean section of a multicenter study. *Am J Obstet Gynecol* 1988; 158:1079-84.
11. Turner MJ, Brassil M, Gordon H. Active management of labor associated with a decrease in the cesarean section rate in nullipara. *Obstet Gynecol* 1988; 71:150-4.
12. Muylder XD, Thiery M. The cesarean delivery rate can be safely reduced in a developing country. *Obstet Gynecol* 1990; 75:360-4.
13. Myers SA, Gleicher N. A successful program to lower cesarean-section rates. *N Engl J Med* 1988; 319:1511-6.
14. Porreco RP. Meeting the challenge of the rising cesarean birth rate. *Obstet Gynecol* 1990; 75:133-6.
15. Taffel SM, Placek PJ, Liss T. Trends in the United States Cesarean Section rate and reasons for the 1980-85 rise. *Am J Public Health* 1987; 77:955-9.
16. Gould JB, Davey B, Stafford RS. Socio-economic differences in rates of cesarean section. *N Engl J Med* 1989; 321:233.
17. Berkowitz GS, Fiarman GS, Majica MA, et al. Effect of physician characteristics on the cesarean birth rate. *Am J Obstet Gynecol* 1989; 161:146-9.
18. DeMatt RK, Sandmine HF. The Green Bay cesarean section study. I. The physician factor as a determinant of cesarean birth rates. *Am J Obstet Gynecol* 1990; 162:1593-602.
19. Bottoms SF, Rosen MG, Sokol RJ. The increase in the cesarean birth rate. *N Engl J Med* 1980; 302:559-63.