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Parental attitudes and practices about circumcision in Izmir, Turkey

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Abstract

Parental attitudes and practices about circumcision in Izmir, Turkey

Background: The current study was carried out to investigate parental attitudes and practices about circumcision in Izmir, Turkey.

Methods and Findings: This study was performed in two training hospitals in Izmir. Questionnaires were filled out in face-to-face interviews with parents of 624 boys while waiting for their child's well-child examination. Circumcision was generally performed by physicians (63.5%), in hospital conditions (52%), and primarily due to religious reasons (50.4%). We observed a statistically significant association between age of circumcision and educational status of both parents ($p<0.05$). Likewise, as the education level of both parents increased, the rate of circumcision performed by physicians also increased ($p<0.05$).

Conclusions: The traditional approach seems to be continued and circumcision is often performed due to religious reasons in Turkey. So, the parents should be informed about the benefits and risks of circumcision and the importance of psychological influences when circumcised at older ages.

Key Words: Circumcision, Children, Parental attitudes,

Introduction

Circumcision is the surgical removal of some or the entire foreskin of the penis. Circumcision is an ancient surgical procedure with a history of 15000 years. [1] One of every three men in the world is presumed to be circumcised. [2] Many studies in the literature showed that circumcision can protect from sexually transmitted diseases such as human immunodeficiency virus (HIV), syphilis, chlamydia, genital ulcer disease (GUD), herpes simplex virus (HSV), trichomonas vaginalis and human papilloma virus (HPV), as well as diseases such as penile cancer and cervical cancer. [3-11] Because there are reports stating that neonatal circumcision decreases the incidence of urinary tract infections, circumcision in the neonatal period has gained importance in recent years. [12] Although neonatal circumcision is not recommended as a routine practice by the American Academy of Pediatrics, its medical benefits are clearly highlighted. [13] However, some minor and major complications can be seen in the neonatal circumcision. [14-17]

Circumcision is a common practice among Jewish and Muslims in the world. Most of the people are Muslim in Turkey, so almost all of the Turkish men have been circumcised. In the present study, we aimed to survey parental attitudes and current circumcision practices in Turkey, as regards to when, by whom, where and why it is to be performed.

Methods

This study was carried out in two major training hospitals, in Izmir, which is the third largest city of Turkey, between January 2010 and August 2010. This study was done in accordance with the principles of the Declaration of Helsinki 2008. Inform consent was obtained from all parents. The parents who had at least one male child were included in the study. The parents who have an uncircumcised boy were excluded from the study. Questionnaires were filled out in face-to-face interviews with parents of 624 boys (1 month to 12 years old) while waiting for their child's well-child examination. Families were questioned about their most important reason for performing circumcision and asked to indicate just one single reason. Economic status of the family was classified based on monthly income. The subsistence wage according to national poverty criteria is currently 430 $ equivalent Turkish Liras. Family incomes below this sum were defined as a low-income family. Monthly income, which was between the subsistence wages and up to three-fold of the subsistence wage, was defined as middle income. The income above this level was defined as high income[18]

SPSS version 16.0 was used for statistical analysis. Descriptive statistics for the socio-demographic data and chi-square test for the statistical differences were used. A P value of <0.05 was considered statistically significant.

Results

The study was conducted with 624 families. Median age of circumcision was 5 years (1 month to 12 years old). General characteristics of the children and their families are seen in **Table 1**. Most of the families are from middle socio-economical class. When educational status of the parents was considered, 2.9% of the mothers and 1% of the fathers were illiterate. Some features of circumcision and influence of some socio-demographic characteristic on the age of circumcision are shown in **Table 2** and **3**. While only 7% of children were circumcised in the first moth of life, 40% of the children were circumcised after 6 years of age. Circumcision was generally performed by physicians (63.5%), in hospital conditions (52%), and primarily due to religious reasons (50.4%). Seventy-seven percent of the parents believed that circumcision could protect children from sexually transmitted diseases, while 72.7% of them believed the same for penile cancer. We observed a statistically significant association between age of circumcision and educational status of both parents (p<0.05). In general, the lower the education level of parents, the higher the age of children at circumcision.

Table 1. General characteristics of the children and the ir families.

	n (%)
Economic status of family	
High	34 (5.4)
Middle	544 (87.2)
Low	46 (7.4)
Mothers' education	
No education	18 (2.9)
Primary school	168 (26.9)
Secondary school	56 (9.0)
High school	180 (28.8)
University	202 (32.4)
Fathers' education	
No education	6 (1.0)
Primary school	138 (22.1)
Secondary school	88 (14.1)
High school	170 (27.2)
University	222 (35.6)

All of the children from high economic status were circumcised in hospitals; however, there was no statistically significant difference between groups (P>0.05), (**Table 4**). As the educational level of the mothers and fathers increased, the rate of circumcision performed in hospitals also increased (p<0.05). Although the most common cause of circumcision was reported as religious, however, for the families with high economic status, medical benefit was the primary reason. As the education level of both parents increased, the rate of circumcision performed by physicians also increased (p<0.05).

Data related with the rate and type of medical complications could not be obtained clearly, because relevant information was collected from families instead of medical records of the patients. Early intervention due to hemorrhage after circumcision was reported in 5 (2.1%) patients. One of these 5 patients was circumcised by a physician, while 4 of them by other medical staff or traditional practitioner. Regarding late intervention, 12 patients (5.1%) were intervened. Even though clear information could not be obtained about the

Table 2. Some characteristics of circumcision practice.

Characteristics	n (%)
Age of circumcision	
0-1 m	43 (7.0)
2-6 m	77 (12.3)
7 m-3 y	155 (24.8)
4-6 y	97 (15.6)
> 6 y	252 (40.3)
Person performing circumcision	
Physician	397 (63.5)
Other medical person	159 (25.6)
Traditional practitioners	68 (10.9)
Place of circumcision	
Hospital	324 (52.0)
Outpatient clinics	63 (10.0)
Other	237 (38.0)
Reason for circumcision	
Religious	314 (50.4)
Medical	257 (41.1)
Traditional	53 (8.5)

Table 3. Influence of some socio-demographic characteristic on the age of circumcision.

	Age of circumcision					P value
	0-1 m	2-6 m	7 m-3 y	4 -6 y	>6 y	
Economic condition						
High	9.1	0	36.4	45.5	9.0	>0.05
Middle	6.3	14.4	23.4	12.6	43.3	
Low	14.3	0	28.6	14.3	42.8	
Mothers' education						
Primary school / no education	5.7	2.9	14.3	8.6	68.5	
Secondary school	0	0	36.4	18.2	45.4	< 0.05
High school	5.3	23.7	21.0	18.4	31.6	
University	9.5	11.9	35.7	16.7	26.2	
Fathers' education						
Primary school / no education	9.7	6.2	12.9	9.7	61.3	
Secondary school	6.3	6.2	12.4	18.8	56.3	< 0.05
High school	0	34.5	24.1	13.8	27.6	
University	9.4	5.7	35.8	18.9	30.2	

Values are percent.

Table 4. Influence of some socio-demographic characteristic on where, by whom, and why circumcision was performed

	Place of circumcision			Reason for circumcision			Person performing circumcision		
	Hospital	Outpatient Clinics	Other	Religious	Medical	Traditional	Physician	Other medical person	Traditional practitioners
Economic condition									
High	100	0	0	36.4	54.5	9.1	100	0	0
Middle	47.7	10.8	41.5	53.2	38.7	8.1	60.7	27.7	11.6
Low	42.9	14.3	42.8	57.1	28.6	14.3	57.1	28.6	14.3
	p=0.07			p=0.62			p=0.14		
Mother's education									
Primary school / no education	30.6	7.4	62.0	52.6	39.1	8.3	47.9	25.4	26.7
Secondary school	36.4	9.1	54.5	72.7	27.3	0	45.5	45.5	9.0
High school	57.9	13.2	28.9	60.5	36.8	2.7	63.2	31.5	5.3
University	69.0	7.1	23.9	35.7	52.4	11.9	86.0	11.7	2.3
	p<0.05			p=0.22			**p<0.05**		
Father's education									
Primary school / no education	35.4	12.9	51.7	54.8	32.3	12.9	51.6	25.8	22.6
Secondary school	18.8	12.4	68.8	75.0	18.7	6.3	43.7	25.0	31.3
High school	48.3	13.8	37.9	41.4	55.2	3.4	58.7	37.9	3.4
University	73.6	5.7	20.7	45.3	45.3	9.4	79.6	18.5	1.9
	p<0.05			p=0.19			**p<0.05**		

Values are percent

underlying reasons, the most frequent cause leading to late interventions was identified as meatal stenosis. Local anesthesia was used in all of the circumcision practices performed outside the hospital.

Discussion

In the present study, we found that circumcision was generally performed by physicians (63.5%), in hospital conditions (52%), and primarily due to religious reasons (50.4%) in Izmir, Turkey. Circumcision is performed more common for religious reasons in Jewish and Muslim societies, for medical reasons as in African countries, and also getting more popular worldwide. One of every three men in the world is estimated to be circumcied. [2] About 62% of newborns in the United States have already been circumcid. [19] Particularly neonatal circumcision has recently become very popular in countries such as Africans and the USA, because of its benefits on the decrease both in the frequency of urinary tract infections throughout the first year of life and the transmission of HIV among heterosexual n. [20] In a comprehensive retrospective study conducted with 30000 children, Schoen elreported reported a urinary tract infection rate of 0.2% in the first year of life as in the circumcised group, but that of 2.2% in the non-circumcised group. American Academy of Pediatrics reported that urinary tract infections were ten folds reduced by neonatal circumcisn. [13] In our study, the rate of circumcision in the first six months of life was 19.4%. The most common period of circumcision was after 6 years of age with the rate of 40.3%. In our study, 67% of the families declared that they refused any surgical intervention at neonatal period. Religious reasons were identified as the most frequent cause of circumcision in 50% of cases. Low incidence of neonatal circumcision might be primarily due to religious reason for the circumcision.

Circumcision is a common and simple surgical procedure, occasionally leading to complications with different rates of 1% to %. [22] Intraoperative complications such as hemorrhage, pain, insufficient resection, and very serious complications such as penile amputation may be seen. Postoperative complications like pain, wound infection, skin bridges between penile shaft and glans penis, meatal ulcer, and meatal steno-

sis may also occur. [14-17] From this point of view, by whom, at which period of lifecycle, where and why circumcision should be performed is noted as important factors. The rate of complications after circumcisions by medical staff has been reported as 0-12%, while performed by non-medical staff it is up to 63%, even leading to more serious complicatis. [23] In our study, 63.5% of cases were circumcised by physicians, 25.6% by other medical staff, and 10.9% by traditional circumcisers. Among physicians, 75.6% of circumcisions were performed by pediatric surgeons, 22% by urologists and 2.4% by other physicians.

The place that the circumcision is performed is also important in terms of complications. In a retrospective study of 407 children being circumcised under non-sterile conditions other than hospitals, Atikeler eal. [24] reported a complication rate of 73%, and a hospitalization rate of 1.5%. Therefore, it is highly important to perform circumcision in hospitals, under sterile conditions, according to the general surgical principles. In our study, we observed that 52% of cases were circumcised in hospitals, 38% were done in other places. So, it seems that we should encourage families to have their children have circumcised in hospitals, even if performed by physicians or other experienced medical staff. Age of circumcision might be another factor affecting frequency of complications. Neonatal circumcision may lead to relatively less complications. Horowitz eal. [25] compared children being circumcised during the first month of life and 3-9 months of life and found no complications in the group circumcised in the first month of life, while 30% of significant bleeding was reported in the second group. Circumcision in the neonatal period usually does not need sutures and recovery occurs faster in this period, being important factors reducing complications. Economic status of the family does not significantly influence decisions about circumcision, but higher education level of the parents has generally got a tendency to the earlier ages for circumcision. However, there was a prejudice against neonatal circumcision in all family groups. In a previous study carried out by Sahiet al [26] in Turkey about 10 years ago, median age of circumcision was found to be 6 years. Only 15% of children were circumcised before 1 year of age. The main reasons for circumcision were religious and traditional. Our study indicated that nothing changed after 10 years and educational levels did not seem to affect the traditional approach to circumcision in Turkey. Moreover, none of the parents of uncircumcised boys reported that they would not have their children circumcised.

Our study has some limitations as the study population may not fully represent the whole Turkish population. Yet, our results indicate that even in the Izmir, the third largest city of Turkey, the traditional approach is common. Therefore, the parents should be fully informed about the benefits and risks of circumcision when performed at certain ages, the necessity of anesthesia or analgesia during the procedure and the importance of psychological influences of circumcision at lder ages.

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