

Investigating the effect of selecting delivery method on medical malpractice incidence in the specialized field of obstetrics and gynaecology in complaints referred to medical forensic expert commission during 2011-2012

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ABSTRACT

Background and aims: Complaints of obstetrics and gynecology specialist are on the top of complaint from doctors and these have been increasing with increased population and births. In this regard, parallel to industrialization of life, tendency to cesarean against vaginal delivery has been increased in patients. All the cases of complaint increased from 1995 until 2010. In multiple studies and evaluation of complications of cesarean and vaginal delivery conducted in legal authorities like forensics due to patient and her relatives complains can have an effective role on selecting delivery method in specialists by creating virtue of working. Limited information is available on this study. We aimed to investigate the effect of selecting delivery method on medical malpractice incidence in the specialized field of obstetrics and gynecology.

Methods: This is a descriptive-analytic study, and 913 cases of 2011 to 2012 who referred to Tehran forensics organization have been assessed and computer software SPSS was applied for data analysis. Our study was approved by the Ethical Committee of Forensic Medicine.

Results: Of the total referred cases, 12.8% were in the field of obstetrics and gynecology in which 691 cases were obstetric and 222 cases related to gynecological. In 44.5% of cases, medical malpractice was confirmed and 2.3 of them were due to caesarian surgery. The rate of maternal injuries was more prevalent than babies and children, and most of complains were related to inexperience surgeons.

Conclusion: As in our study, 2.3 of complaints were associated with cesarean patients and the rate of approved malpractice in cesarean was almost double the vaginal delivery. Furthermore, the rate of complains associated with mother in cesarean delivery has been twice the vaginal birth. The type of medical malpractice associated with type and method of delivery. In this study cesarean surgery delivery is pioneer.

Discussion: Considering the patient and fetus situation and patients' education selecting the type and method of delivery has an important role in prevention of patients' complaint to surgeons from forensic view and creation of more awareness among obstetrics and gynecology specialists about medical mistakes and special training that should be given to those joining with these specialties.

Keywords: Impairment, Death, Medical malpractice, Obstetrics, Gynecology.

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INTRODUCTION

Honesty and transparency are essential aspects of health care, including in physicians and hospitals responses to medical mistakes. Biases and habits associated with medical malpractice litigation, however, may work at cross-purposes with compassion in clinical care and with efforts to improve patient safety. The medical mal practice is arising and central topic for the forensic pathologist and forensic autopsies are a mandatory step in the judicial evaluation of the suspected medical malpractice. In the western countries, complain about malpractice related to obstetrics and gynecologist has first place, but in Iran it has second place between all of specialists which occurs for various reasons such as nature of the field and using surgery tools, hard and stressing work in short time with risk of injury to fetus and newborn and even mother, lack of equipment and space and insufficient personnel, improper communication with patient and relative and ignoring the mention of inevitable complications to patient from nature of condition and medical action. Specialists of the field generally deal with healthy women and families with high expectancy, and any negligence and indifference in their work could be accompanied with strict contacts and reactions from families, although, most people consider the pregnant patient or childbirth as a non-disease process. In this regard, they cannot tolerate any type of bad consequence. Therefore, it is observed that with increasing the population and also modernization social life increase the number of complains year by year.^{1,2} All the cases of complaining to medical staff referred to forensics organization of Tehran in 1995 was 134, 299 cases in 1999, and 833 cases in 2004, 1370 cases in 2005, and 1854 cases in 2006, and in 2009 and 2010 increased to 2207 and 2925 cases.³ However, medical malpractice is: violation of certain requirements' that medical profession

committee punishes the doctor, and three conditions are required to satisfy it: 1: Person should be the doctor patient, and doctor accepts the responsibility to its medical treatment and care; 2: Doctor must do actions which are not accepted from medical criteria or most commonly, he has not done accepted medical practices; 3: Patient has been injured as a result of actions that should not be done or not doing what should be done.⁴

During a study in Ethiopia during 2011-2013, 25 of the claims were against obstetrics and gynecology specialists.⁵ During a study conducted among 1996-1998 in Spain, only 1-3% of medical litigation was related to the field of obstetrics and gynecology.⁶ In a study in Mexico from 1996 to 1998, among 635 complaints against doctors in the field of obstetrics and gynecology, 60% of them were related to pregnancy field and 40% of them were related to gynecological diseases, and all the complains of the special field were 12.63%.⁷

In a study that was done by Knaak JP about malpractice over a 5-years period (2006-2010), 232 court decisions on medical malpractice taken by the regional courts. The disciplines most frequently confronted with claims of medical malpractice were gynecology and obstetrics (7.8%; n=18).⁸

However, in a study in Norway during 1994-2000, among 70 cases of complaints of obstetricians and gynecologists, 38 cases infant were death and 17 cases were neonatal brain damage that in most cases misinterpretation of available signs of fetus or delayed cesarean led to accidents. Also, in six cases, maternal death had been the complaint causation.

In a similar study in India during 1983-1993, 25% of obstetric emergencies without consultation of professor, and 4% of

maternal death have been due to delayed cesarean.⁹

In a study in Spain about medical malpractice payouts, 550 claims led to payout among 2236 claims from January 1, 2004 to December 31, 2010, in Spain, Spanish catastrophic payout are most associated with anesthesiology, general surgery and obstetrics and gynecology.¹⁰

Evaluation of complications of cesarean and vaginal delivery conducted in legal authorities like forensics due to patient and her relatives complains can have an effective role on selecting delivery method in specialists by creating virtue of working.

METHODS

All the cases have been assessed during 2011-2012 in specialized committee of forensics organization. This study is a descriptive-analytic study, all the complaints related to obstetricians and gynecologists referred to Tehran forensics organization

from whom 913 cases extracted and then using previously prepared data collection form variables data were collected. Propensity score for the probability of delivery was calculated based on known variables influencing it such as delivery method, type of complication, patients' age, and surgeons' experience. Our study was approved by the Ethical Committee of Forensic Medicine. The volume of study was 7710 cases. In this study method of delivery included cesarian and vaginal. All analyses used SPSS software. P-value was considered significant at level $P < 0.05$.

RESULTS

Totally, 7110 cases referred to forensics commission of Tehran (12.8%) were related to specialized field of obstetrics and gynecology. Total of 913 cases referred through two mentioned years, 75.68% were related to delivery, 24.32% related to non-pregnant disease (Table 1).

Table 1: Frequency of the cases based on the type of complication during 2011-2012

Disease type	Frequency percent	Number of patients	Total patients
Delivery	75.68%	691	
Non-delivery	24.32%	222	913(100%)

Table 2: Frequency of the cases on the type of delivery during 2011-2012

Disease type	Frequency percent	Number of patients	Total patients
Delivery	60%	415	
Non-delivery	40%	276	691(100%)

Among 691 cases related to delivery, 415 cases were related to cesarean and 276 cases related to type of delivery, 426 cases were compliant related to baby, and 256 cases were maternal related that 34.4% in cesarean were related to baby, 25.6 percent maternal related, and in vaginal delivery, 27.23% were related to baby,

12.73% were maternal related. Of the total cases (913), only in 308 cases medical malpractice approved and the rest of them were found not guilty. Among 308 recorded guilty, 28.15% of them associated with cesarean and only 16% were associated with vaginal delivery; at the mean time rate maternal and baby mortality in cesarean was

14.15%, 9.5% in vaginal delivery, and rate of maternal and baby impairment in

cesarean was 14.2% and 7% in vaginal birth (Tables 3 and 4).

Table 3: Comparative frequency of delivery method associated with complains related to mother or baby

Case type	Delivery method (cesarean)	Delivery method (vaginal)
Baby (426)	238 (55.88%)	188 (44.12%)
	34.44%	27.23%
Mother (256)	177 (66.78%)	88 (23.2%)
	25.6%	12.73%

Table 4: Comparative frequency of approved malpractice according to delivery method and complication type in mother and baby

Impairment of child	Impairment of mother	Child's death	Maternal death	Malpractice of delivery type
49 (7%)	50 (7.2%)	52 (7.5%)	46 (6.65%)	197 cases of malpractice approved in cesarean (28.5%)
17 (3%)	28 (4%)	41 (5.9%)	25 (3.6%)	111 cases of malpractice in vaginal birth (16%)
P<0.001				

Surgeons experience varied from 28 years to 57 years and the mean age was 34.46, median age of 34, view of 35 years. Maximum work experience of malpractice was 9 years. Mean maternal age was 24.8 and median age of 26 years with median and age view of 26 years, and age range of 17-46 years. Mean age of babies was 6.3 months with median of 5 months.

DISCUSSION

Honesty and transparency are essential aspects of health care, including in physicians and hospitals responses to medical mistakes. Emergency sections, obstetrics and gynecology, orthopedic and radiology are the most hospital departments' dealing with medical malpractice complains. Also, in this study specialized field of obstetrics and gynecology had the highest rate of complaints in comparison to other fields (12.8%), which

has been parallel to other studies like Mexico through 1996-2001. In majority of studies such as doctor Tofighi et al in Iran, and also the study conducted in India, Norway, Spain, and Mexico, Ethiopia orientation of study has not comparatively evaluated. Therefore, it is suggested that obstetrics and gynecology specialist be more and more careful and select a more safe and secure method proportional to clinical condition of the patients, because "Why the wise do thing then regret it", and the strategy doesn't materialize, unless obstetrics and gynecologists be more and more diligent and aware of improving their communication with patients and also continuous education and study with native culture of patients and identification of high - risk patients, and consultation with other highly experienced colleagues before any remedial action along with documentation and completion of medical record of its patients. Creation of more awareness among obstetrics and

gynecology specialists about medical mistakes is needed and special training should be given to those joining these specialties.

CONCLUSION

As in our study, 2.3 of complaints were associated with cesarean patients and the rate of approved malpractice in cesarean was almost double the vaginal delivery. However, the rate of observed complications (in both mother, and baby and fetus) in delivery method has been almost twice the vaginal birth.

Furthermore, the rate of complains associated with mother in cesarean delivery has been twice the vaginal birth (25.6% versus 12.73%, $P < 0.001$). The type of medical malpractice associated with type and method of delivery. It is observed that incidence of complaints, rate of mortality, and also maternal and child impairments, in all aspects cesarean surgery delivery was and is pioneer.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest.

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