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Original Research Article

Knowledge, attitude and practice of obstetricians towards external cephalic version

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ABSTRACT

Background: Breech presentation is found in 3-5% of pregnant women at term. The cause for this fetal presentation may vary from fetal to maternal. Management option for breech presentation includes assisted vaginal breech birth, caesarean section and external cephalic version. External cephalic version is a maneuver performed to avoid breech presentation at term labor and helping the obstetricians to avoid complications of cesarean section. The success rate of ECV is 50%. Considering a high success rate and low risks it can be concluded that ECV can help reduce cesarean section rate of any region. The objective of this study is to determine the knowledge, attitude and practice of healthcare practitioners towards external cephalic version.

Methods: This is an observational cross-sectional study conducted by the postgraduate trainee of Kulsumbai Valika social security SITE hospital, Karachi, Pakistan. By purposive sampling selection, there were 50 consultant obstetricians that have been well informed and were willing to complete KAP study questionnaires were enrolled to participate.

Results: A total of 50 participants were included, 70% had clinical experience of more than 10 years. 80% considered ECV a safe procedure. 75% believe that effective knowledge and practice of ECV can bring down cesarean section rate. If encountered by client with breech presentation 69% will manage with elective LSCS (lower segment caesarean section), 26% with ECV and only 5% will manage with assisted breech vaginal birth.

Conclusions: For uncomplicated singleton breech at term, both ACOG and RCOG recommend external cephalic version. In Pakistan the current trend involves performing cesarean section for breech presentation. Effective knowledge, Proper training, and adequate practice can improve ECV uptake in our country.

Keywords: Breech presentation, External cephalic version, Assisted breech vaginal delivery, Elective LSCS

INTRODUCTION

Breech presentation is found in 3-5% of pregnant women at term.¹ This presentation is more common in preterm pregnancies with incidence up to 22-25% at 28 weeks. The cause for this fetal presentation may vary from maternal which include uterine anomalies like bicornuate uterus, uterine leiomyomas to placenta previa and fetal causes like congenital fetal CNS anomalies, neck masses and polyhydramnios.² Management option for breech presentation includes assisted vaginal breech birth,

caesarean section and external cephalic version. Assisted breech vaginal birth is associated with increased perinatal morbidity and mortality.³ Assisted vaginal breech birth was a common practice over the past 2 decades. In 2000, the Term Breech Trial, an international multicenter randomized clinical trial comparing planned vaginal deliveries with planned cesarean deliveries concluded that perinatal and neonatal mortality rates, serious neonatal morbidity rates were significantly higher in the planned vaginal delivery group than in the planned cesarean delivery group (16% vs. 5%).⁴ External cephalic version is a maneuver performed to avoid breech presentation at term

labor and helping the obstetricians to avoid complications of cesarean section like endometritis, hemorrhage, infection, blood transfusion, venous thromboembolism and future risks for placenta previa and accrete.⁵ With all the benefits of avoiding cesarean section ECV promises the success rate from 35%-86%.^{5,6} Vaginal delivery rate after ECV have shown to be 85.7% in the fetuses who remained cephalic after ECV.⁷

The risk associated ECV include placental abruption, emergency cesarean delivery, cord prolapse, transient abnormal fetal heart rate changes, vaginal bleeding, rupture of membranes, and fetomaternal transfusion.⁸ But the serious risks are very rare 0.45% and minor complications occur in up to 4%.⁹

Considering a high success rate and low risks it can be concluded that ECV can help reduce cesarean section rate of any region. A dedicated team and expertise are the main factors in success of ECV as shown in a study conducted in Netherlands.¹⁰ The objective of this study is to determine the knowledge, attitude and practice of healthcare practitioners towards external cephalic version. This study will not only help determine the attitudes and fears of health care providers towards this simple maneuver but also will assist in finding the causes of failure of this technique in our region of the world.

METHODS

This is an observational cross-sectional study conducted by the postgraduate trainee of Kulsumbai Valika social security SITE Hospital, Karachi, Pakistan from January 2021 to March 2021. By purposive sampling selection, there were 50 consultant obstetricians that have been well informed and were willing to complete KAP study questionnaires were enrolled to participate. It includes obstetricians from different hospitals in Karachi city, from both public and private sector hospitals.

Inclusion criteria

Consultant obstetricians who were specialized in obstetrics and willing to participate were included.

Exclusion criteria

Midwives, general practitioners were not included in the study.

The study instruments

A two-part researcher made instrument was used, first part included questions about qualification, duration of clinical practice, any experience of working outside parent country. Second part contained questions about clinicians' perception about safety of ECV, their own and their clients attitude towards ECV, clinicians practice of ECV and the success rate they achieved for the procedure, and whether

they have ever received any training on the procedure of ECV or not.

Statistical analysis

Statistical analysis was performed using SPSS version 21 (IBM Co., Armonk, NY, USA). Descriptive statistics such as percentages, frequencies mean±standard deviation were calculated. P values less than 0.05 were considered as statistically significant.

RESULTS

A total of 50 participants were included. Demographics of participants are summarized in Table 1.

Table 1: Demographics of participants.

Demographics study		
Qualification	FCPS	72% (36n)
	MCPS	28% (14n)
Years of clinical experience	>10 years	70%
	<10 years	30%
Experience of working outside Pakistan	yes	30%
	no	70%

Regarding attitudes of clinicians towards safety of external cephalic version (ECV) almost 80% participants considered it to be safe and at least once performed it but it failed in almost 50%. Around 20% were not sure about the safety of procedure.

77% clinicians who participated in the study have a practice to counsel their client for ECV, but they found that more than half of their clients 57.1% refused to undergo the procedure.

75% of participants believe that effective knowledge, frequent practice and proper counseling about ECV can bring the rate of CS down in Pakistan.

If encountered by any client with breech presentation, 69% of the study participants opted to manage the situation with elective LSCS (lower segment caesarean section), 26% with ECV and only 5% opted for assisted breech vaginal birth.

Regarding the reasons for opting the above statements, among those who opted for elective LSCS 50% of them opted so because their patients didn't want to take the small risk associated with ECV. 25% of them opted for LSCS because they consider it more safer than ECV, 15% said that their ECV usually fails as they are not very expert in it and rest 10% opted for LSCS because they think ECV may increase litigation.

For those who opted for breech vaginal birth on further questioning they all explained that for multiparous women

with adequate pelvis they feel themselves expert of conducting assisted breech vaginal birth.

For those who opted for ECV they all consider it safer than Elective LSCS and find themselves expert in managing any complication which arises.

On questioning regarding knowledge of our general obstetric population regarding ECV 92% clinicians answered that their clients don't have any idea about ECV but most of them 88% think that effective counseling of clients by clinicians can bring positive attitudes towards ECV.

Upon questioning about receiving proper training on ECV as an undergraduate or through any medical education program, 37% responded positively and 63% had not received any proper training on the procedure.

Of those who had experience of working outside the Pakistan in developed part of world, all of them had received training on ECV, found the success rate of procedure in more than 50% of cases. And 8% of those participants who don't have any experience of working abroad have received training on ECV and perform it frequently.

DISCUSSION

Over the years, the World Health Organization (WHO) reports cesarean section rates have been on the rise in both the developed and developing nations.¹³ According to the WHO, the ideal rate for CS should be below 10 to 15 percent. When the rate of CS exceeds 10 percent, there is no significant evidence to suggest improvement in maternal mortality.^{11,13} In Pakistan the rate of cesarean section is 34-39%, especially in urban areas, according to recent Pakistan Demographic and Health Survey (PDHS) (2012-13) report.¹⁴ CS is associated with many short terms and long term complications.

Breech presentation remains the 3rd most common cause of cesarean section after previous section and labor dystocia.¹¹ in united states 12% and in Pakistan 9-10% of cesarean section are being performed due to breech presentation.^{12,15} External cephalic version is the maneuver through which breech presentation can be converted into cephalic presentation thus allowing spontaneous vaginal delivery and preventing cs. This stud has tried to evaluate knowledge, attitude and practice of obstetricians towards ECV, a simple and easy procedure with a benefit of preventing cesarean section hence helping in reducing its rate.

The study population consisted of specialized obstetricians who have experience of practice within and outside Pakistan. The results showed that all the doctors had an idea about ECV. But most of those doctors who have worked outside Pakistan have taken formal training on the procedure and are confident in performing it as compared

to those who don't have any exposure of working in developed part of world.

Most of this study population considers this procedure as safe and have tried it once in their practice, but the success rate has found to be 50%. Many studies have shown it to be a safe procedure, especially study conducted at Spain specifically to evaluate safety and efficacy of the procedure also showed it to be a safe procedure, with a very high success rate. The same study showed that though the success rate of the procedure is 50% internationally, it is significantly higher in developed parts of world like Spain.¹⁶

77% of the obstetricians who participated in this study do counsel their patients about ECV, but it is declined by almost half of their clients. The same thing is noticed in a study conducted in Australia which showed that 67% were eligible but didn't undergo ECV, and the reason for this according to them was issue with service provision or acceptability by women.¹⁷

75% of this study population believes that effective counseling and practice of ECV can bring the cesarean section rate in our country. Lack of knowledge to educate and counsel women regarding ECV was also considered as main barrier to this procedure in a study conducted at Korea.¹⁸

When encountered by a patient with breech presentation, 69% opted to manage the situation by elective LSCS. The main reason for this was refusal of patients for ECV and the second reason was lack of expertise. The same reasons were found in studies conducted in Australia and Korea.^{17,18} 26% opted to manage the situation by ECV the reasons for choosing this option were that apart from considering it safe they consider themselves expert in performing the procedure and managing the complication if it arises. A study done in Ireland which concluded the 10-year review on ECV also showed that it's a safe procedure and when performed by the operator who has performed 20 procedures the success rate of procedure is high. The safety and success rate of ECV is proved by many studies internationally with a success rate ranging from 50-70% in different studies.^{19,20}

Effective counseling, proper expertise and support by health care practitioner can help increase the rate of practice as well as success rate of ECV.

Strengths and limitations of study

This is one of the very few studies conducted on this topic in recent years in our region of the world. The strength of this study is its cross-section design, and it has explored KAP about the topic by specialized obstetricians.

The limitation of this study is that it is conducted in just one city, more such studies on national level are required to revive the practice of ECV.

CONCLUSION

For uncomplicated singleton breech at term, both ACOG and RCOG recommend external cephalic version. It is simple and safe to perform and converts breech to cephalic presentation hence increasing the chances of spontaneous vaginal delivery. In Pakistan the current trend involves performing cesarean section for breech presentation. To change this situation, it is important to deal with the barriers like lack of proper training and frequent practice and lack of effective knowledge provision and counseling of pregnant women. This study is a step in this direction which may help in reducing the alarming increase in rate of cesarean section In Pakistan.

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