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2016 Survey on Counseling and Managing Patient for Trial of Labor after Cesarean Section

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Abstract

The Survey on Counseling and Managing Patient for Trial of Labor after Cesarean Section (TOLAC) on 2016, the survey conducted in multicenter. The questionnaire included segments on demographics data about physicians, also, elements in counselling sessions such as the success rate in case patients have previous vaginal delivery or not, the likelihood of rupture uterus, blood transfusion, endometritis maternal and fetal morbidity and mortality. Furthermore, physician preferred management in those patients if they came in spontaneous labor or need induction of labor and most frequent patient's final decision with each physician. In total, 300 physicians working in Obstetricians and Gynecologists practice were surveyed. Data analyzed using Statistical Package for Social Sciences (SPSS) version 2; by using 95% confidence level states and a 5% margin of error.

We found that (84.91%) are including in their counseling session about successful rate of TOLAC in whom had one previous cesarean section and no previous vaginal birth (about 3 out of 4) and whom had one previous cesarean section and with at least one previous vaginal birth (almost 9 out of 10). Moreover, we discover that if patient came with spontaneous labor before an elective repeated cesarean delivery date, (81.37%) of physicians tend to prefer allowing TOLAC instead of performing cesarean section.

Background

Patients after having primary cesarean section in their previous pregnancies have only two route of delivery which is either vaginal birth after cesarean (VBAC) or elective repeated Cesarean delivery (ERCD) [1]. However, the final decision to choose the mode of delivery usually is made after the counseling session in the early antenatal visits with each patient and her treating physician. Unfortunately, the rate of TOLAC lately is declining [2]. The rate of cesarean section in Kingdom of Saudi Arabia (KSA) is increasing in the last decades although

World Health Organization (WHO) recommends that the rate of cesarean section should not exceed 15% [3,4]. Moreover, Ministry of Health (MOH), KSA annual mortality revealed that 8% of overall maternal deaths was due to cesarean section, as a result encouraging TOLAC consider to be a safe route of delivery [5,6]. Beside that we hypothesized that counseling physicians in order to misguide their patients in choosing the appropriate rout of delivery may hide some important facts that might play an important role in making the final decision of mode of delivery which include elements in counseling sessions such as the success rate in case patients have previous vaginal delivery or not, the likelihood of rupture uterus, blood transfusion, endometritis maternal and fetal morbidity and mortality.

Objective

Our aim was to assess how the counseling sessions are running by most of the treating physicians in KSA and to predict the patients' final decision based on the questionnaire we create.

Methods

Design

The survey questionnaire was developed after reviewing the last guideline in Royal College of Obstetricians and Gynecologists Green Top Guideline and American College of Obstetricians and Gynecologists (ACOG) [7,8]. The questionnaire included segments on demographics, included elements in counseling sessions, physician preference and most frequent patient's final decision with each physician.

Study setting

The survey conducted in multicenter to assess the counselling elements that are included in counselling sessions for TOLAC on the practice of obstetrics and gynecology. Centers included in the survey were Primary health care center, Secondary Governmental based hospital, and Tertiary Governmental based

hospital, Private hospital equipped with Labor room and Operation room and Private clinic setting.

Sample

The entire population General Practitioners, Consultants, Specialists and Residents of Obstetrician & Gynecologist in practice in multicenter, Riyadh, KSA enrolled.

Data analysis

This survey addresses the impact of counselling and managing patient for TOLAC on the practice of obstetrics and gynecology. The survey interval is September 1, 2015 through December 31, 2015. In total, 300 physicians working in Obstetricians and Gynaecologists practice were surveyed. The final data represents only those Obstetricians and Gynaecologists who responded to the survey (around 280). Completed surveys were coded and analyzed using Statistical Package for Social Sciences (SPSS) version 2. Data analysis yielded total number and percentages for each of the survey questions. Based on our sample we used 95% confidence level states and we conduct in our results a 5% margin of error.

were secondary governmental based hospitals and (0.79%) were private clinic setting.

Patient care providers during counselling

Patient Care Providers were asked a series of questions about counselling elements included in each counselling sessions for TOLAC. A total of 212 physicians completed the survey. Of the 212, in (Table 1), we found that (84.91%) are including in their counselling session that successful TOLAC with one previous cesarean section and no previous vaginal birth is around 3 out of 4 and successful TOLAC with one previous cesarean section and with at least one previous vaginal birth is almost 9 out of 10.

Table1 Counselling elements included in each counselling sessions for TOLAC.

Counselling elements	Categories	Percentage	Total
Successful TOLAC with one previous Cesarean Section and no previous vaginal birth is around 3 out of 4 or 72-75%	Yes	84.91%	212
	No	15.09%	
Successful TOLAC with one previous Cesarean Section and with at least one previous vaginal birth is almost 9 out of 10 or up to 85-90%	Yes	84.91%	212
	No	15.09%	
The likelihood of UTERINE RUPTURE in TOLAC compared to ERCD	Yes	74.52%	208
	No	25.48%	
The likelihood of BLOOD TRANSFUSION in TOLAC compared to ERCD	Yes	55.34%	206
	No	44.66%	
The likelihood of ENDOMETRITIS in TOLAC compared to ERCD	Yes	32.37%	207
	No	67.63%	
The likelihood of MATERNAL MORTALITY in TOLAC compared to ERCD	Yes	40.49%	205
	No	59.51%	
The likelihood of FETAL/NEWBORN TRANSIENT RESPIRATORY MORBIDITY in TOLAC compared to ERCD	Yes	43.14%	204
	No	56.86%	
The likelihood of FETAL/NEWBORN HYPOXIC ISCHAEMIC ENCEPHALOPATHY (HIE) in TOLAC compared to ERCD	Yes	38.05%	205
	No	61.95%	

Also we found that (67.63%) and (61.95%) are lacking in their counselling sessions that the likelihood of endometritis in TOLAC compared to ERCD and the likelihood of fetal/newborn Hypoxic Ischemic Encephalopathy (HIE) in TOLAC compared to ERCD (Figure 2).

Among the likelihood of failure of TOLAC, (Table 2) showed that (88.73%) are informing their patients that having a previous Cesarean section for labor dystocia or failure to progress will be higher whereas (65.71%) are informing their patients that having body mass index (BMI) greater than 30 will decline the success rate of TOLAC.

Degree of treating physicians

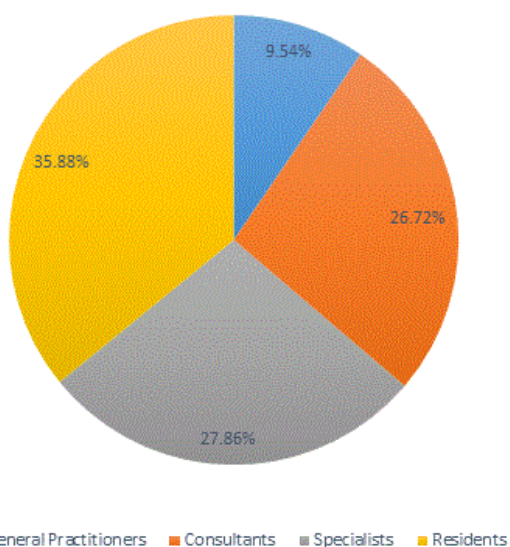
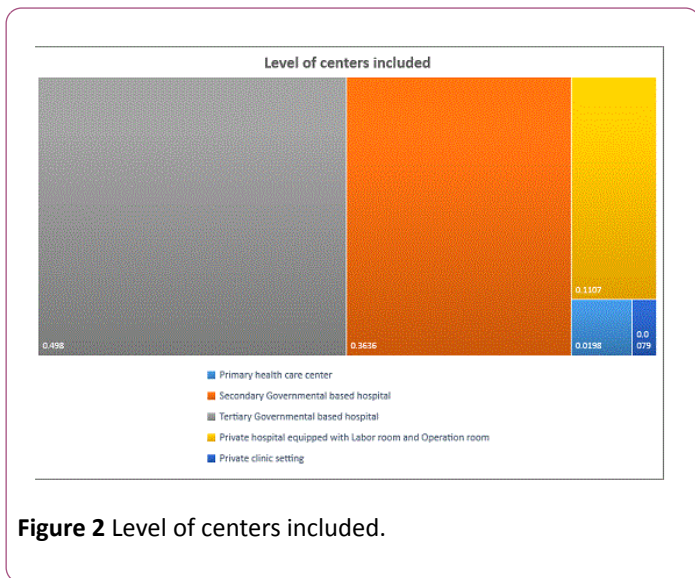


Figure 1 Degree of treating physicians.

Results

Physicians' demographics

Treating physician surveyed were general practitioners, consultants, specialists and residents of Obstetrician & Gynecologist. As shown in Figure 1, (35.88%) were residents whereas (9.54%) were general practitioners. Level of centers included in survey demonstrated in Figure 2 revealed that (49.80%) were tertiary governmental based hospitals, (36.36%)



Counselling Elements	Categories	Percentage	Total
Pelvic and Abdominal Adhesions	Yes	93.49%	215
	No	6.51%	
Incidence of Bowel injury	Yes	88.73%	213
	No	11.27%	
Incidence of Urinary Bladder injury	Yes	91.55%	213
	No	8.45%	
Placenta Previa	Yes	88.73%	213
	No	11.27%	
Morbidly adherent placenta	Yes	85.45%	213
	No	14.55%	
Possible Cesarean Hystrectomy	Yes	78.30%	212
	No	21.70%	
Wound infection	Yes	87.32%	213
	No	12.68%	
Anesthesia related complications	Yes	85.85%	212
	No	14.15%	
Thrombotic events	Yes	83.96%	212
	No	16.04%	

Table 2 The likelihood of failure of TOLAC will be higher with the following patient characteristics.

Counselling elements	Categories	Percentage	Total
Induction of labor	Yes	68.90%	209
	No	31.10%	
No previous vaginal delivery	Yes	84.13%	208
	No	15.87%	
Body Mass Index (BMI) greater than 30	Yes	65.71%	210
	No	34.29%	
A previous Cesarean section for labor dystocia or failure to progress	Yes	88.73%	213
	No	11.27%	

While counselling the patients for ERCD (**Table 3**) showed that (93.49%, 91.55%, 88.73% and 88.73%) are possible serious complications include pelvic and abdominal adhesions, incidence of urinary bladder injury, incidence of bowel injury and placenta previa respectively.

Patient care providers during management

The survey questionnaire asked about the preferred management of each physician whether or not physicians would allow a TOLAC for a patient who came in different scenarios (**Figure 3**). Explain what physician's preferred management; if patient came with spontaneous labor before an elective repeated Cesarean delivery date (81.37%) would allow TOLAC. On the other hand, if patient came in labor with breech presentation coming in spontaneous labor only (14.83%) would allow TOLAC.

Table 3 While counselling the patients for ERCD: the possible serious complications included.

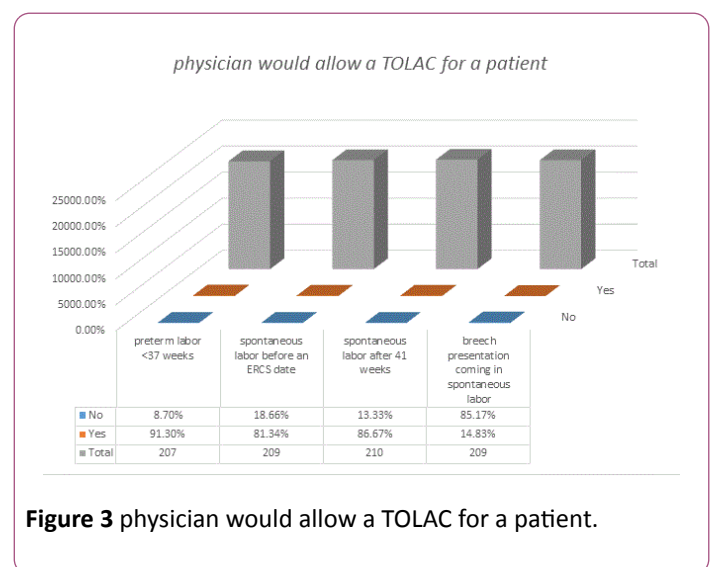


Figure 3 physician would allow a TOLAC for a patient.

The questionnaire also included segments on physicians preferred method for induction of labor (IOL) for patients with previous cesarean section and currently pregnant which illustrated on **Table 4**. We found that (57.58%) prefer sweeping as the main method of IOL, (52.74%) may use both mechanical

and pharmacological methods for IOL depending on the case and only (20.92%) will do cesarean section instead of IOL.

Table 4 In regards to induction of labor (IOL) for patient with history of Cesarean section.

Physician Prefer	Categories	Percentage	Total
mechanical induction of labor as the main method of IOL	Yes	45.45%	198
	No	54.55%	
sweeping as the main method of IOL	Yes	57.58%	198
	No	42.42%	
pharmacological induction of labor as the main method of IOL	Yes	36.22%	196
	No	63.78%	
both mechanical or pharmacological methods of IOL depending on the case	Yes	52.74%	201
	No	47.26%	
Cesarean section instead of IOL	Yes	20.92%	196
	No	79.08%	

Patient final decision after counseling

Patient's feedback after being counseled by each physician personally for TOLAC interpreted in (Table 5) taking in

Table 5 Patient's final decision after being counselled with each physician personally.

Patient's Decision	Never	Rarely	Sometimes	Often	Very often	Total
patient tend to decide for ERCD if the counselling occurred in OPD	0.90%	29.73%	54.95%	10.81%	3.60%	111
patient tend to decide for TOLAC if the counselling occurred in OPD	0.90%	0.90%	33.33%	47.75%	17.12%	111
patient tend to decide for ERCD if the counselling occurred out of OPD (ER, LW)	4.50%	14.41%	55.86%	18.02%	7.21%	111
patient tend to decide for TOLAC if the counselling occurred out of OPD (ER, LW)	3.60%	19.82%	54.05%	18.92%	3.60%	111
patient's decision goes with what physician personally believe whether TOLAC or ERCD	3.60%	14.41%	44.14%	31.53%	6.31%	111
patient's decision makes physician feels satisfied of his/her counselling abilities	1.80%	9.01%	27.03%	45.95%	16.22%	111

ERCD: Elective repeated cesarean delivery; ER: Emergency room; TOLAC: Trial of labor after cesarean section; LW: Labor ward; OPD: Outpatient department.

Moreover, we found that half of treating physician preferred sweeping for IOL and may use both mechanical and pharmacological methods for IOL depending on the case sporadically. Patient often tend to decide for TOLAC if their

consideration are of counseling for instance outpatient department (OPD), emergency room (ER) and labor ward (LW) as well (Table 5) clarify that (47.75%) of patient often tend to decide for TOLAC if their counseling session occurred in OPD. Moreover, (44.14%) of patient's decision sometimes goes with what physician personally believe whether TOLAC or ERCD. As a result, we noted that patient's decision often makes physician feel satisfied of his/her counseling abilities in (45.95%) of cases.

Discussion

We found that (84.91%) are including in their counseling session that successful TOLAC with one previous cesarean section that is highly encourage patients to go more with TOLAC rather than ERCS. Among the likelihood of failure of TOLAC, (88.73%) are informing their patients that having a previous cesarean section for labor dystocia or failure to progress in cervical dilatation will be higher which may consider against encouraging patients for TOLAC but unfortunately it is a fact they need to know. While counseling the patients for ERCD the majority are included the possible serious complications include pelvic and abdominal adhesions which lead to distort the anatomical orientation of abdominal and pelvic organs, incidence of urinary bladder and ureters injury, incidence of bowel injury, massive bleeding and placenta previa that can be avoided in most of cases by going for TOLAC. We found that most of the physician if their patient came in spontaneous labor before an ERCD date would allow TOLAC.

counseling session occurred in OPD. We noted that patient's decision often makes physician feel satisfied of his/her counseling abilities.

Unfortunately, we know that survey is not the kind of strong evidence we can rely on it but it finds out the physician's thoughts and believes about counseling and managing patient for TOLAC. However, aiming to get a stronger evidence we can trust we already started a retrospective and prospective cohort studies in order to assess the psychological behavior of the counselor in counseling patient for TOLAC based on this survey and studying all the possible factors that may influence the patient's final decision in the mode of delivery in order to be identified and to improve our medical practice and patients satisfaction in KSA.

Conclusion

Interestingly, we found that most of the counseling physicians are residents and the majority is including the success rate in achieving TOLAC. That's can clearly explain that the final decision made by most of the patient was taken after getting their chance in outweigh the benefits and the risks of each route without being affected by the canceller believes or preference.

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