The Study Of Indications And Factors Affecting The Performance Of Caesarean Section

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Abstract

The study has been conducted in 3 maternity hospitals in Baghdad to know the factors and the variables which are engaged with Caesarean section. A questionnaire has been constructed and showed to experts to ensure the validity. This questionnaire includes many variables which could be related to Caesarean section. The study sample includes 124 mothers who have been interviewed directly. The most common indications of Caesarean section include: maternal disease, previous Caesarean section, fetal distress, prolonged labour, breech presentation and maternal request. And less common indications include: mother age, fetal deformity and hemorrhage during pregnancy. The results show that %24.2 of mothers have previous Caesarean section and %30.6 have a maternity disease (hypertension, diabetes cardiac disease), %47.1 of them have anemia during pregnancy and %21 of mothers suffer from toxemia. The researcher recommends that the primary health care center should have a more important role to diagnose pregnant women and refer the risky mother to a special hospital.

Introduction

The goal of MCH care is to give the medical care for mother during pregnancy, labour, puerperium to reduce the risk of complications. In spite of that care during pregnancy, there is still a rate of women who fail to give birth naturally and resort to the Caesarians [1]. The indications for caesarean section are usually relative rather than absolute, and include all those conditions in which the risk of vaginal delivery is thought to be greater for mother or fetus than the risk of operation [2].

Caesarean section surgical techniques have become more sophisticated through 100 years of development, Caesarean section at an early stage greatly reduces maternal and neonatal mortality rate, and has gradually become an important method for high-risk delivery in modern obstetrics[3].

tatistics taken from records of some maternity hospitals in Baghdad city indicate an increasing rate. The rate of the Caesarean sections in 1975 was %6.7 and in1980 was raised to %9.3 to the total frequency of births in the hospitals [4].

WHO estimate the rate of Caesarean section at between %10-15 of all births in developed countries in 2004. In England, there is one Caesarean section for every nine natural births. In the United States, there is one Caesarean section for every five natural births. Among developing countries, Brazil, has one of the highest rates of Caesarean section in the world, the rate reaches %35[5]. The Caesarean section has begin to be safer at the present time by the development of anesthesia, blood-transfusion, the use of antibiotics and the technical development of surgery and the advanced devices in the field of obstetrics and gynecology. All the above have led to the expansion of the Caesarean section [5], [6].The reasons behind performing the Caesarean section are many; some are due to mother and others to fetus or both [3]. The caesarean section rates are greatly increasing not only in Iraq, but on the worldwide. Hence, the study is important.

The Objective of Study

To identify the variables such as mother's age, whether she is primipara or multipara, frequency of previous pregnancies, and previous Caesarean sections.

To identify the diseases and health problems of mothers.

To identify the reasons for the Caesarean section.

Terminology

Caesarean section: delivery of fetus and placenta by an incision through the abdominal wall and the wall of uterus for avoiding the complications. [7]

Material and Method

In order to achieve the objectives of cross sectional study, we should know the reasons of performing the Caesarean sections and the relationship of some relevant variables. Therefore, a questionnaire form is designed in the light of some of the reference of previous literature and other references in relation to the Caesarean sections and their causes. The questionnaire form is shown to 10 experts in that domain and it is amended according to their suggestions.

Samples are collected from three hospitals in Baghdad which are (Baghdad Medical City, Al-Alwiya Maternity Hospital and Al-Karama Hospital) and mothers who have undergone Caesarean sections are interviewed. The total sample is 124 women.

Results & Discussions

The table (1) indicates the distribution of the appropriate age for the first pregnancy. it states that %19.3 of women in first pregnancy are at ages of 19 and less , whereas%16.3 of those are above 36 years old. This result disagrees with Al-Samarei [8] who stated that the appropriate age for the first pregnancy is between 25-35 years.

Findings in table (2) indicate that the majority of the study sample %75.2, have been pregnant for 1-4 times, whereas the other rate is distributed to 8.8% of frequency of 5-6 times, 5.6% of frequency of 7-8 times , 4.8% of 9-10 times and 5.6% of 11 and more respectively.

Findings in table (3) indicate that 77.5% of mother are multipara in comparison with 22.5% of mothers how are primipara.

Findings in table (4) show that 38 cases of women are suffering from diseases which form 30.6% out of the total sample of study. Hypertension represents the higher percentage of cases, 55.3% of the sample and 23.7% are for the diabetes, whereas the percentage 10.5% of the sample are for each heart diseases and other. Al-Amir [1] indicates that hypertension leads to increasing the possibility of fetal death inside the uterus as well as a high risk of uterus bleeding before delivery. The fetus of a diabetic mother is always bigger than the normal. That in turn leads to difficulty of normal delivery [11].

In cardiac diseases, pregnancy adds a great burden to the heart function, and thus, considered as sufficient indication for Caesarean section to save mother and fetus [3].

Findings in table (5) indicate that anemia represents the higher rate which is 47.1% out of the total sample of study. Al-Amir [1] indicates that anemia is a frequent disease that occurs during pregnancy, especially in recurring pregnancy and mother who do not follow the health instructions about nutrition during pregnancy. That leads to general weakness which could affect delivery.

Toxemia of pregnancy was %21, as [12] indicates that this complication is related with a high degree of mother and neonatal death. It leads to fetal loss of weigh and suffocation. The reason for mothers' death is often due to complications such as bleeding as a result of placenta abrputio. Thus, it becomes necessary to conduct a Caesarean section. The other Findings in table include (%17.4) urinary tract infection and 14.5% vomiting which might be dangerous on pregnant health [10].

Findings in table (6) show that 30 mothers represent 24.2% of the total sample, have undergone a previous Caesarean section, this sample is distributed into one previous Caesarean section that represented 43.3%, the percentage of 23.3% two Caesarean sections, 20% have three Caesarean section and 13.4% have four Caesarean sections as it is agreed on [9,10,11] that the existence of previous caesarean section is regarded as the best reason to make an operation.

Table (7) shows that most common indications of Cesarean section are disease and pregnancy complications which represent 31.6% and previous Cesarean section 24.2% that is in agreement with [2, 5] which indicate that disease and pregnancy complications such as hypertension, diabetes, cardiac disease and toxemia of pregnancy are reasons for performing Cesarean section, and repeated Cesarean section has contributed significantly to the total increase in cesarean deliveries.

Another result of this table shows that the failure induction and prolonged labour accounted for 12.9% [6,13] which indicated that labour last more than 36 hours in consider as prolonged. After this period of time, the risk to both mother and fetus increase steeply, and prolonged labour has used increasingly as reasons for performance a Cesarean section.

The other results include fetal distress 8.9%, malpresentation and malposition causes %6.5 and %4.9 for maternal request [3], [6] mention that electronic fetal monitoring likely increases the chances of detecting fetal distress and probably results in an increased number of cesarean sections and over the past ten years the most rapidly increasing indications for fetal distress. [3,13] indicate that reasons of maternal choice of Cesarean section include previous unpleasant vaginal delivery experience, a previous severe vaginal tear or personal desire.

The above six indications are considered as most common for performing a Cesarean section in this study, and accounted for 88.9% of all sample. This result is in agreement with [2, 12, 13], stating that the maternal disease, fetal distress, failure to progress in labour, previous Cesarean section, breech presentation and maternal request, these indications are responsible for %85 of all Cesarean deliveries in the USA.

Other indications in this table include bleeding during pregnancy %4, mother age (very young, old) formed %3.1 and twin 2.4% and congenital abnormality of fetus form 1.6%. studies [5, 9,13] have shown that the frequency of Cesarean section increases with advancing age for the American and the Canadian women, and twin or multi of three less likely to be delivered vaginally. If the fetus was diagnosed with a birth defect, a Cesarean section would be done to reduce any further complications during delivery.

Conclusions

Most mothers of the sample are multipara.

Most common pregnancy complications include toxemia, anemia and vomiting.

Most common indications of Caesarean section include maternal disease, pervious Caesarean section, fetal distress, prolonged labour, breech presentation and maternal request.

Maternal disease include hypertension, diabetes and heart diseases.

Recommendations

Mothers must be aware of the importance of regular visiting to the health institutions when they feel pregnant.

The role of MCH centers are important in determining the state of mother and in referring mothers with risk to a specialized physician.

Mothers should be Encouraged to choose births in hospitals to safe them at critical times for the facilities found in hospitals.

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Table (1) shows the distribution of mothers according to Age

Age in years	Frequency	Percentage
Less than 19	24	%19.3
20-25	25	%20.1
26-30	32	%25.8
31-35	23	%18.5
36-40	11	%8.8
41 and above	9	%7.5
Total	124	%100

Table (2) shows the distribution of women according to times of pregnancy

Times of pregnancy	Frequency	Percentage
1- 2	53	%42.8
3-4	40	%32.4
5-6	11	%8.8
7-8	7	%5.6
9-10	6	%4.8
11 and above	7	%5.6
Total	124	%100

Table (3) shows the distribution of mothers to primipara and multipara

Items	Frequency	Percentage
Primipara	28	%22.5
Multipara	96	%77.5
Total	124	%100

Table (4) shows the distribution of mothers according To maternal disease

Disease	Frequency	Percentage
Hypertension	21	%55.3
Diabetes	9	%23.7
Heart diseases	4	%10.5
Other	4	%10.5
Total	38	%100

Table (5) shows the distribution of mothers according To pregnancy complications

Pregnancy complications	**Frequency**	**Percentage**
Anemia	65	%47.1
Toxemia	29	%21.0
Urinary tract infection	24	%17.4
vomiting	20	%14.5

Table (6) shows the distribution of mothers according to previous caesarean section

Previous caesarean sections	**Frequency**	**Percentage**
One time	13	%43.3
Two times	7	%23.3
Three times	6	%20.0
4 times and more	4	%13.4
Total	30	%100

Table (7) shows the distribution of mothers according to indications for Caesarean section

Reasons	**Frequency**	**Percentage**
Disease and pregnancy complications	39	%31.5
Previous caesarean sections	30	%24.2
Failure induction and prolonged labour	16	%12.9
Fetal distress	11	%8.8
Malpresentation and malposition cause	8	%6.5
Desire of mother	6	%4.8
Bleeding during pregnancy (placenta previa and abruptio placenta)	5	%4.0
Mother's age (very young, old)	4	%3.2
Twin and multiple pregnancy	3	%2.4
Congenital abnormality of fetus	2	%1.6
Total	124	%100