

Literature Review

(2-1) Previous study:

Study was conducted in tertiary care hospital for Peshawar by Mohammed Naeem, et 2004, the aim of study was to investigate the rate and indications of elective and emergency caesarean section. The results showed the causes of emergency caesarean were fetal distress 17.1%, while obstructive labour 16.1%, and previous caesarean section 15%, breech presentation 9.5%, pregnancy induced hypertension (PIH) 5.7% (7).

Study was conducted in north-central Liberia by Matthew Gartl and, et may 2009 the aim of study was to access to facility delivery and caesarean section in north-central Liberia. Common indication for caesarean delivery included cephalo pelvic disproportion (50%), previous caesarean delivery (12.7%), antepartum haemorrhage due to placenta previa or placental abruption (10.2%), eclampsia (8.5%), breech presentation (5.0%) and ruptured uterus (4.2%). (8)

(2-2) Normal labour: it is process of birth in response to uterine contraction the lower segment stretched and then the cervix dilate allow the body to descend through the pelvis. (9)

Stages of labour: first stage: from the onset of labor pain to full dilatation of cervix, Second stage: From the full dilatation of cervix to delivery of fetus, Third Stage of the delivery of the placenta **Symptom of labour** : Painful uterine contraction, show, Rupture of the membrane, Shortening and dilatation **Duration of labour:** 12 hours in prima gravida, 8 hours in multipara (9)

Mechanism of labour: the mechanism of labor known as cardinal movements of labor is the positional changes that the fetus goes through to best navigate the birth process **Engagement** : when the greatest

diameter of the fetal head passes through the pelvic inlet ,can occur late in pregnancy or in early in labor **Descent:** movement of the fetus through the birth canal during the first and second stage of labor **Flexion:** when the chin of the fetus move toward the fetal chest occur when the descending head meets resistance from maternal tissues ,result in the smallest fetal diameter to the maternal pelvic dimension ,normally occur early in labor **Internal rotation:** when the rotation of the fetal head aligns the long axis of the fetal head with the long axis of the maternal pelvis ,occur mainly during second stage of labor **Extension:** facilitated by resistance of the pelvic floor that causes the presenting part to pivot beneath the pubic symphysis and the head to be delivered ,occur during the second stage of labor **External rotation :** during this movement ,the sagittal suture move to transverse diameter and the shoulder align in the anteroposterior diameter .the sagittal suture maintain alignment with the fetal trunk as trunk navigates through the pelvic **Expulsion :** the shoulder and remainder of the body are delivered (10)

(2-3) Caesarean section: an operative procedure to deliver available fetus or more through abdominal and uterine incisions. (11)

Types of caesarean according to timing: elective caesarean section : the operation is done at preselected time before onset labour usually at 37weeks,emergency caesarean section : the operation is done after the onset of labour.(11)

Type of caesarean section according to the site of uterine incision :- upper segment caesarean section (classical) The incision is done in the upper uterine segment and it is always vertical lower segment caesarean section :The incision is done in the lower uterine segment and may be transverse or vertical in some condition. (11)

(2-4) Emergency caesarean section: even if you plan a vaginal birth ,sometimes thing don't go as expected and you may need a caesarean it

may be the safest option if you or your baby is at risk ,an emergency caesarean may need to be done very quickly ,and there may not be time for you to consider all the option.(12)

Emergency as a serious situation or occurrence that happens unexpectedly and demands immediate action. (13)

(2-5) Fetus indication: placenta previa: placenta previa is defined as placenta that has implanted into the lower segment of the uterus it is now classified as either major in which the placenta is covering the internal os or minor when the placenta is sited with in the lower segment of the uterus but does not cover the cervical os The incidence the uk is approximately 5per1000and is the increasing due to the rising caesarean section rate and increasing maternal age. (14)

Fetal distress: it is a state of inadequate oxygenation and inadequate elimination of carbon dioxide, causes associated with maternal cardiac failure ,pulmonary diseases ,anesthetic agent causing hypotension ,severanaemia ,eclampsia fit placental cases ,placental compression as in tonically contracted uterus ,prolonged labour after rupture of membranes ,the old method to control bleeding from a placenta praevia , placental insufficiency due to acute causes as separation or infarcts ,umbilical cord causes as ture knots ,tight coils around the neck ,prolapsed cord leading to compression and vasospasm of it vessels,compression by the forceps ,rupture o vasa praevia ,fetal causes as cerebral oedema and ischemia leading to decreased blood supply to the respiratory center in medulla these my result from intracranial haemorrhage ,depressed skull fracture.(15)

placental abruption: a placental abruption is separation of a normally sited placenta form the uterine wall in most cases the separation reaches the edge of the placenta tracks down to the cervix and is revealed as vaginal bleeding the remaining cases are concealed and present as uterine

pain and potentially maternal shock or fetal distress without obvious bleeding the fetus is at risk because of hypoxia following placental separation and premature delivery the mother is at risk of hypovolaemic shock clotting disorders and consequent more wide spread organ damage.(16)

Abnormal presentation: face presentation: occurs when the fetal head is hyper extended such that the fetal face between the chin and orbits is presenting part. (17)

Shoulder presentation: shoulder (or acromion)presentation occurs when the long axis of the fetus is perpendicular or at an acute angle to the long axis of the mother as occurs with a transverse or oblique lie the oblique lie is unstable and usually converts to a longitudinal or transverse lie. (17)

Brow presentation: occurs when the presenting part of the fetus is between fontanel this type of presentation arises as the result of extension of the fetal head such that it is midway between flexion (vertex presentation).(17)

Compound presentation: occurs when a fetal extremity prolapses alongside the presenting part and both parts enter the maternal pelvis at the same time this type of presentation occurs more frequently with premature gestation. (17)

Breech presentation: occurs when baby is born bottom first instead of head first ,around 3-5% of pregnant women at term (37-40 weeks pregnant) will have breech baby, most babies in the breech position are born by caesarean section because it is seen as than being born vaginally.(18)

Sizable baby: macrosomia means" large body" and is used to describe a newborn who much larger than average,Babies with macrosomia weight more than 8 pounds ,13 ounces (4,000 grams) at birth,Macrosomia babies are more likely to have difficult delivery.(19)

Umbilical cord accident (cord prolapsed): is defined as the presence of umbilical cord below the fetal presenting part when the membranes are intact , the risk factors for cord prolapsed is maternal causes(pelvic tumours or narrow pelvis)or fetal causes (prematurity, malpresentation, multiplepregnancy poly hydramnios, placenta previa , large baby).(20)

(2-6) Maternal indication :Pervious caesarean section: if you had a pervious caesarean section you can opt for vaginal birth the second time or VBAC but keep in mind that most of the time a vaginal birth after caesarean section can lead to uterine rupture at the at the site of pervious caesarean section this could lead to an emergency caesarean section in the labour room talk to your doctor before hand to know if a vaginal birth after a caesarean section is right for you and prepare accordingly.(21)

Cephalopelvic Disproportion (CPD); the is a condition where the mother pelvis is smaller and so obstructs the baby head to smoothly slide through the birth canal.(21)

Hypertensive disorders : pre eclampsia is a disease of pregnancy characterized by blood pressure of 140\90 mmHg or more on two separate occasions after the 20th week o pregnancy in a previously normotensive women this is accompanied by significant proteinuria (300mg in 24 hours) eclampsia is the same condition that has proceeded to the presence of convulsions imminent eclampsia (the development of seizures) or fulminating pre eclampsia ,is the transitional condition characterized by increasing symptoms and sign.(22)

Uterine rupture : uterine rupture or a tear in the uterus usually happens due to a previous uterine injury it is rare occurring with an incidence of 0,03-0,3 per cent it occurs mainly in association with a previous caesarean section this is because scar tissue does not have the same inherent strength as myometrium however scarring can also exist as result of previous uterine surgery such as a surgical evacuation of retained

products of conception resulting in a perforation the vast majority of cases occur during labour usually during late first stage or the active second stage. (22)

Premature rupture of membranes : it is rupture of membranes before onset of labour so it more rate to call it "pre labour rupture of membranes "incidence 10% of term pregnancy and more in preterm labour, causes associated of rupture of membranes cervical incompetence, polyhydramnios, multiple pregnancy ,mal presentations part is not fitting against the lower uterine segment, chorioamnionitis.(23)

Obstructed Labour: labour is said to be obstructed when there is no progress in spite of strong uterine contraction ,this may be shown by failure of the cervix to dilate or failure of the presenting part to descend through the birth canal ,it is a most dangerous condition if it is unstead, and can be fetal to both mother and fetus,causes associated of obstructed labour maternal conditions,contraction or deformity the bony pelvis , pelvis tumour , uterine fibroids ,ovarian tumours, tumor of rectum, bladder or pelvis bones, pelvic kidney ,abnormalities of uterus or vagina ,stenosis of the cervix or vagina,obstruction by one horn of a double uterus, contraction ring off uterus Fetal condition- large fetus, malposition or malpresentation, persistent occipitodposterior or transverse position ,mentoposterior position ,brow presentation ,breech presentation ,shoulder presentation (rare in the UK but common in countries with inadequate antenatal care) ,compound presentation,locked twins,congenital ,abnormalities of the fetus, hydrocephalus ,fetal ascites abdominal tumour, conjoined twins.(23)

Prolonged labour: prolonged latent more than 20 hours in primigravida and 14 hours in multipara may be due to excessive analgesia early in labour, **Protraction disorders:** prolonged active phase cervical dilatation less than 1,2cm\hour in primigravida and 1,5cm\hour in multipara.

Delayed descent of the presenting part less than 1cm\hour in primigravida and 2cm\hour in multipara may be due to disproportion treated by caesarean section ,excessive analgesia treated by oxytocin, malposition (occipitoposterior) treated by oxytocin.(23)

(2-7) Complication: caesarean section is a major operation which can be associated with significant morbidity and mortality

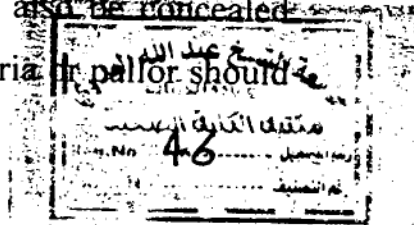
Complication may be categorized into immediate, early and late.(24)

Immediate :Anaesthetic general anesthesia can be associated with complication of intubation such as hypoxia, aspiration or failed intubation , awareness(resulting from an inadequate dose of anesthesia or a drug error) or, as with any drug administration, anaphylaxis. Regional analgesia can also have immediate complications include: hypotension , a total spinal anesthetic, adural puncture and infection (the risk of meningitis is low , but spinal abscesses can form).(24)

Haemorrhage: this can occur from the uterine edges , extended angles or the placenta bed , but as with vaginal delivery , the most common causes is uterine atony .(24)

Fetal complication: fetal injuries complicate a small proportion of cs with the most common being fetal laceration .other trauma such as cephalohaematoma , clavicular fracture, brachial plexus injury, skull fracture and facial nerve palsy can occur and the baby should always be handled gently. Neonatal respiratory morbidity may complicate CS due to iatrogenic prematurity , delay in the clearance of fluid from the fetal lungs , or a lack of the catecholamine surge experienced during vaginal delivery .(24)

Early:Haemorrhage: haemorrhage may occur in the early recovery period this may be clearly evident if the patient is bleeding vaginally, in to a drain or through the abdominal wound ,it may also be concealed either intrauterine or intraperitoneal tachycardia oliguria ~~it pallor should~~



alert and a normal blood pressure should not reassure as hypotension is a late sign .(24)

Paralytic ileus: a paralytic ileus may occur post operatively the bowel may become adynamic ,lacking in normal peristaltic contractions exacerbating factors include sepsis ,hypokalaemia ,hyponatraemia ,uraemia and certain drugs .(24)

Thromboembolic disease :women have CS are at increased risk of venous thromboembolic disease (VTE) due to their pregnancy and surgery ,other risk factors include obesity ,immobility ,thrombophilia ,smoking family history and previous history of VTE it is leading causes of maternal death .(24)

Late :Future fertility : women who have had a CS are less likely than those who have a vaginal delivery to have further children whether this is due to the surgery or indication for the surgery is unclear Increased risk of scar rupture :The risk of uterine rupture is approximately 0,5% in subsequent labours this may cause significant morbidity and mortality to both the mother and baby .(24)

Placenta praevia: the more CS a women has the greater the chance of placenta praevia in a future pregnancy Adhesions ,hernia formation and fistula formation may occur and it is very rare (24)

Chapter three

Methodology

(3-1) Study design:

Study was conducted in Atbara hospital from (March to July 2018).

(3-2) Study area:

The study was conducted in Atbara teaching hospital.

This study in river Nile state in Atbara hospital, consist of the following **section:** Medical ,surgical, obstetrics and gynecology, nursery, dialysis center ,intensive care unit, cardiac care unit, electro cardio gram ,ear , nose and throat ophthalmic.

(3-3) Study population:

Women attended deliver by normal delivery.

(3-4) Study sample size:

Total cover 120 sample size.

(3-5) Inclusion criteria:

Women normal labour converted to emergency caesarean section in Atbara hospital.

(3-6) Excluded criteria:

Women delivery by normal labour in Atbara hospital.

(3-7) Data collection tool:

Conducted by questionnaire.

(3-8) Data collection technique:

The information was obtained from mother.

(3-9) Data analysis:

by excel program and SPSS the data p value consider to be significant if p value 0,05 calculate interval will use other biostatistical test t test and Ch sample technique the data will present in table and graphs.

Data analysis by SPSS (statistical package for the social sciences).

(3-10) Ethical consideration :

The research conducted after approval taken from university of Elshaikh Abdallah Elbadry and the Atbara hospital and consent from women.

Chapter four

Data analysis:

Table (4-1) Distribution of study group according to the age

Variable	Description	Frequency	Percent
Age	Under 20	12	10%
	20less than 40	105	87.5%
	40-55	3	2.5%

Table(4-2):Distribution of study group according to the a dress

Variable	Description	Frequency	Percent
A dress	In Atbara	69	57.5%
	Out side Atbara	51	42.5%

Table (4-3) : Distribution of study group according to the occupation

Variable	Description	Frequency	Percent
Occupation	House wife	101	84.2%
	Employ	19	15.8%

Figure(4-1) Distribution of study group according to the education level

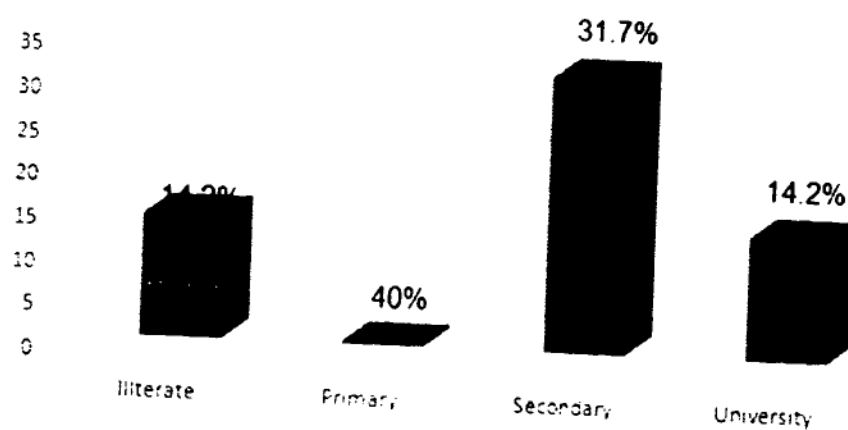


Table (4-4): Distribution of study group to the mother parity

Variable	Description	Frequency	Percent
Mother parity	Prima	33	27.5%
	Under 5	67	55.8%
	Above 5	20	16.7%

Figure (4-2) Distribution of study group according to type of previous labour

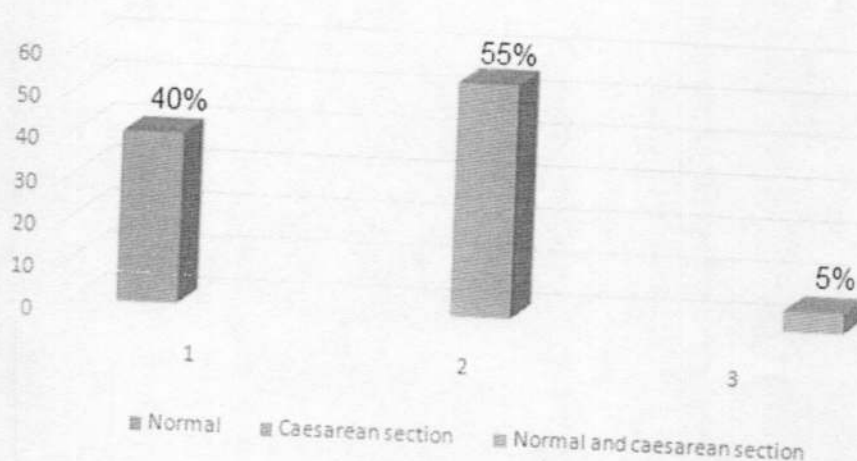


Table (4-5) Description of study group according to health facility

Variable	Description	Frequency	Percent
Health facility	Yes	117	97.5%
	No	3	2.5%

Figure (4-3) : Distribution of study group according to the follow up

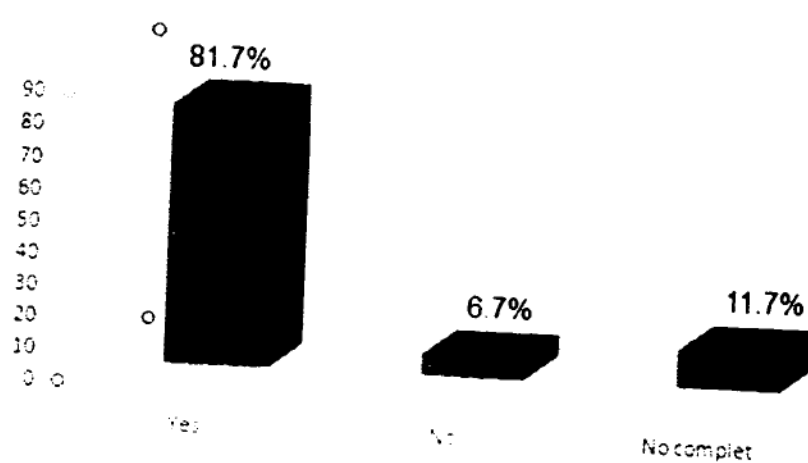


Table (4-5): Distribution of study group according to the following test

Variable		Description	Frequency	Percent
Which of the following test	Abdomen exam	Yes	109	90.8%
		No	11	9.2%
	Hb	Yes	111	92.5%
		No	9	7.2%
	Ultra sound	Yes	104	86.7%
		No	16	13.3%
	Blood group	Yes	99	82.5%
		No	21	17.5%

Table (4-4): Distribution of study group according to medication during follow up

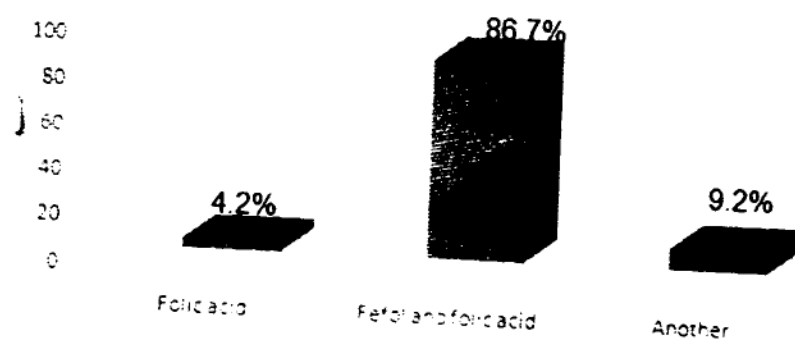


Table (4-7): Distribution of study group according to causes of emergency caesarean section

Variable	Description	Frequency	Percent
Causes of emergency caesarean section	Causes associated with mother	105	87.5%
	Causes associated with fetus	15	12.5 %

Figure (4-5): distribution of study group according cause associated of fetus

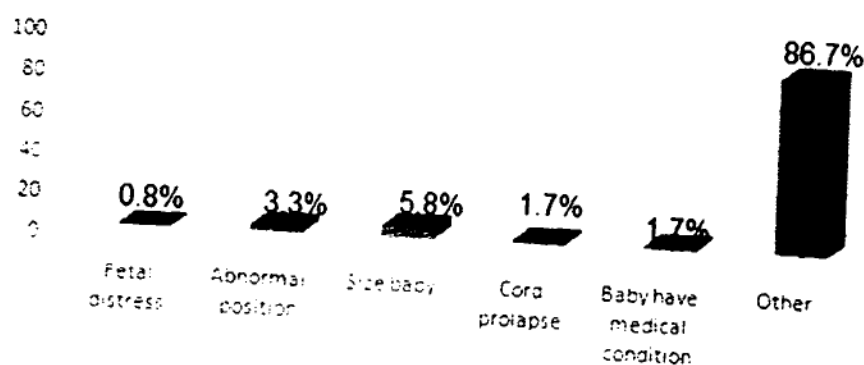
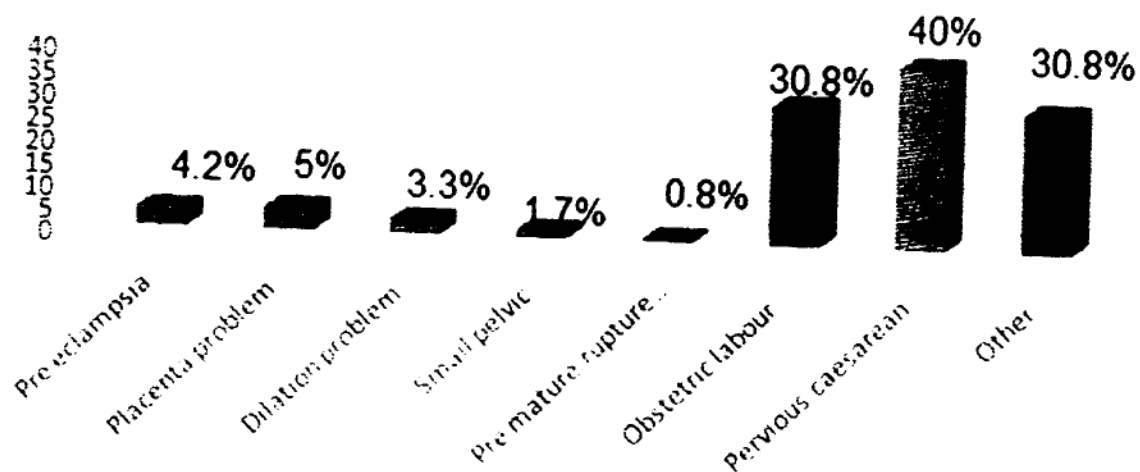


Figure (4-6) distribution of study group according to associated causes of mother



Variable		P value
Occupation	Causes of mother	0.150
Health facility	Follow up	0.000
Education level	Medication	0.140

Chapter five

Result & Discussion

Results:

This study is cross sectional study in the Atbara hospital of department for obstetric and genocological included 120 mother.

Table (4-1) shows age range under 20years 10%, 20 under 40years 87,5% and age between 40-50years 2,5%.

Table (4-2) shows address the majority of them from the Atbara 57,5% and few of them out side Atbara 42,5%.

Table (4-3) shows occupational the majority of mother house wife 84,2% and few of them employees 15,8%.

Figure(4-1) shows level of education majority of mother 14,2% and primary 40% secondary 31,7% and university education level 14,2% .

Table (4-4) shows number of mother parity primary 27,5% below 5 55,8% and higher form 5 16,7%.

Figure (4-2) show type of labour 40% caesarean section about 55% and normal and caesarean section 5%.

Table (4-5) shows the health facility about 97,5% and few of them not health facility 2,5 %.

Figure (4-3) shows ante natal care and follow up yes 81,7 % no 6,7% and incomplete 11,7%

Table (4-5) shows investigation during follow up Abdomen examination about 90,8%, Hb 92,5%, ultra sound 85,7% and blood group 82,5% .

Figure (4-4) shows medication during follow up fefol about 4,2% fefol and folic acid 86,7% and other 9,2% .

Table (4-7) shows causes of emergency caesarean section associated with mother 87,5%, causes associated with fetus 12,5 .

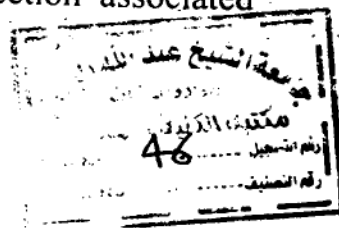


Figure (4-5) shows causes associated with fetus majority sizeable baby 5,8% and few include respiratory distress ,8%, aumbilical cord prolapse 1,7% baby have medical condition 1,7% ,mal presentation 3,3% .

Figure (4-6) shows causes associated with maternity majority previous caesarean section 40%, obstetric labour 30,8% while ,few include pre-eclampsia 4,2%, placenta problem 5% dilation problem 3,3% small pelvic 1,7% pre mature rupture of membrane ,8% and other 30,8% .

Discussion

This study find the major causes associated with emergency caesarean section was previous caesarean section, obstetric labour. While other causes is few, the first causes associated with fetus sizable baby, malpresentation while other causes is few.

This study is not similar conducted by Mohammed Naeem the aim of study was to rate and indication of emergency caesarean section the major causes fetal distress not significant our study because investigate small sample size (25)

This study is not similar conducted by Matthew Gartland the aim of study access to facility delivery and caesarean section in north-central Liberia the major causes cephalo pelvic disproportion because investigate small sample size (26)

the majority of them is primary education level, the majority of parity under 5 the majority of type previous labour caesarean section

the correlation between health facility and follow up, also relation between occupation and causes of emergency caesarean section.

our study found relation between education level and use medication the study is conducted by the common causes of emergency caesarean section : previous caesarean section, obstetric labour, malpresentation, sizable baby.

Chapter six

Conclusion

Conclusion :

This study conclude common causes of emergency caesarean section for women attending at Atbara hospital for normal deliver.

Most causes associated with mother is the pervious caesarean section and obstructed labour, causes associated with fetus is the sizable baby and mal presentation .

Recommendations:

To study recommendation :

We recommend the hospital management be interested in receiving emergency cases and providing the environment.

We recommend the hospital manager to encourage the follow up.

We recommend mothers to continues folic acid and fefol and vitamin

Instruct pregnancy women take health diet.

Recommend pregnancy women maintain normal weight.

Recommend family and health care to put good plan to pregnancy women.

Recommend pregnancy women to avoid effort and stress.

Recommend health facility and care given to give proper care for pregnant women.

Recommend staff urgently addressed to reduce delay.

Recommend government available health facility.

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1-Age of mother:

- a-Under 20() b-20 less than 40() c-40 -55()

2-Address:

- a-In Atbara () b-Outside Atbara ()

3-Occupation:

- a-House wife() b-Employee()

4-Education level:

- a- Illiterate b-Primary() c- Secondary()
d- University()

5-Mother parity:

- a-Primigravida () b-Multi Para() c-Grand multi Para()

6-Type of previous labor:

- a-Normal () b-caesarean section() c- normal and caesarean ()

7-Which find health care facility:

- a-Yes () b-No ()

8-Ante natal and follow up:

- a-Yes() b-No () c- no complete ()

9-Which of the following test :

- a-Abdominal examination () b- HB() c- ultra sound ()
d-Blood grouping ()

10-If use any medication during first trimester:

a-folic acid () b-folic acid and fefol () other ()

11-Causes of emergency caesarean section:

1-Mother:

a-Pre eclampsia ()

b-Placenta problem ()

c-Dilation problem ()

d-small pelvic ()

e-obestetrics labor ()

f-previous caesarean section ()

h-pre mature rupture of membrane ()

g-other ()

2-Fetus :

a- Fetal distress ()

b-Abnormal position ()

c-Size baby ()

d- Cord prolapse ()

e- Baby have medical condition ()

f-other ()



بحث بعنوان :

الاسباب التي تجعل الولادة الطبيعية تتحول الي عملية قيصرية طارئة

1-عمر الام:

أ-اقل من 20 () ب-20 و اقل من 40 () ج-40 - 55 ()

2- السكن:

أ-عطبرة () ب- خارج عطبرة ()

3-الوظيفة :

أ- ربة منزل () ب- عامله ()

4-المستوى التعليمي:

أ-امي () ب- اولي () ج- ثانوي () د- جامعي ()

5- عدد الولادات :

أ- اولية () ب- اقل من 5 () ج- اكثر من 5 ()

6-انواع الولادات السابقة :

أ- طبيعية () ب- قيصرية () ج- طبيعية وقيصرية ()

7- وجود المراكز الصحية :

أ نعم () ب -لا ()

8-الرعاية الاولية والمتابعة:

أ نعم () ب- لا () ج- غير كاملة ()

9- الفحوصات التي اجريت اثناء المتابعة :

أ كشف البطن () ب - الدم ()

ج- الموجات الصوتية () د- الفصيلة ()

10- هل استخدمت ادوية اثناء فترة الحمل :

أ فوليك اسيد () ب- فوليك اسيد وفيفول () ج- اخرى ()

11- اسباب العملية القيصرية الطارئة :

1- اسباب خاصة بالام:

أ- تسم الحمل ()

ب- مشاكل المشيمة ()

ج- مشاكل التوسع ()

د- صغر حجم الحوض ()

هـ- تعسر الولادة ()

و- العملية القيصرية السابقة ()

ك- انفجار الأغشية الجنينية ()

م- أخرى ()

2- اسباب خاصة بالجنين:

أ- هبوط الجهاز التنفسي ()

ب- الوضعية الغير طبيعية ()

ج- كبر حجم الجنين ()

د- تدلي الحبل السري ()

هـ- مشاكل صحية اخرى ()

و- أخرى ()

بسم الله الرحمن الرحيم

RIVER NILE STATE
MINISTRY OF HEALTH
Atbara Teaching Hospital



ولاية نهر النيل
وزارة الصحة والمكث
مستشفى عطبرة التعليمي

المرقة: ٢/١٧

التاريخ: ١١ / ٣ / ٢٠١٨م

المستشفى / رئيس قسم التمريض

كلية العلوم الصحية بجامعة الشيخ عبد الله البدري

السلام عليكم ورحمة الله وبركاته

الموضوع / اعداد بحث تخرج

بالإشارة للموضوع أعلاه وبناءاً على خطابكم بتاريخ ٢٠١٨/٣/٥ لنفس الموضوع نفيدكم
بأننا لا نمانع من إجراء بحث التخرج التكميلي لنيل درجة البكالوريوس في علوم التمريض
بالمستشفى، مرفق لكم كشف بأسماء الطلاب.

ولكم جزيل الشكر: ::::

محمد مبارك عبد اللطيف
المدير الطبي العام