THAT THEY MAY BRING FORTH SAFELY THROUGH THE NATURAL ROUTE; THE PUSH AND PULL ROUTE

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All Heads of Departments

Other Members of Academia

Students (both LASU and LASUCOM)

My family members

Friends

Distinguished guests

Gentlemen of the Press

Ladies and Gentlemen

INTRODUCTION

It is with utmost humility together with immense gratitude to the Almighty God, the Omnipotence , the Omnipresence, the Omniscience that I stand before you this afternoon to deliver my Inaugural Lecture here at Lagos State University.This is perhaps the first from the department of Obstetrics and Gynaecology of the Lagos State University College of Medicine. Without doubt it has proven to be the fastest growing College of Medicine in the country and probably the most sort after. According to the latest ranking, the Lagos State University itself has been ranked the best State University in Nigeria and 13th amongst all Nigerian Universities and surely we deserve applause for that. Many thanks to the visionary founders of this great Institution and of course the unflinching and unalloyed support from the Government of Lagos State, without leaving out the indelible impact of previous Vice Chancellors and no doubt our current, dynamic ,amiable, uncompromising, and indefatigable leader in the person of Prof Olanrewaju Adigun Fagbohun.

This lecture is coming after my appointment as a Professor for some seven and a half years by the Lagos State University. It may well be that I am the oldest professor in terms of age to deliver an Inaugural lecture and at the twilight of my career. That is not really important. The real fact is that I Adekunle Abimbola Sobande, by the grace of the Almighty God, I am here to narrate my expedition in my chosen profession.

It is good to be ambitious, it is excellent to have dreams, it is desirable to set goals in life. However,from my experience in life, PREDESTINATION is the overriding and most significant determinant of whatever ones outcome in life is. Science cannot and will NEVER be able to explain that fact.

It does not matter,how and when you arrive at the destination. The important thing is getting there. After all there are several ways of arriving at the figure 7. I chose figure seven just by chance and it happened to be my birthday (this month) and also in Christianity the number 7 is associated with Completeness, not forgetting that we are in the 7th month of the year.

7+0= 7

6+1=7

99-92=7

And so on and so forth

Inaugural lectures are by design to celebrate recently made professors, either appointed or promoted. It's an avenue to inform colleagues, the campus community and the **general public** of their academic work to date, including current research and may be future plans . In fact, it is the gown meeting with the town during which relevant and germane issues in which the professor has explored extensively by way of research and offering solutions are highlighted. It is a discourse or exposition of the professor's expedition or journey in the Academic world. According to Prof Ade Ajayi, it is a debt owed to the academic community that appoints one a professor.

I want to thank you Mr Vice Chancellor sir,Prof Olanrewaju Adigun Fagbohun for giving me the opportunity to deliver this Inaugural lecture even at this time.

Obsterics and Gynaecology is that branch of Medicine that deals with female gender's medical and health issues in all its ramifications

The Obstetrics aspect relates to the study and care of the pregnant woman from conception till delivery and up till six weeks after.

In case of Gynaecology, it is the study and management of diseases of the female reproductive organs

Vulva

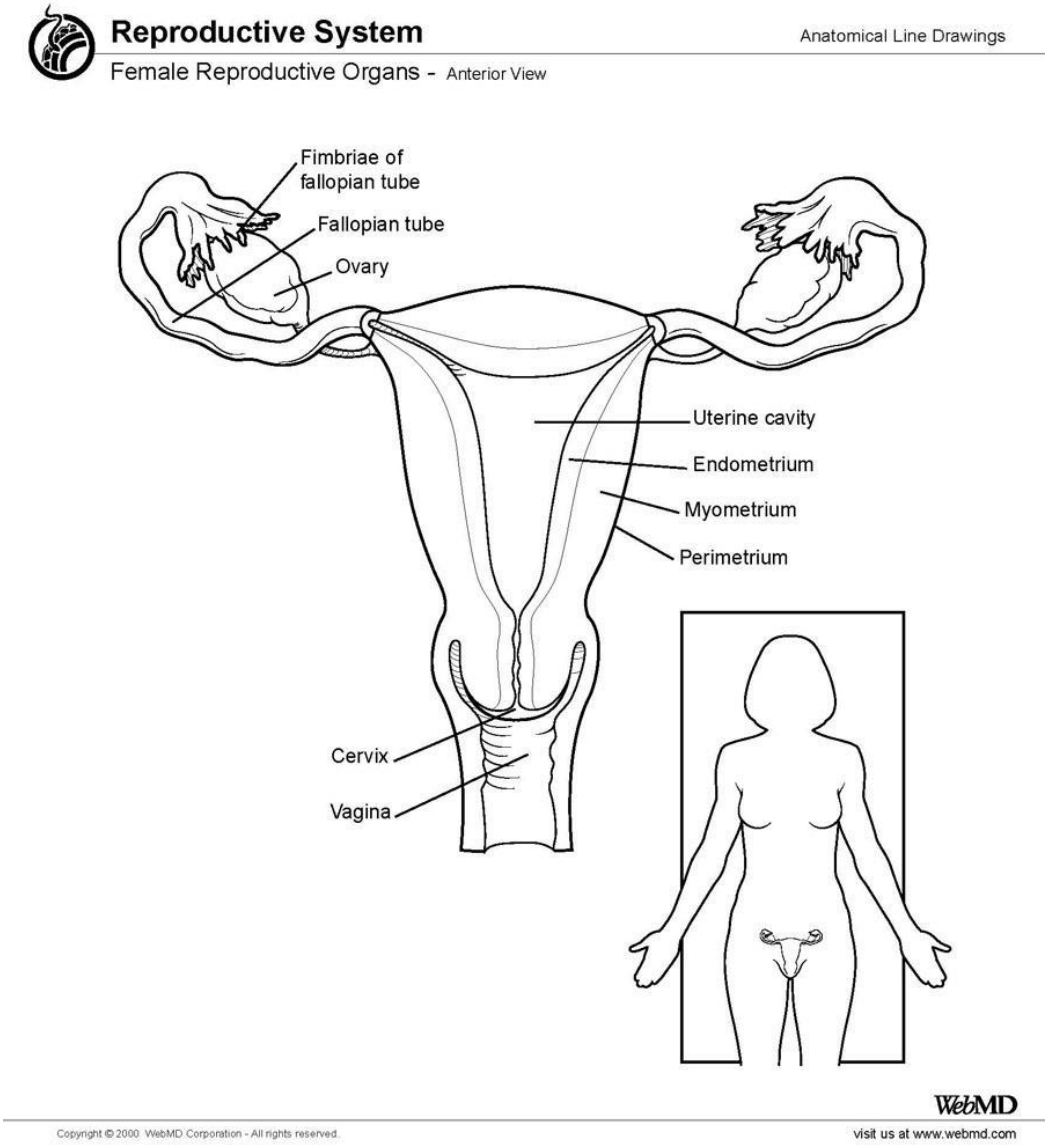
Vagina

Cervix

Uterus

Fallopian tubes

Ovaries.

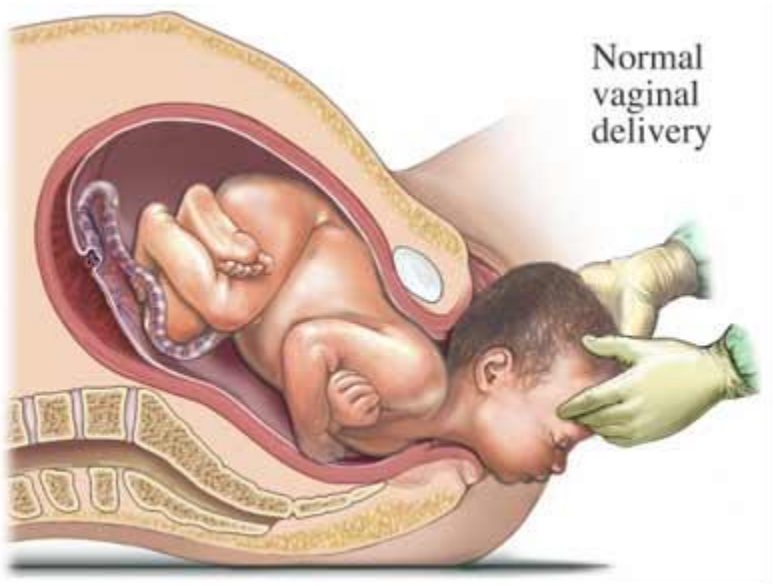


However, in some countries like Brazil and Germany, the gynaecologist in addition to the above, also treats breast conditions.I am glad to say that I am not competing with my colleague Professor of Radiology who works with the breast 24 hrs in a day

At the moment, there are sub-specialities at least five- Maternal and fetal medicine, Urogynaecology,Reproductive endocrinology and Infertility ,Gynaecological Oncology and Reproductive Health,

We Obstetricians have for a long time been given the nickname "**push and pull doctors**", meaning that all we do is encouraging laboring women to push while we assist them to deliver their babies by pulling.

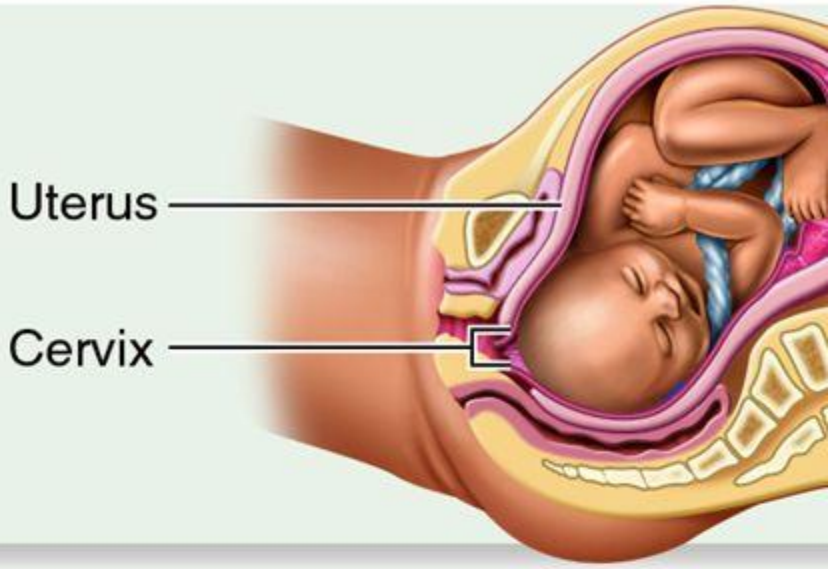
THE PUSH AND PULL METHOD



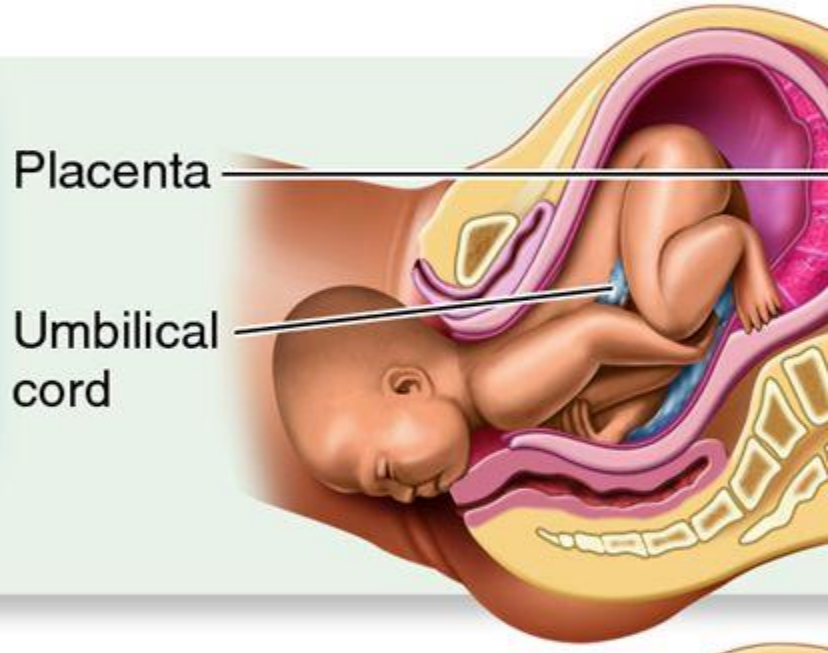
The word PUSH as in “Labour and Delivery” In Hausa language, is “Kitura Da Karfi ” In Igbo Language, it is Yia, while in Yoruba it means Ma gbin.In Arabic language it is Shidi.

By way of clarity, considering the fact that this is a town and gown gathering Labour in Obstetrics which is defined as regular and painful contractions of the uterus leading to cervical dilatation (opening) is divided into three stages(first, second and third stages)

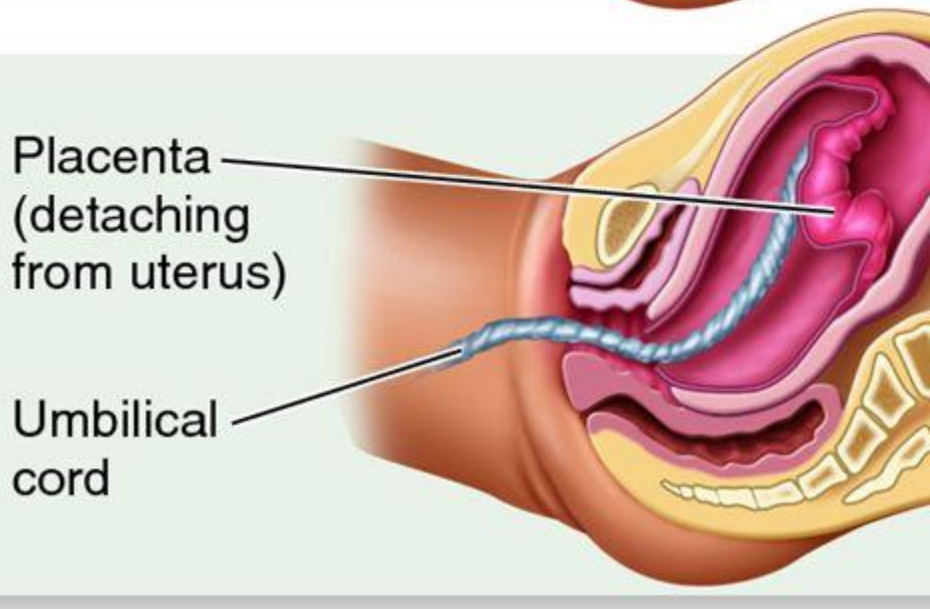
Stage 1:
The cervix relaxes, causing it to dilate and thin out.



Stage 2:
Uterine contractions increase in strength and the infant is delivered.



Stage 3:
The placenta is expelled.



The second stage of labour defined as the period between full dilatation (complete opening)of the cervix (neck of the womb)and delivery of the baby is usually accompanied by anxiety, and emotional stress for the mother to be and her relatives. .Its the very crucial time when the outcome of 287 days of discomfort, distress, sleeplessness ,anxiety and the likes) can be any one of these three

A win-win situation (mother and baby alive and well).**Picture**

A win-lose situation(mother alive and baby dead or vice versa).

A lose –lose situation(mother and baby dead).

No wonder you see that inexpressible joy from the mother after the baby is born- that smile that says it all "Oh yes, I made it.I am now in league of mothers(natural) .

But ,you know what,there is no greater or better reward in medical practice than seeing a new born baby make its first cry and at the same time the genuine smile from the mother.

Some have interpreted this baby's first cry as a protest against being born into a wicked and depraved world.

The first midwives (accoucheurs) as mentioned in the Holy Bible Shiphrah and Puah(Exodus 1:15)did all they could to save the Hebrew children and told Pharaoh that the Hebrew women delivered by themselves before the midwives got into the scene.We are told that God rewarded the midwives who allowed the normal process to go on.

There is a reward for all those who put in their best in ensuring a favourable pregnancy outcome for the mother and baby "especially if it is by the push and pull method"

MATERNAL MORTALITY (DEATH)

The very serious concern of any obstetrician especially in the developing world more so in the sub-saharan Africa is the teeming number of women who die avoidably during pregnancy and childbirth. It is a nagging problem, which in our environment, there is yet no singular solution in site .

By way of definition , it is the death of a woman while pregnant or within 42 days of termination of pregnancy irrespective of the duration and the site of pregnancy from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes

Definition of Maternal death. International Classification of Diseases (ICD)

MATERNAL MORTALITY RATIO

Maternal Mortality Ratio however is defined as the number of maternal deaths per 100,000 live births in a given period of time usually per year and may be used as a reference for assessing state of health of any nation.

International Classification of Diseases (ICD)

International Classification of Diseases,10th Revision Geneva ,World Health Organization 2004

The important determinants of maternal mortality are the

1.Levels of education and Economic buoyancy.In other words, countries with high per capita incomes have a low maternal mortality, and vice-versa.

Saffron Karlsen, Lale Say, João-Paulo Souza, Carol J Hogue, Dinorah L Calles., A Metin Gülmezoglu and Rosalind Raine. BMC Public Health 2011, 11:606

Other determinants are Maternal Mortality Ratio,

Presence of qualified birth attendants,

Antenatal care by qualified attendants,

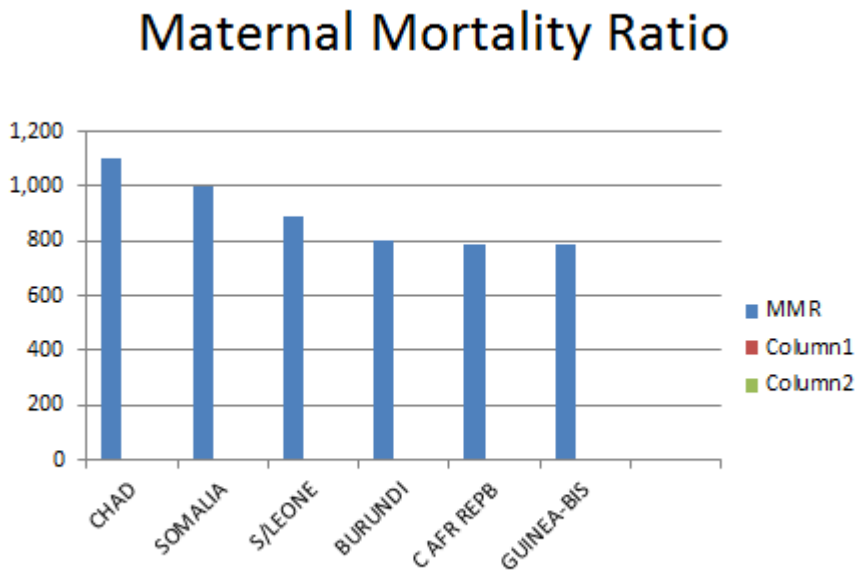
Number of antenatal visits,

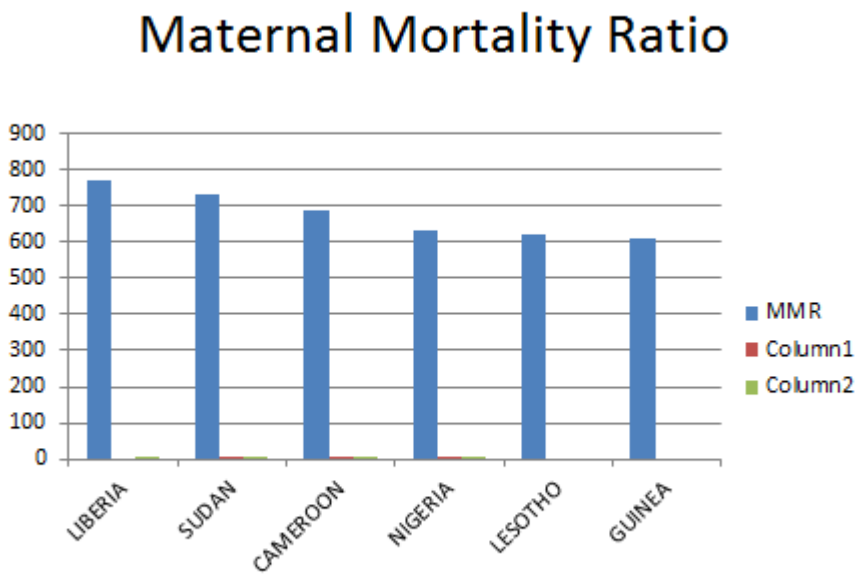
Use of contraception.

(**Stokoe U1. Determinants of maternal mortality in the developing world. Aust N Z J Obstet Gynaecol. 1991 Feb;31(1):8-16.)**

These have been shown to have unequal spread even within countries

(Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division)


Maternal Mortality Ratio
1,200
1,000
800
600
400
200
0
CHAD
SOMALIA
S/LEONE
BURUNDI
C AFR REPB
GUINEA-BIS
MMR
Column1
Column2


Maternal Mortality Ratio
900
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LIBERIA
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CAMEROON
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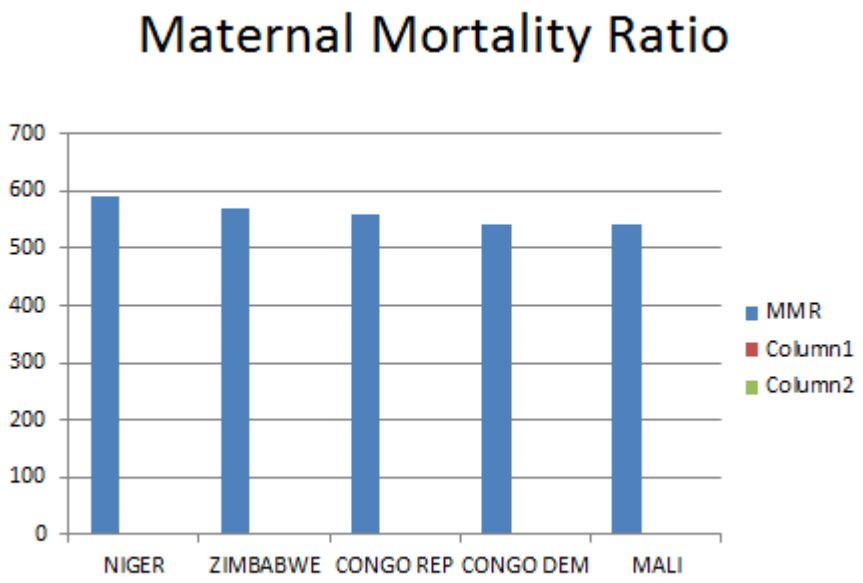
Maternal Mortality Ratio
700
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ZIMBABWE
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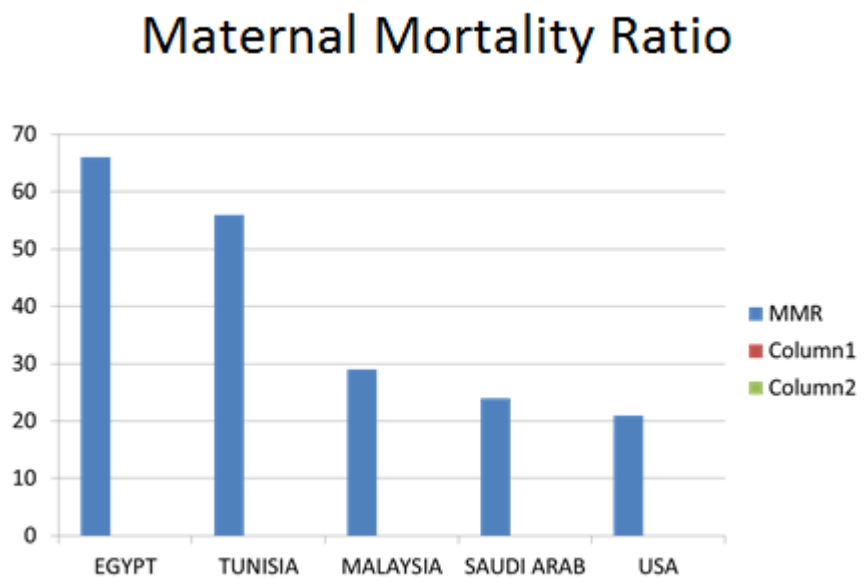
Maternal Mortality Ratio
70
60
50
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30
20
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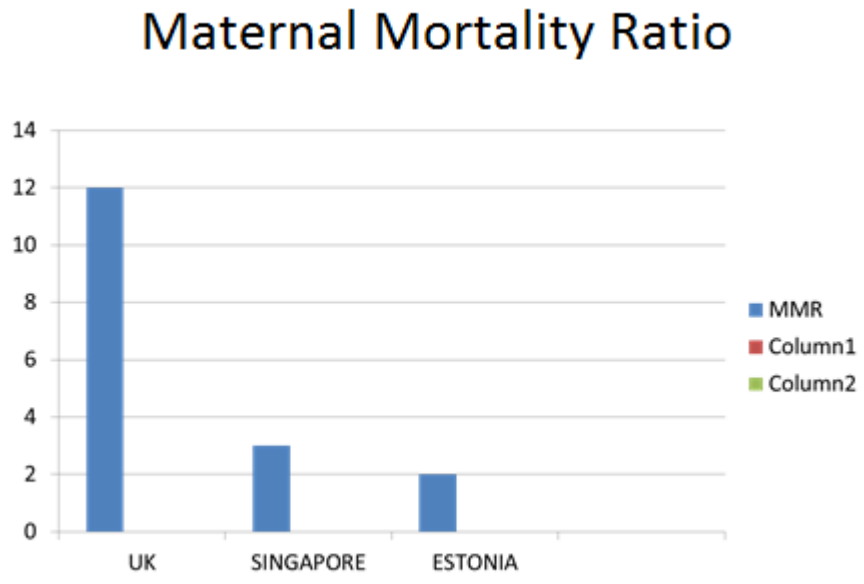
EGYPT
TUNISIA
MALAYSIA
SAUDI ARAB
USA
MMR
Column1
Column2


Maternal Mortality Ratio
14
12
10
8
6
4
2
0
UK
SINGAPORE
ESTONIA
MMR
Column1
Column2

In Nigeria, the trend over the last 13 years has shown some improvement. However, when compared with other less economically vibrant nations especially in the Africa, Gabon,Ghana,,Zambia ,Angola,Ethiopia,then there is not much to rejoice about.

THE TRENDS OF MATERNAL MORTALITY RATIO IN NIGERIA OVER A 13 YEAR PERIOD.

Nigeria	1990	1995	2000	2005	2013	Change in MMR between 1990 and 2013
MMR	1200	1100	950	740	560	- 52%

World Health Organization, UNICEF, UNFPA, The World Bank & the United Nations Population Division. (2014). *Maternal mortality in 1990-2013: Nigeria.* Geneva: WHO.

Having said that, it is regarded as a national tragedy when only one woman dies during pregnancy, and childbirth in the year in a country like Singapore . This is in contradistinction to about 55,000 women who die in Nigeria as a result of pregnancy or childbirth.

In the United Kingdom for example there is a statutory Confidential Enquiry every three years to audit the cases of maternal deaths and at the same time to critically appraise the management of each case whether or not it fell short of Internationally acceptable standard of practice.

I am happy to say here that recently,Lagos State Government has braised the trail again in partnership with SOGON (Society of Obstetricians and Gynaecologists of Nigeria) by setting up a panel of Confidential Enquiry comprising professionals (obstetricians, anaesthetists,internal medicine physicians,pathologists) all experts in their respective areas to audit as well as look critically into the circumstances surrounding any maternal death and where the case was deemed preventable, suggest ways to prevent its recurrence.

THE ROLE OF CAESAREAN SECTION (CS) IN MATERNAL MORTALITY/MORBIDITY

Caesarean section was coined from the Latin word "Caedere" meaning to Cut"

" lex Cesarea"- It was a Roman law promulgated in 715BC. It was a law which allowed this abdominal operation to be performed for a dying pregnant woman in the hope of saving the baby or as a postmortem for separate burial.

It is now probably the most common abdominal operation in Obstetrics performed in the interest of the mother, baby or both.

However, in recent times, a third indication "Social reason" has slowly crept into the list i.e wanting a baby to be born on a particular date, to mark an anniversary or memorable event.

Some woman will prefer Elective CS because they feel that they cannot cope with the pains of labour even with pain relief

Others want to avoid complications of vaginal delivery which usually occur with unsupervised vaginal delivery /untrained attendant

Incontinence (urinary, bowel)/Fistula.Inability to control passage of urine/faeces.

Sexual dysfunction and Utero-vaginal prolapse

Harrison et al showed many years ago that we were not doing enough CS in developing countries and that was in part responsible for the high maternal mortality in these poor resource countries. Presumably many of these women died from prolonged obstructed labour at home. At that time ,the CS rate was around 1.5% in most developing or underdeveloped countries

Harrison, K. A. (1980) Maternal Morrulirx in Zaria. Proceedings of an international conference organized by the Society of Gynaecology and Obstetrics of Nigeria. Rroderna Ekstrands Tryckeri A B. Lund. pp. 274-27

Caesarean section rate- defined as a percentage calculated by dividing the caesarean deliveries over the total number of live births in a period of time, normally one year.

There is no doubt about the fact that improved access to Emergency Obstetrics (especially to caesarean section) for dealing with complications was the single most important service that can rapidly reduce the high rates of maternal mortality in developing countries

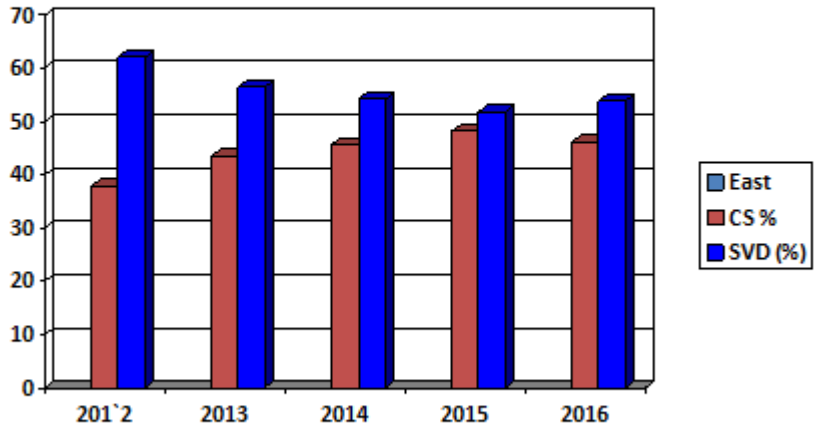
Over time however, CS rates have unfortunately risen substantially worldwide since the 1980s and is estimated to be around 35% in many centers while Brazil recorded a rate of 57% in 2014 even after WHO recommendation of 10-15% as the upper limit at the population level.
We have thus progressed from not doing enough to doing too many CS.

J Ye ,J Zhang, R Mikolajczk, MR Torloni, AM Gulmezoglu, AP Betran. Association between rates of caesarean section and maternal and neonatal mortality in the 21st century: a worldwide population-based ecological study with longitudinal data. BJOG.24 Aug 2015

Nonetheless ,in Nigeria,a very wide variation in the rates of CS has been recorded in institutional surveys varying from 5.39% in Calabar to 44% in Lagos. Unfortunately, the upward general trend in CS rate is going on unabated.

Osonwa O. K., Eko J. E., Ekeng P. E. TRENDS IN CAESAREAN SECTION AT CALABAR GENERAL HOSPITAL, CROSS RIVER STATE, NIGERIA. European Journal of Biology and Medical Science ResearchVol.4, No.1, pp.1-5, February 2016
.
At the Lagos State University Teaching Hospital,the department of Obstetrics and Gynaecology recorded a CS rate of about 44% over the last five years (2012-2016)

TREND IN CS AT LASUTH OVER 5YEARS



WHAT IS THE OPTIMUM CAESAREAN SECTION RATE?.

A group of experts convened by the World Health Organization in 1985 met in Fortaleza , Brazil to discuss the unacceptable and unjustified increase in CS rate and on the basis of available evidence concluded that **" there is no justification for any region to have a CS rate higher than 10-15%.**

Appropriate technology for birth.Lancet 1985;2(8452):436-7

Another meeting of experts was again convened by WHO in 2014 in Geneva Switzerland with the objective of establishing the current position of CS rate or range for optimal maternal and perinatal outcome at population level

CONCLUSION

1.Caesarean sections are effective in saving maternal and infant lives, but **ONLY** when they are required for medical reasons

2. At population level, caesarean section rates higher than 10% are not associated with reductions in maternal and newborn mortality rates

3**. Caesarean sections can cause significant and sometimes permanent complications, disability or death particularly in settings that lack the facilities and/or capacity to properly conduct safe surgery and treat surgical complications.**
4. Every effort should be made to provide caesarean sections to women in NEED, rather than striving to achieve a specific rate

WHO statement on Caesarean Section Rates. Geneva:World Health Organization;2015(WHO/RHR)"

The title of my INAUGURAL lecture "That they may bring forth safely through the natural route " by the push and pull method is therefore coined from the premise that natural process of fertilization could and should end up naturally in about 85-90% of cases,(allowing for the optimum Caesarean section rate of 10-15%) with a normal vaginal delivery of a healthy baby and mother.

The Obstetric literature is replete with incontrovertible evidence showing that it is safer to deliver a baby by the vaginal route (push and pull) route than by Caesarean section.

This is shown by a **lower maternal mortality**,(Esteves-Pereira et al,Clarks et al,Azim SI et al ,Kamilya GI et al,and Okonofua et al)

Esteves-Pereira AP,Deneux-Tharaux C, Nakamura-Pereira M, Saucedo M, Bouvier-Colle MH, Leal Mdo C.Caesarean delivery and Postpartum Maternal Mortality: A Population –Based Case Control Study in Brazil.PLoS One- 2016 Apr 13;11(4)

Clark et al. Clark SL, Belfort MA, Dildy GA, et al. Maternal death in the 21st century: causes, prevention, and relationship to cesarean delivery. Am J Obstet Gynecol 2008;199:36.e1-36.e5.

Azam SI ,Khanam A, Tiriapur S,Khan K. Planned caesarean secion or trial of vaginal delivery? A meta-analysis .Current Opin Obstet Gynecol 2014 Dec;26(6) 461-8

Kamilya GI ,Seal SL,Mukherji J, Bhattacharyya SK, Hazra A.Maternal mortality and cesarean delivery: an analytical observational study.J Obstet Gynecol Res 2010 Apr ;36(2)248-53.

Okonofua FE, Makinde ON, Ayangade SO. Yearly trends in caesarean section and cesarean mortality at Ile-Ife,Nigeria. Trop J Obstet Gynaecol 1988;1(1):31-5

At our hospital in LASUTH , over the last five years 2012-2016, the crude maternal deaths from CS at 0.41% was almost double that of vaginal delivery , 0.24%.This result is in concordance with other published works.

Lower maternal morbidity,Curtin SC et al as well as **perinatal mortality and morbidity** (Beena D. Kamath et al, Wankaew N et al)when delivery is by the vaginal route .

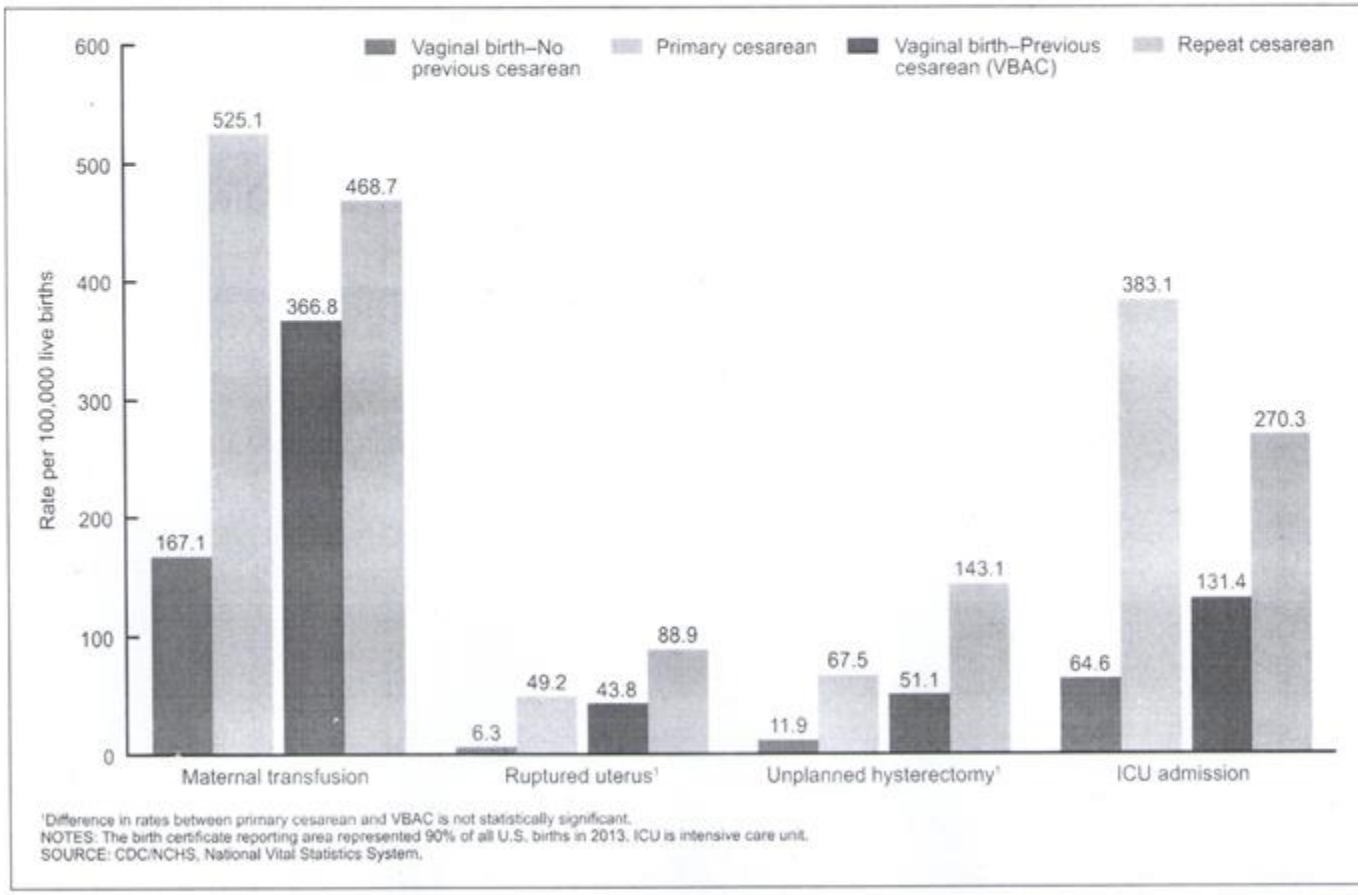
Sally C. Curtin, Kimberly D. Gregory, Lisa M. Korst, Sayeedha F.G. Uddin. Maternal Morbidity for Vaginal and Cesarean Deliveries According to Previous Cesarean History: New Data From the Birth Certificate, 2013 . U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention National Center for Health Statistics National Vital Statistics System

Beena D. Kamath,, James K. Todd, Judith E. Glazner, Dennis Lezotte, and Anne M. Lynch. Neonatal Outcomes After Elective Cesarean Delivery. Obstet Gynecol. 2009 Jun; 113(6): 1231–1238.doi: 10.1097/AOG.0b013e3181a66d57

Wankaew N, Jirapradittha J, Kiatchoosakun P. Neonatal morbidity and mortality for repeated cesarean section vs. normal vaginal delivery to uncomplicated term pregnancies at Srinagarind Hospital. J Med Assoc Thai. 2013 Jun;96(6):654-60.

Maternal Morbidity for Vaginal and Cesarean Deliveries, According to Previous Cesarean History: New Data From the Birth Certificate, 2013

by Sally C. Curtin, M.A., National Center for Health Statistics; Kimberly D. Gregory, M.D., M.P.H., Cedars-Sinai Medical Center; Lisa M. Korst, M.D., Ph.D., Childbirth Research Associates, LLC; and Sayeedha F.G. Uddin, M.D., M.P.H., National Center for Health Statistics



[1]Difference in rates between primary cesarean and VBAC is not statistically significant.
NOTES: The birth certificate reporting area represented 90% of all U.S. births in 2013. ICU is intensive care unit.
SOURCE: CDC/NCHS, National Vital Statistics System.

Figure 1. Maternal morbidity, by method of delivery and previous cesarean history: 41-state and District of Columbia reporting

How can we as Obstetricians help to make deliveries more natural and normal?That has been my concern and the focus of my research work

It is possible to perform a CS in 15 minutes and get it done over with while trying to avoid as much as possible litigation problems

However, we tend to forget AMONG OTHER IMMEDIATE COMPLICATIONS, the Future Complications of Caesarean Section-

-uterine scar rupture in subsequent pregnancies,

-ectopic pregnancy,(pregnancy outside the uterus)

-chronic pelvic pain resulting from intra abdominal adhesions,

-infertility,(inability to conceive)

-placenta praevia, accreta ,(low lying/abnormal attachment of placenta to the uterus)

-massive haemorrage and maternal death

MY CONTRIBUTION TO SCHOLARSHIP.

WHAT I HAVE DONE IN MY ACADEMIC CAREER .

Maternal and fetal medicine which is my area of interest and specialization deals with the more detailed study and understanding of the pregnant woman and the unborn baby up to about 6 weeks post delivery.

In case of Maternal medicine , it deals with all medical conditions during pregnancy including labour and delivery up till six weeks after delivery.

Fetal medicine specialist uses the ultrasound machine like a toy to diagnose fetal diseases and sometimes treat the fetus in-utero (prior to birth)

It is a matter of choice that I have focused on Maternal Medicine with special interest in Labour and Delivery as well as Medical conditions during pregnancy

I am a clinician.What I mean is that my work is skill based .

I will be demonstrating to you how in my research work ,I have been able to show that we can reduce the rate of caesarean section and therefore increase the rate of safe vaginal delivery " by the push and pull route" ,thus reducing maternal mortality and morbidity together with better fetal outcome

This can be seen in my areas of research under the following headings

1. Breech presentation and its management with special reference to selective external cephalic version/assisted vaginal breech delivery.
2. Induction of labour in various groups of pregnant patients.

   OTHER AREAS OF MY RESEARCH INCLUDE

3. Medical conditions in pregnancy (diabetes, hypertension, asthma)
4. General Obstetrics-

a.Use of cervical cerclage for prevention of premature births

b.Stillbirth studies.

c.Antepartum haemorrhage

BREECH PRESENTATION AND DELIVERY (THE ROLE OF SELECTIVE EXTERNAL CEPHALIC VERSION)

One of my early research works was on management of breech presentation at term with particular focus **on Selective External Cephalic Version.**

The term "Breech Presentation" refers to a situation where the buttocks of the fetus presents first before the head in the pelvis.The word "Breech" may derive from the word britches which describes a cloth covering the loins and thighs. Breech presentation is more common remote from term (before 37 weeks of pregnancy) because the bulk of each fetal pole (head or breech) is similar.However, as term approaches, there is spontaneous turning to cephalic position as the more bulky breech tends to occupy a more spacious fundus or upper part of the uterus. At term the percentage of breech presentation is 3-4%

Breech presentation at term is managed either by

a.Elective Caesarean section or

b. by External cephalic version (turning the baby through 180 degrees from breech to cephalic presentation.) and deliver by spontaneous vertex (vaginal delivery)

c. by Assisted Vaginal Breech delivery.

However, many Obstetricians prefer the first option which is CS probably because of litigations and that has in part increased the CS rate.

Therefore, one way of reducing CS rate and by inference maternal mortality is by reducing the incidence of breech presentation at term through External Cephalic Version(ECV)

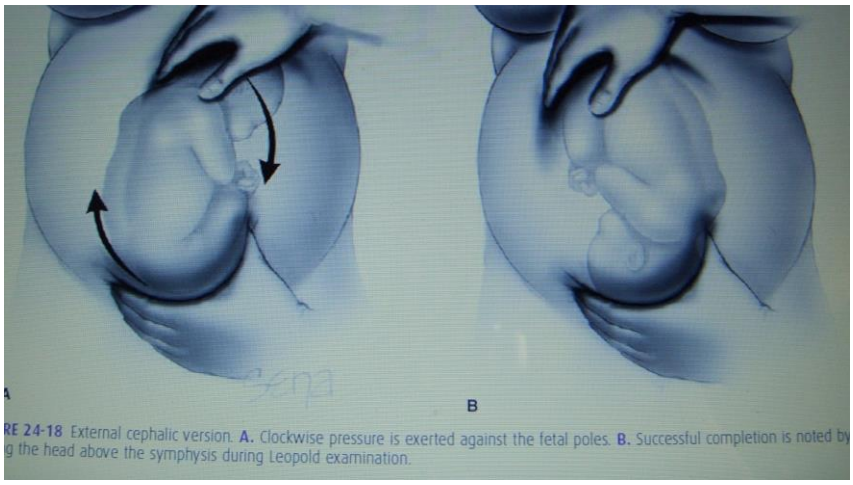
External cephalic version is a technique that may reduce the incidence of non-cephalic presentation at term (Hofmeyr and Kulier 2004).

The impact of ECV on CS is well documented by investigators who have shown a reduction in CS(Brock et al 1984, Gifford et al 1995)

Brocks V, Philipsen T,Secher N.J and Westergaard L.Gm(1984). A randomized trial of external cephalic version with tocolysis in late pregnancy. British Journal of Obstetrics and Gynaecology,91:653-656

PICTURES OF BREECH AND EXTERNAL CEPHALIC VERSION

EXTERNAL CEPHALIC VERSION



RE 24-18 External cephalic version. **A.** Clockwise pressure is exerted against the fetal poles. **B.** Successful completion is noted by g the head above the symphysis during Leopold examination.

Having said this, a blanket policy of External Cephalic Version on all patients with breech presentation at term will theoretically reduce drastically the number of patients with breech presentation in labour.The consequence is that trainee obstetrician will not have the privilege of acquiring the Skill of Assisted Vaginal Breech Delivery(Although skills acquisition laboratory may be available but it cannot replace hands-on)

It is with this in mind that myself and other colleagues ,being the first ever ,coined the phrase **selective external cephalic version**. It is a way of ensuring that we continue to deliver breech babies at term vaginally without necessarily jeopardizing outcome as we have carefully selected those patients that can have a safe vaginal breech delivery and turning ONLY those who would otherwise have to be delivered by CS.

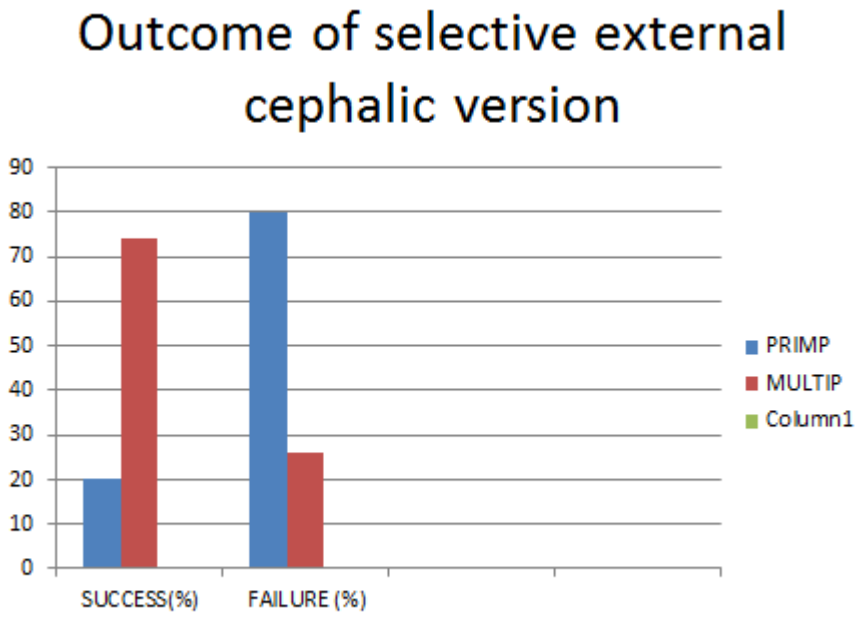
Subsequently, those that were successfully turned could deliver safely by the push and pull method. During the three years study period, there were 420 patients with breech presentation at term out of whom (8.9%) were selected for external cephalic version.

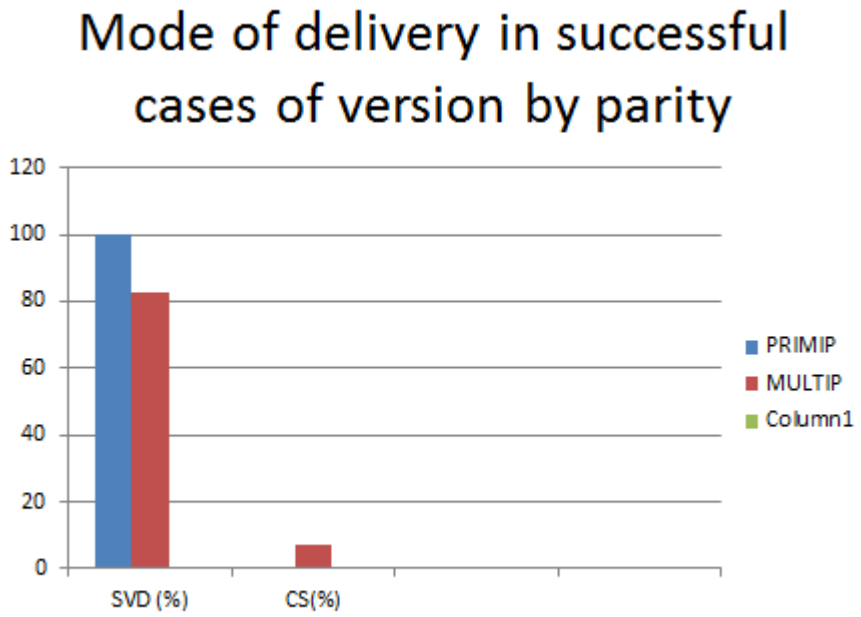
We were able to achieve Cephalic vaginal delivery in 86% of patients who had successful external cephalic version and 55% of all those who had version.Thus in addition to reducing the

number of CS on account of breech presentation, the selective external cephalic version could be of value to practicing obstetricians by allowing continued experience in vaginal breech delivery

What was significant in our study was that it was selective external version rather than the policy of external version for all cases of breech presentation at term.

A.A.Sobande,ZMS Zaki, HM Albar. Experience with selective external cephalic version at term in Saudi Arabia: a three year review. Journal of Obstetrics and Gynaecology (1999) Vol 18 No 5,439-441


Outcome of selective external cephalic version
90
80
70
60
50
40
30
20
10
0
SUCCESS(%)
FAILURE (%)
PRIMP
MULTIP
Column1

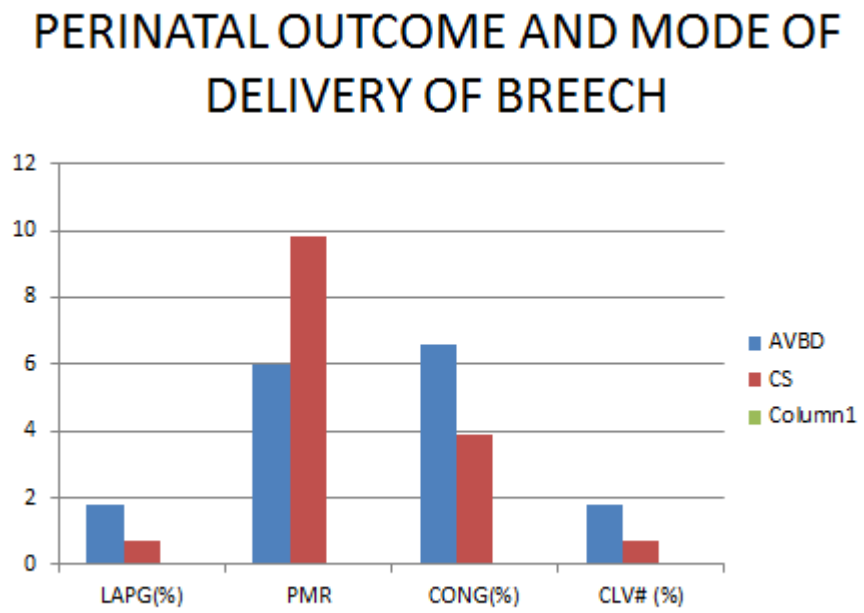


Sobande et al (2003) showed there was a significant increase in trend in the CS rate in breech deliveries over a 7 year period ,with non significant modest improvement in perinatal mortality which was not accompanied by a concomitant decrease in birth trauma .Also we noted that the outcome for the baby by way of mortality,birth asphyxia and fractured clavicle was not different whether baby was delivered by CS or assisted vaginal breech delivery(Sobande 2003).This was also corroborated by other authors(Roberts et al 1999)

A.A.Sobande, E.I Archibong, I Abdelmoneim and H.M Albar . Changing patterns in the management and outcome of breech presentation over a 7-year period. Review from a referral hospital in Saudi Arabia. Journal of Obstetrics and Gynaecology.2003;34-37

.A.A.Sobande.Pregnancy outcome in singleton term breeches from a referral hospital in Saudi Arabia.West African Journal of Medicine Vol 22,No 1,Jan-Mar 2003

Year	1994	1995	1996	1997	1998	1999	2000
(No of breech deliveries	(101)	(92)	(71)	(137)	(134)	(93)	(127)
CS, n (%)	50(49.5)	40(43.4)	51(71.8)	96(70.0)	104(77.6)	68(73.1)	94(74.0)
Birth trauma,n (%)	1(1.0)	6(6.5)	2(2.8)	0(0.0)	5(3.7)	3(3.2)	10(7.8)
Perinatal mortality rate (/1000	10(7.8) (79)	(97.8)	(56.3)	(72.9)	(52.2)	(53.7)	(31.4)



The Multicenter multinational trial "Term Breech Trial Collaborative Group" and its recommendation that Elective CS is the preferred mode of Delivery of Breeches at Term took the Obstetric world by storm.

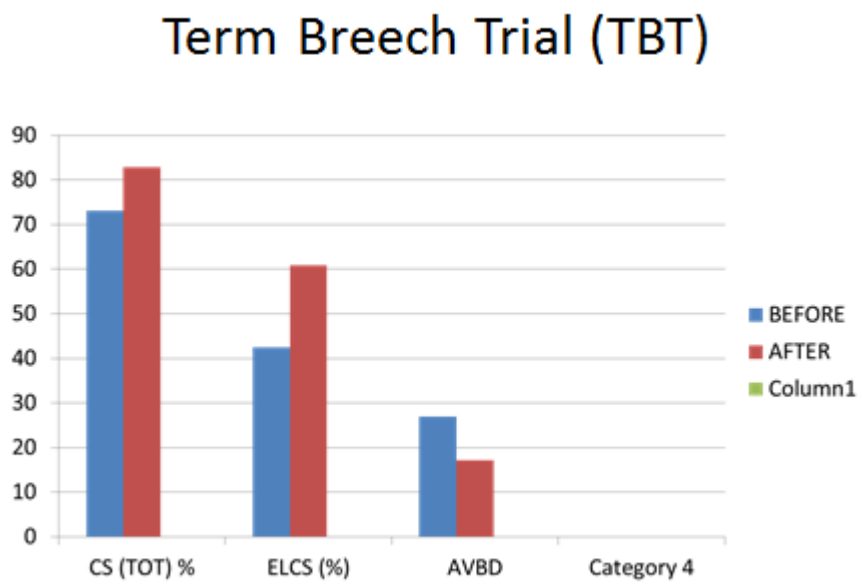
Hannah ME, Hannah WJ, Hewson S, Hordnett E, Saigal S,Willan A.For the Term Breech Trial Collaborative Group. Planned caesarean section versus planned vaginal birth for breech presentation at term: a randomized multicentre trial.Lancet 200;356:1375-1383

This recommendation gained unprecedented popularity and momentum all over the world even in the developing countries including Nigeria and Saudi Arabia, our center inclusive.(I guess its mainly because of its medico-legal implications).

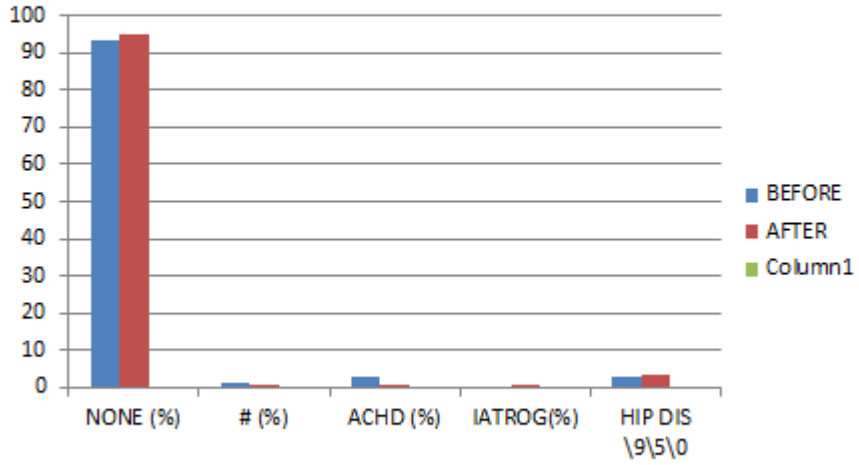
The Term Breech Trial has been criticized on methodological grounds thereby making its generalisability and applicability to appropriately staffed and resourced hospitals like ours uncertain.

We therefore decided to evaluate the Recommendation of the TBT in our environment by comparing the maternal and fetal short-term outcomes in patients delivered by breech presentation at term before and after the recommendation of the TBT.

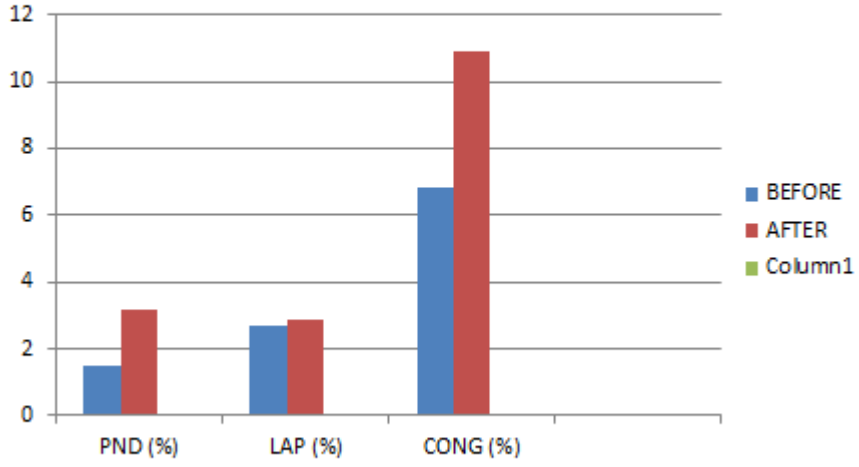
We showed that even though there was a dramatic increase in rate of CS with term breeches there was no corresponding improvement in the neonatal outcome in the years following the TBT recommendation in our hospital(Sobande et al 2007).By this result,we again advocated a policy of selective external cephalic version and assisted vaginal breech delivery in carefully selected patients .



TBT.(Problems during deliery)



TBT (Perinatal outcome)



No sooner did professional bodies like, The American College of Obstetricians and Gynecologists and their Canadian counterpart reviewed the current evidence on long term complications of babies delivered by assisted vaginal breech deliveries and suggested that Assisted Vaginal breech delivery could be an acceptable option in institutions and commented on the dearth of expertise .

The PREMODA study group in Belgium/France also concluded in their large series that In places where planned vaginal breech delivery is a common practice and when strict criteria are met before and during labor, planned vaginal delivery of singleton fetuses in breech presentation at term remains a safe option that can be offered to women.

OUR EVIDENCE TOGETHER WITH OTHERS suggested that the TBT decision was made rather hastily and therefore Assisted Vaginal breech delivery with or without Selective External Cephalic Version should continue to be a safe option for delivery of term breeches especially in our environment. .

.Adekunle.Sobande,Farheen Yousouf,Mamdoh Eskandar, Mona A.Almushai. Breech delivery before and after the term breech trial recommendaion.Saudi Med J.2007;Vol 28 (8):1213-1217

ACOG Committee Opinion No. 340. Mode of term singleton breech delivery. Obstet Gynecol. 2006 Jul;108(1):235-7.

Vaginal delivery of breech presentation. J Obstet Gynaecol Can. 2009 Jun;31(6):557-66, 567-78

Goffinet F1, Carayol M, Foidart JM, Alexander S, Uzan S, Subtil D, Bréart G; PREMODA Study Group. Is planned vaginal delivery for breech presentation at term still an option? Results of an observational prospective survey in France and Belgium. Am J Obstet Gynecol. 2006 Apr;194(4):1002-11

Type of delivery and complications in the two groups

Characteristic	Group 1	Group 2	Significance
	N=394(%)	n=402(%)	
Mode of delivery			
Caesarean section	288(73.1)	333(82.8)	p=0.000*
Elective CS	167(42.4)	245(60.9)	p=0.000*
AVBD	106(26.9)	69(17.2)	p=0.000*
Problems during delivery p>0.05(NS)			
Fractures	5	1	
Difficulty with ACH	11	4	
Iatrogenic	0	1	
Dislocation of the hip	12	13	
Unbooked patients	270(68.5)	246 (61.1)	

- = Significant , (NS) = Not significant

Perinatal outcome

Characteristic	Group 1	Group 2	Significance
	N=394(%)	n=402(%)	
Perinatal death	6(1.5)	13(3.2)	p=0.11
Low Apgar score, <7 at 5 mins	11(2.7)	12(2.9)	p=0.58
Congenital malformation	27 (6.8)	44(10.9)	p=0.042

Mr Vice-Chancellor sir, I have demonstrated in my research studies on management of breech presentation at term that there is no improvement in maternal and perinatal outcomes, on the short term when **caesarean section** is performed for breech presentation.

I have also shown that we could reduce the caesarean section performed for breech presentation at term by the use of Selective External Cephalic version.

We could ensure that the natural process of fertilization ends up safely by the push and pull route .

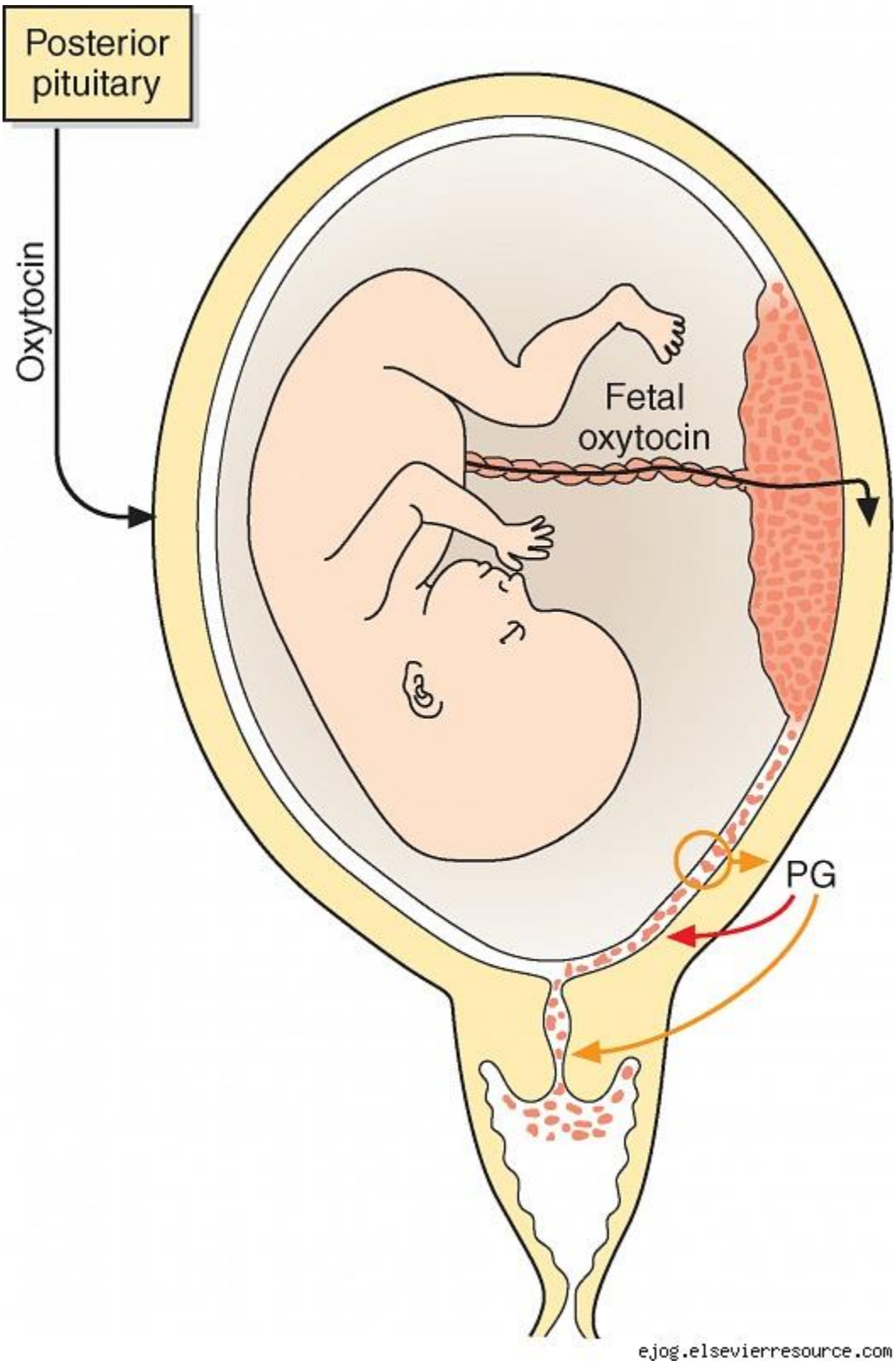
Mr Vice-Chancellor sir, we are bringing back to our institution,country the lost Art of Assisted Vaginal breech Delivery through training and retraining as well as more compelling evidence.

Induction of labour with prostaglandin E2 (prostin) vaginal tablets in high risk patients(grandmultiparae)

Another area of focus of my research work is Induction of Labour.This is the artificial initiation of uterine contractions prior to spontaneous onset, leading to progressive dilatation and effacement of the cervix and ultimately delivery of the baby.

It is carried out when the continuation of pregnancy may be adjudged hazardous to the mother or fetus or both.The most common indication for induction of labour is prolonged pregnancy. This is pregnancy that goes beyond the expected date of delivery (EDD) .

The alternative to induction of labour is delivery by Caesarean section


Posterior pituitary
Oxytocin
Fetal oxytocin
PG
ejog.elsevierresource.com

However,there is the subset of pregnant women called grandmultiparae/gravidae and greatgrandmultiparae/gravidae meaning that they have carried their pregnancies beyond 24 weeks more than 5 and 9 times respectively.They are referred to as High Risk patients

The Obstetric literature is full of reports on the use of prostaglandin for induction of labour mostly in women with low parity (<3). In fact, the manufacturers of prostaglandin prohibit its use in grandmultiparae without sound scientific evidence , possibly due to the fact that the grandmultiparae are uncommon in the developed world where most of the trials were conducted. However in most developing countries, a significant proportion of the obstetric population at term are grandmultiparae.We therefore needed to confirm or refute the notion that prostaglandin is dangerous in grandmultiparae.

We compared the outcome of labour in grandmultiparae in spontaneous labour with those who were induced with prostaglandin E2 vaginal tablets in order to evaluate the added risks of induction of labour in the grandmultiparae.

64 grandmultiparous patients who were induced with PGE2 vaginal tablets for various reasons(cases) were compared with 90 grandmultiparous controls who had spontaneous labour with respect to complications and fetal outcome.

The CS rate as well as other labour parameters were similar in both groups of patients

Table 1

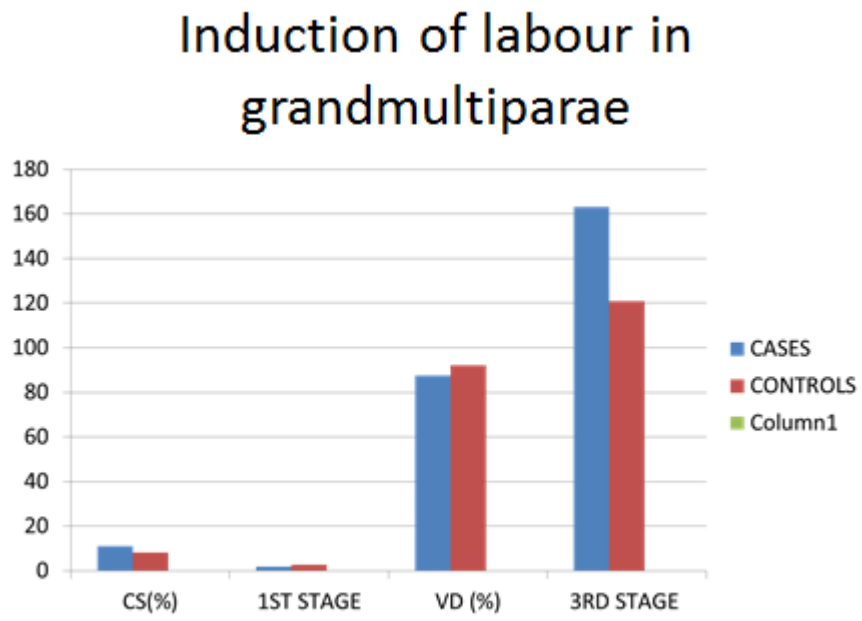
Characteristic	Cases N=64	Controls N=90	P value
Age(yrs) Mean (SD)	33.8(4.9)	32.9(4.6)	P=0.2 (NS)
Parity, Mean (SD)	7.6(2.1)	7.3(1.8)	p=0.30 (NS)

Gestation at delivery(wks)	40.6	39.3	p=0.0(NS)
Birth weight(gms)Mean(SD)	3383(590.4)	3060(486.2)	p=0.13 (NS)

Characteristics of labour and delivery

Characteristic	Cases N=64	Controls N=90	P value
Length of 1st stage (hrs) Mean (SD)	3.1(1.8)	2.7(2.7)	P=0.29 (NS)
Need for syntocinon,n (%)	17(26)	13(15)	p>0.05 (NS)
Length of 2nd stage(mins) Mean (SD)	8.3(9.8)	5.9(8.0)	p=0.13 (NS)
Blood loss in 3rd stage(mls) Mean(SD)	223.6(163.6)	186.4(121.1)	p=0.29 (NS)
Normal vaginal delivery n (%)	56(87.5)	83(92)	p=0.33 (NS)
Vacuum delivery n (%)	1(1.5)	0(0)	p>0.05 (NS)
Caesarean section n (%)	7(11)	7(8)	p=0.50 (NS)

NS- Not significant



We concluded from the findings of this research that induction of labour can safely be carried out in the grandmultiparae as the risks are not more than the grandmultiparous patients in spontaneous labour.(Sobande et al 2001),even in the great-grand multiparae (Albar H, Sobande et al 2000)

.**Adekunle A.Sobande, Hassan M Albar, Eric I Archibong.A comparison of spontaneous labour wih induced vaginal tablets prostaglandin E2 in grand muliparae.Saudi Med J. 2001;Vol 22 (8)698-701.**

Mr Vice-Chancellor sir,most of these grandmultiparous and great grandmultiparous patients that had induction of labour in this research would otherwise have undergone CS .

Therefore we could plausibly imply that by reducing CS in these group of patients, we might be reducing maternal mortality.

Sobande et al (2000) also compared the outcome of labour in grandmultiparae(5-9) and greatgrandmultiparae (>9) and concluded that there was no difference in the outcome of labour between the two groups of patients.

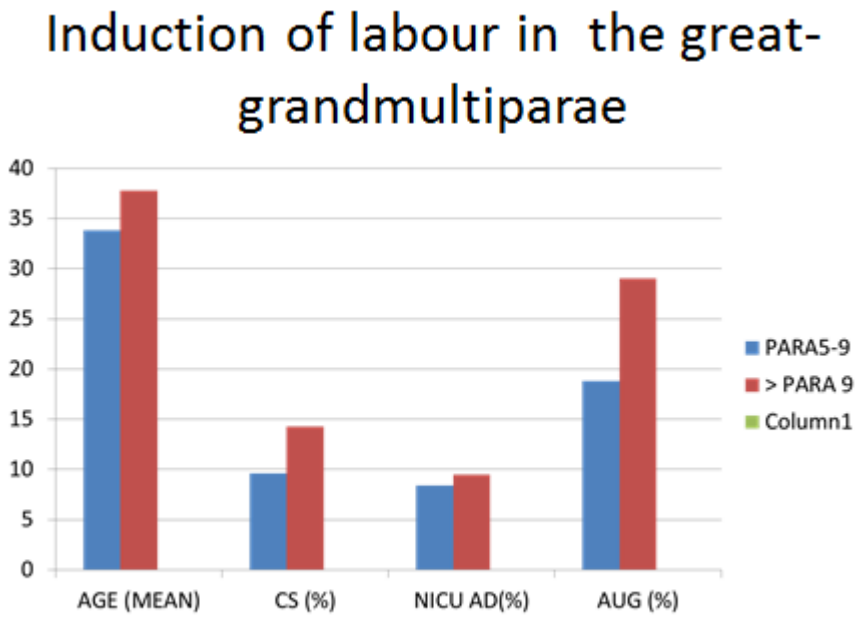
H.Albar, A.Sobande,O Hussein, R Thiga and M Mushait . The experience with prostaglandin E2 vaginal tablets for induction of labour in grand and great grand multiparae. A two year review in Saudi Arabia.Journal of Obstetrics and Gynaecology (2000) Vol 20,No 2:132-135

Maternal and fetal characteristics

Characteristic	Para 5-9 N=271	Para>9 n=63
Age(years)Mean (SD)	33.80(4.39)	37.87(4.51)
Gestation at delivery(wks)	40.19(1.76)	39.84(1.49)
Haemoglobin(g/dl)	12.48(1.42)	12.23(1.57)
NICU admission.n(%)	23(8.4)	6(9.5)
Birth weight(gms)	3261	3359

Obstetric interference

Procedure	Para 5-9	Para>9
Caesarean section	26(9.6%)	9(14.3%)
Syntocinon augmentation	51(18.8%)	8(29.0%)
Failed induction	4(1.5%)	2(1.8%)


Induction of labour in the great-grandmultiparae
40
35
30
25
20
15
10
5
0
AGE (MEAN)
CS (%)
NICU AD(%)
AUG (%)
PARA5-9
> PARA 9
Column1

Induction of labour with prostaglandin E2 vaginal tablets in parous and grandmultiparous patients with one lower segment previous caesarean section(LSCS)

We also prospectively evaluated the outcome of induction of labour with prostaglandin E2 vaginal tablets between the lower parity (1-5) and grandmultiparous (5-9) patients with history of one previous Lower segment caesarean section using our protocol of stepwise increase in prostaglandin dose in 5 year period.

Even though some authors reported no cases of uterine rupture in their series where induction of labour was carried out in grandmultiparous women with previous CS(Yamani et al 1999) there were two case of rupture of the uterus –one in each group. At the same time ,we demonstrated that the complications were not higher in the grandmultiparous patients with history of previous CS than in the lower parity and that the overall CS rate was about 45%

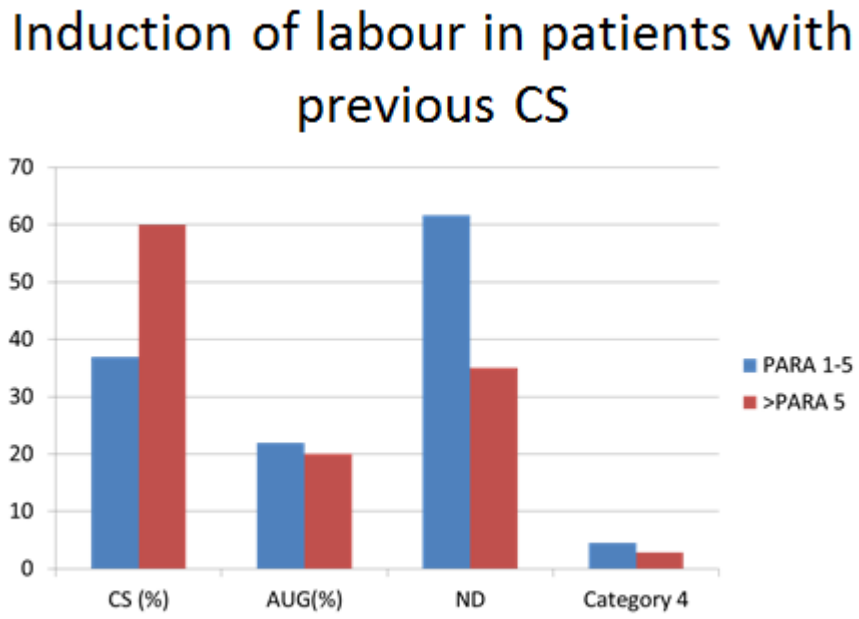
Yaman TY, Rouzi AA. Induction of labor with vaginal prostaglandin E2 in grand multiparous women with one previous cesarean section.International Journal of Gynecology and Obstetrics.1999;65:251-253.

A.A.Sobande, H .Albar.Induction of labour with prostaglandin E2 vaginal tablets in parous and grandmultiparous with previous cesarean section. International Journal of Gynecology and Obstetrics 78 (2002)19-24.

Mode of delivery and need for syntocinon augmentation

Characteristic	Parity 1-5 N=73	Parity >5 n=40	Significance
Mode of delivery (n)%			p=0.030
Normal delivery	45(61.6)	14(35)	
Vacuum extraction	1(1.5)	2(5.0)	
Caesarean section	27(36.9)	24(60)	
Need for augmentation(n)%	16(21.9)	8(20)	p=0.812

We advocated that Induction of labour could safely be carried out in patients with a history of one lower segment caesarean section in centers (like ours-where the research was carried out) where facilities are available for monitoring of the fetus and mother as well as adequate number of medical and allied personnel to deal with complications immediately if need arises. However, we posited that it should be avoided in patients with previous caesarean section in the presence of very unfavourable cervix.(Low Bishop score)

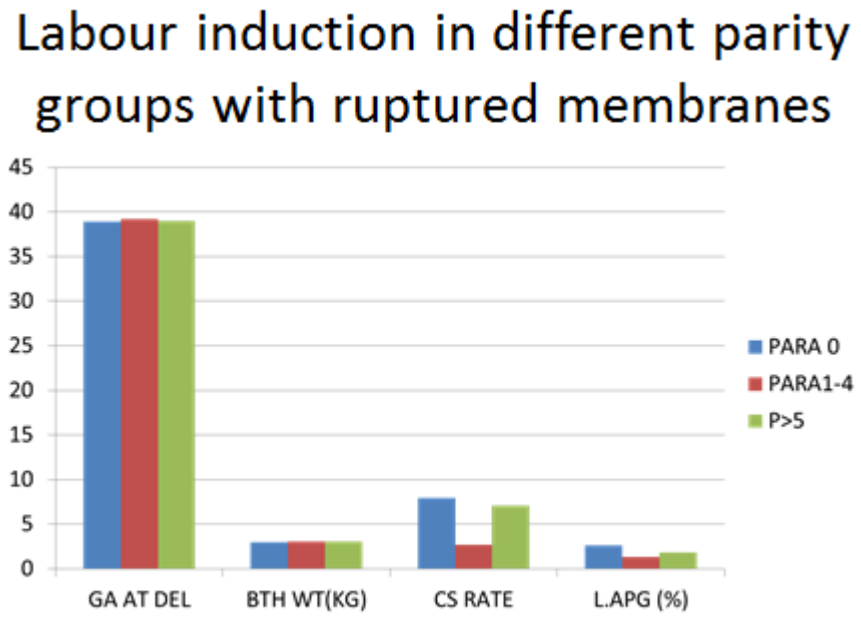


No doubt, Mr Vice-Chancellor sir, this kind of research work here in our environment may be termed heroic, given the limited resources for prompt and effective feto-maternal monitoring during labour, as well as manpower to drive the process.

Nonetheless, we showed that women with previous CS may be safely induced without undue risk to mother and baby.

We were also able to demonstrate that it may be safe to induce labour in patients with premature rupture of membranes with prostaglandin tablets even in the grandmultiparae as there were no differences in the CS rate , NICU admission , other complications when compared to the lower parity groups.(Sobande et al 2003).

A.A.Sobande and H.M.Albar et al.Induction of Labour with prostaglandin E2 in different parity groups after premature rupture of membranes. Eastern Meditteranean Health Journal,Vol 9,No 3 :309-315



MEDICAL DISORDERS IN PREGNANCY

Diabetes mellitus and pregnancy

The rise in the prevalence diabetes in the general population (about 25% of Saudi population are diabetic) possibly resulting from life style changes has led to the increase in the number of pregnant women with diabetes.

The types of diabetes that are encountered during pregnancy

1. Type 1 diabetes (Juvenile or early onset diabetes-insulin dependent)
2. Type 2 diabetes (Adult unset diabetes- non-insulin dependent)
3. Gestational diabetes-(Diabetes cause by pregnancy and resolves after delivery)

The complications that are associated with diabetic pregnancy include among others

1. Miscarriage(Congenital abnormalities)
2. Vulvo-vaginitis
3. Pre-eclampsia
4. Polyhydramnios
5. Perinatal death(stillbirth and early death after delivery)
6. Increased risk of Caesarean section

A case control prospective study was carried out over a 2 year period to determine the outcome of pregnancy in 83 diabetic patients.They were matched for age and parity with control none diabetic patients.

Table 1. Distribution of studied cases according to type of diabetes and treatment

Treatment	Type of diabetes		Total
	Established	Gestational	
Insulin treatment	26 (100%)	45(79%)	71(86%)
Diet control	0 (0%)	12(21%)	12(14%)

Mode of delivery and birth weight in cases and controls

Variable	Cases	Controls	P value/OR
Birth weight(gms)			
Mean(SD)	3381(618.0)	3074(510.4)	0.001*
Mode of delivery			
Normal vaginal delivery	51(61%)	73(88%)	
Caesarean section	24(30%)	6(7%)	OR=5.2(1.9-16.4)
Others	7(9%)	4(5%)	

We showed that the CS rate in diabetics was about 4 times that of the controls which would suggest an increase in the cost of childbirth for the diabetic patient.This together with cost of medication and hospital admission goes to show the financial resources involved in the management of diabetic pregnant patient. As this condition may be preventable, we advocated that emphasis should be placed on health education. (Sobande et al 2000)

Adekunle A.Sobande, Hassan Al-Bar, Eric .I.Archibong .Diabetes and Perinatal loss. A continuing problem.Saudi Medical Journal 2000;Vol 21(2) :161-163

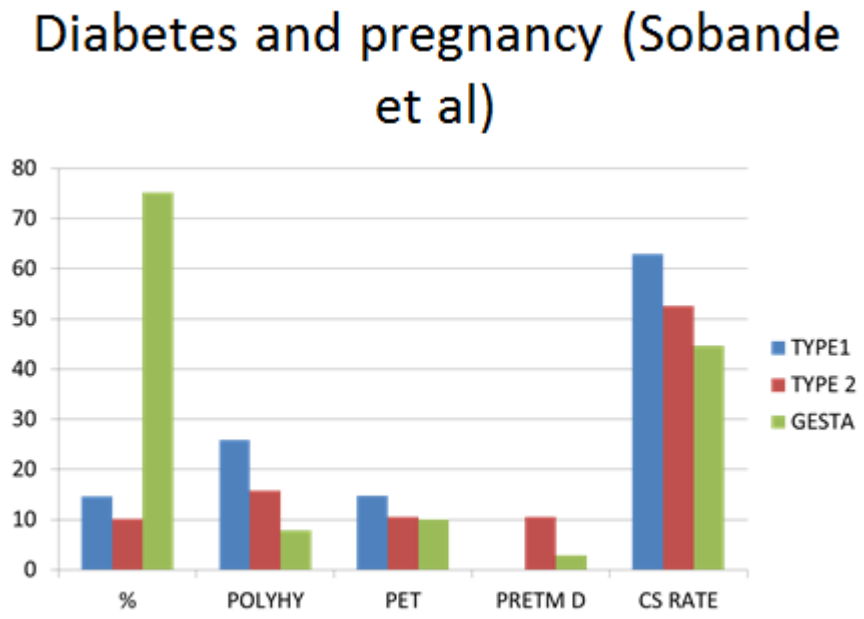
We also prospectively studied 185 diabetic patients comprising 27 (14.6%) type 1, 19 (10.2%) Type 2 and 139(75.2%) gestational diabetics were followed up during the pregnancy and delivery.It was revealed that Type 1 diabetics had more complications than other types during pregnancy while the CS rate was also considerably higher and therefore advocated preconceptional counseling for diabetic patients especially this group (Type 1) of patients with emphasis on family planning.

Sobande et al.Antenatal complications and pregnancy outcome in diabetic patients . West African J Med 2005 Vol 24,No 1:13-17.

Antenatal complications and delivery characteristics

Characteristic	**Group 1**	**Group 2**	**Group 3**	**Significance**
Antenatal complications.n(%)				
Polyhydramnios	7(25.9)	3(15.7)	11(7.9)	NS
Preeclampsia	4(14.8)	2(10.5)	14(10)	NS
Preterm delivery	0(0)	2(10.5)	4(2.8)	
Caesarean section	17(62.9)	10(52.6)	62(44.6)	

NS



Hypertensive disorders in pregnancy(pre-eclampsia/eclampsia)

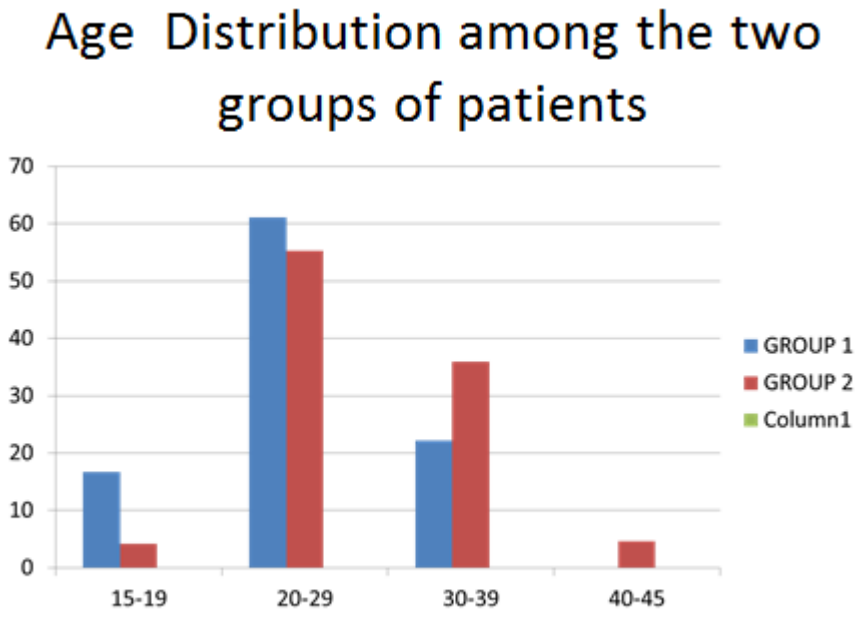
Hypertensive diseases of pregnancy which complicates about 5-10% of pregnancies remains a major cause of mortality and morbidity worldwide. However,its incidence has ethnic and geographic variation and it is a common cause of maternal mortality, being responsible for about 12% of maternal deaths

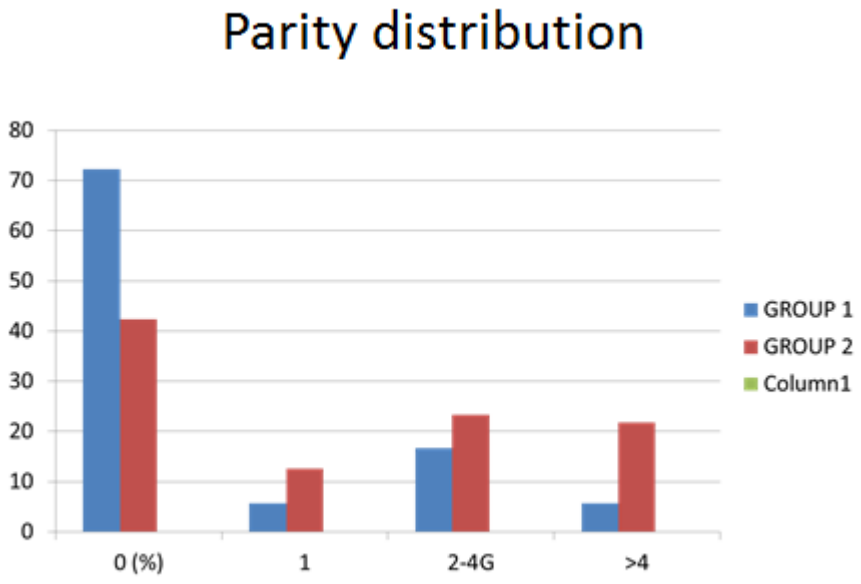
We conducted an institutional study to assess the contribution of hypertensive diseases in pregnancy to maternal mortality at our hospital during a 10 year period and discovered that while there were no maternal deaths from Eclampsia/Severe Preeclampsia ,the majority of cases of Eclampsia occurred Antepartum. Our findings also suggested that the nulliparous and age-group 20-29 years pregnant patients are high risk groups for Eclampsia and severe Pre-

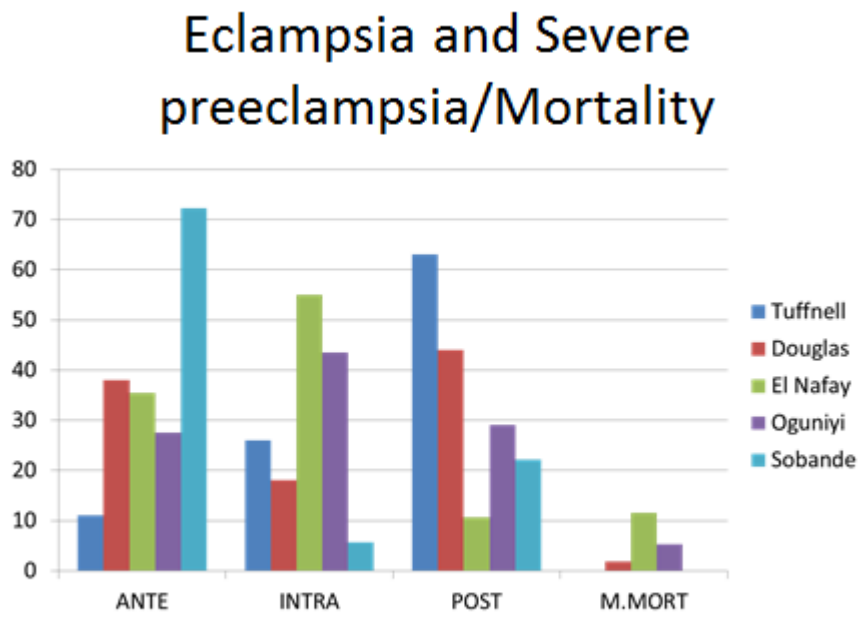
eclampsia.This compared with other reports from the same country.However, Ogunniyi et al (1999) reported a mortality rate of 5.3% from Eclampsia.

Comparision of Eclamptic fits/Mortality Characteristics in various studies

Author	**Ante-partum**	**Intra-partum**	**Post-partum**	**Mortality from Eclampsia**
	N (%)	n(%)	n(%)	n(%)
Tuffnell (2005)	55(11)	13(26)	32(	0(0.0)
Douglas (1994)	145(38)	69(18)	169(44)	7(1.8)
El Nafay (2004)	107(35.4)	166(55)	32(10.6)	35(11.6)
Ogunniyi(1999)	36(27.5)	57(43.5)	38(29)	7(5.3)
Aali (2004)	24(72.7)	1(3.0)	10(24.3)	6(18.2)
Sobande et al	**13(72.2)**	**1(5.6)**	**4(22.2)**	**0(0.0)**
Chuni et al 2004	70(57.3)	17(13.9)	35(28.8)	23(18.8)


Age Distribution among the two groups of patients
70
60
50
40
30
20
10
0
15-19
20-29
30-39
40-45
GROUP 1
GROUP 2
Column1


Parity distribution
80
70
60
50
40
30
20
10
0
0 (%)
1
2-4G
>4
GROUP 1
GROUP 2
Column1



A.A Sobande, M Eskandar, A.Bahar, A.Abusham.(2007) Severe preeclampsia and eclampsia in Abha, the southwest region of Saudi Arabia. Journal of Obstetrics and Gynaecology, 27:2,150-154.

Al-Sulaiman SA, Al-Sibai MH, Al-Jama FE, El-Yahi AR, Rahman J, Rahman MS.2004. A twenty –year survey at the King Faisal University Hospital, Al-Khobar, Eastern Saudi Arabia. Journal of Obstetrics and Gynaecology 24:259-263

Al Meshari A, Chattopadhyay SK, Younes B, Anokute C. 1995. Epidemiology of maternal mortality in Saudi Arabia. Annals of Saudi Medicine 15:317-322.

Respiratory diseases in pregnancy

ASTHMA IN PREGNANCY

This is one of the non-obstetric conditions causing hypoxia (Low oxygen in the blood) during pregnancy

Effects of asthma on pregnancy

For most women, there are no adverse effects of their asthma on pregnancy outcome, but poorly controlled asthma with chronic or intermittent maternal hypoxaemia (low oxygen in blood)may adversely affect the fetus.Thus improved pregnancy outcome can be expected in patients whose asthma is well controlled. However, a variable that might affect pregnancy outcome in asthmatic patients is altitude.The southwestern highlands of Saudi Arabia have an altitude of 280-3150m, a barometric pressure of 550mmHg,and atmospheric oxygen of 110 mm Hg relative to sea level.

The study was conducted to assess the adverse effects of asthma on pregnancy in a high altitude environment

Pregnancy outcomes in asthmatic patients from high altitudes

We carried out a prospective study on 88 asthmatic patients with singleton pregnancy over a 4 year period to determine the effects of Asthma on Pregnancy Outcome. The patients were matched for age and parity with control non asthmatic patients.

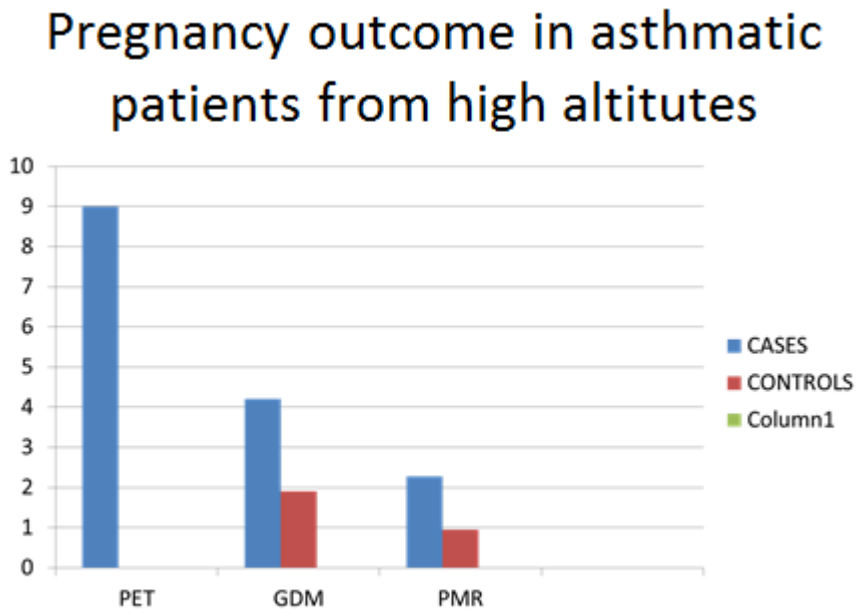
Table 1.Maternal and fetal characteristics of asthmatic pregnant women and controls

Variable	**Asthmatics**	**Non-asthmatics**	**Significance**
	N=88	n=106	
Complications.n(%)			
Pre-eclampsia	7(7.9)	0(0.0)	p<0.05*
Gestational diabetes	4(4.2)	2(1.9)	p<0.05*
Birth weight(Mean±SD)	2855.75±137.62	3051.38±519.99	p= 0.006*
Placental weight	570.00±137.62	609.0±125.81	p= 0.042*
No of abortions			
PMR	2.27	0.95	p<0.05*

- =significant PMR-Perinatal mortality rate.

We also showed that induction of labour, caesarean section rate , perinatal mortality, and congenital malformations were significantly higher in the asthmatic patients.We concluded that pregnancy in the asthmatic patient was associated with adverse maternal and fetal outcome especially in high altitudes and suggested that a multi-disciplinary approach to care and intensive fetal surveillance are needed for asthmatic pregnant women. Health care providers should also educate the public on problems associated with asthma in pregnancy, especially those women living in high altitudes.

A.A.Sobande,E.I.Archibong,S.E.Akinola.Pregnancy outcome in Asthmatic patients from high altitudes.International Journal of Gynecology and Obstetrics 77(2002) 117-121.

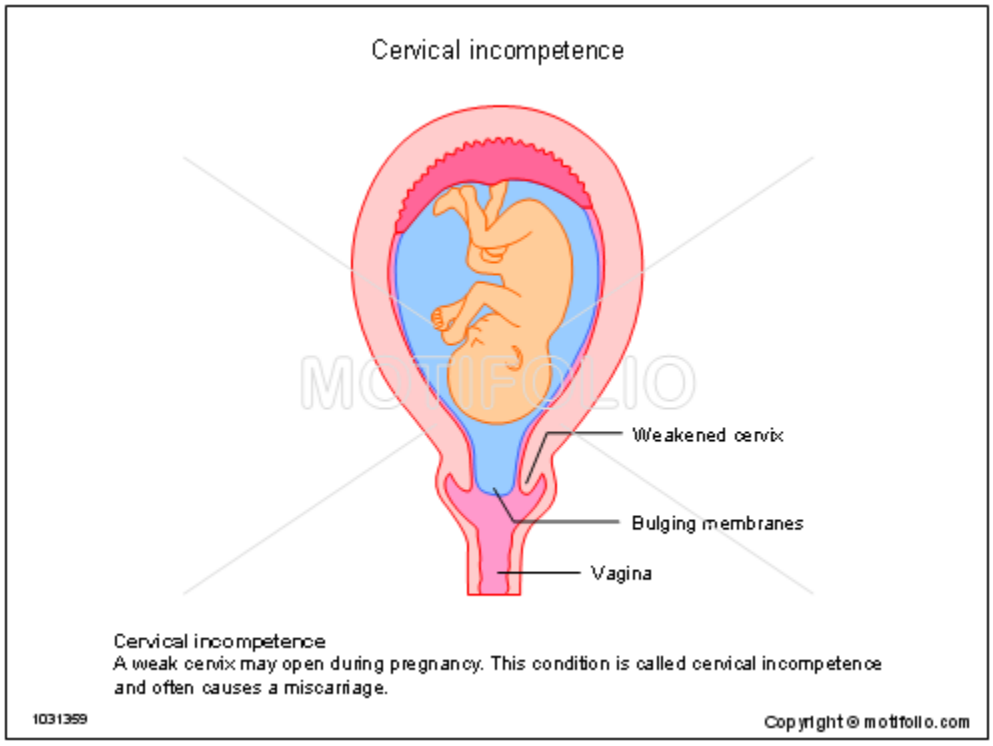


GENERAL OBSTETRICS

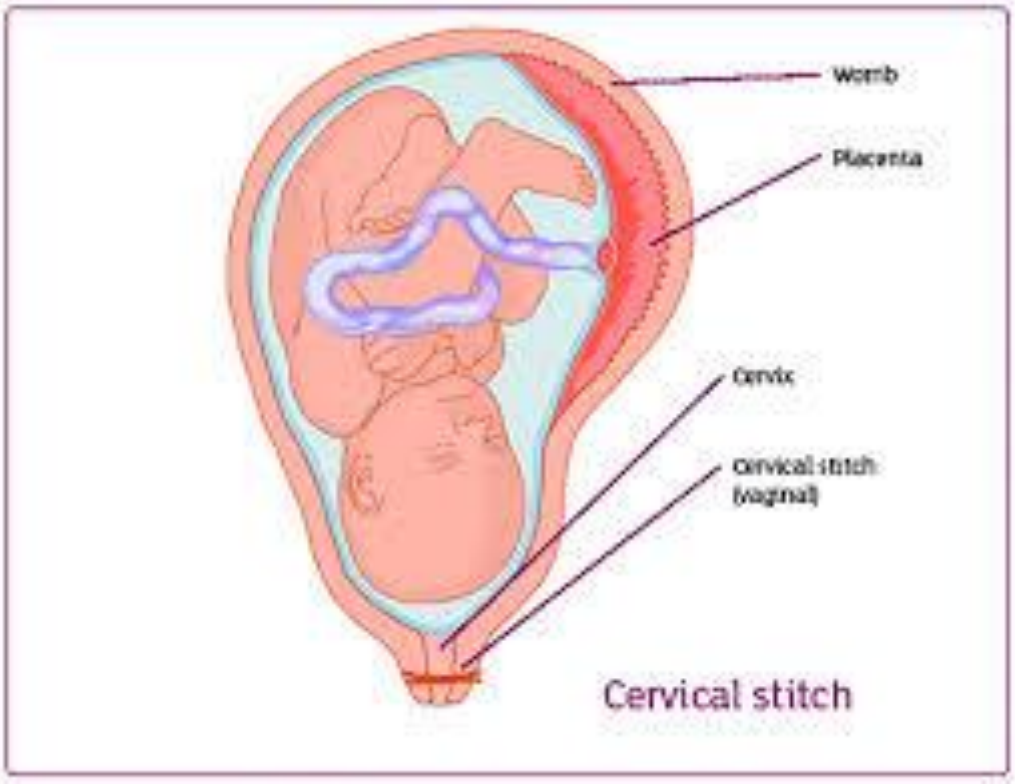
RECURRENT MIDTRIMESTER MISCARRIAGE/EARLY PRETERM DELIVERY

Recurrent second trimester miscarriage or early preterm delivery is a very distressing problem, and one of the causes is thought to be **cervical incompetence** (weakness of the cervix). Clinically, it is diagnosed retrospectively(after the event) when there is previous history of painless labour in the mid-trimester or early third trimester (between 4-6 months of pregnancy) with a viable fetus in the absence of obvious vaginal bleeding or uterine contraction while ultrasound diagnosis depends on the shortening of the cervical length and prolapse of the membranes in the cervical canal. Recently ,the detection of fetal fibronectin (Deshpande et al)in the vaginal fluid has been used to predict the likelihood of preterm delivery.

Deshpande SN, van Asselt AD, Tomini F, Armstrong N, Allen A, Noake C, Khan K, Severens JL, Kleijnen J, Westwood ME. Rapid fetal fibronectin testing to predict preterm birth in women with symptoms of premature labour: a systematic review and cost analysis. Health Technol Assess. 2013 Sep;17(40):1-138. doi: 10.3310/hta17400.



The management of patients with Cervical Incompetence is the prophylactic application of Cervical cerclage around 14 weeks of pregnancy.



Various techniques have been invented for this purpose but the most popular is the Mcdonalds technique which may also be applied electively or as emergency.

We conducted a clinic-epidemiological review of cervical cerclage over a 7 year period at our hospital to evaluate our management of patients with cervical incompetence .

Out of 196 patients who had the operation (Cervical cerclage), 154 had adequate records available and therefore comprised the study population. They were all presumed to have **Cervical Incompetence** based on Clinical History alone. Results showed that there were 139(90%) live births out of which 76.6% weighed more than 2000gms.The outcome was not influenced by the experience of the surgeon, type of cerclage or use of prophylactic antibiotics.

IT IS IMPORTANT TO NOTE THAT IN THIS STUDY,THE CASES HAD NO CONTROLS BECAUSE IT WOULD BE UNETHICAL NOT TO OFFER PREVENTIVE OR PROPHYLACTIC TREATMENT FOR PATIENTS WITH A PRESUMPTIVE DIAGNOSIS OF CERVICAL INCOMPETENCE

Nonetheless,this research finding goes to show that Cervical Cerclage may be useful in CAREFULLY SELECTED cases of cervical incompetence.

Table 1-Demographic and other characteristics of the patients who had Cervical Cerclage

Variable Mean (SD)	Minimum	Maximum	
Age (yrs) 26.7(5.58)	15.0	44.0	
Parity 2.0(1.88)	0	9	
Gravida (2.67)	1	16	5.4
Previous miscarriage (1.98)	0	12	2.4
Gestation suture inserted(wks) 14.8(2.64)	10.0	26.0	
Stitch removal delivery interval 8.1(9.8) (days)	1.0	60.0	
Birth weight (gms) 2660.2(773.4)	150.0	4050.0	

We also looked at the usefulness of Cervical Cerclage in prevention of preterm birth in women with Twin Pregnancy by comparing in a pragmatic fashion ,women with twin gestation who were allocated to receive either an elective cerclage or no cerclage.

Patients were excluded if they had clinical or ultrasound evidence of cervical incompetence.

176 consenting women with twin pregnancies were divided into two groups. Group 1 consisted of 76 women who had cervical cerclage in while group 2, there were 100 women without cervical cerclage.

We as well as other authors (Romans AS et al 2005) concluded that cervical cerclage is not useful in twin pregnancy where there is no evidence of cervical incompetence .We therefore cautioned against the use of Cervical Cerclage in Twin Pregnancy where there is no evidence of Incompetence of the Cervix

Comparision of effect of cerclage on incidence of preterm labour

	Cerclage .N (%)	**No cerclage. N(%)**	**Significance**
< 37 weeks gestation	**21 (38.2)**	**24 (31.6)**	**OR=1.2, 95% CI=0.61-2.39**
>37 weeks gestation	**55 (61.8)**	**76 (68.4)**	

M Eskandar,H.Shafiq, M.A.Almushait,A. Sobande,A..A.M.Bahar.Cervical cerclage for the prevention of preterm birth in women with twin pregnancy.International Journal of Gynecology and Obstetrics.(2007) 99 ,110-112.

Romans AS, Rebarber A, Pereira l,Sfakianaki AK, Mulholland J, Berghella V.The efficacy of sonographically indicated cerclage in multiple gestation.J Ultrasound Med Jun 2005;24(6):763-8.

CASE REPORT SUPPORTING THE VIEW THAT CERVICAL CERCLAGE MAY NOT BE USEFUL IN MULTIPLE PREGNANCY WHEN INCOMPENCE OF THE CERVIX HAS BEEN RULED OUT OR EXCLUDED.

Apart from the many case reports that we published in Reputable International Journals

Most significant is that we are the 2nd in the world to publish a case of Septuplets (7) with Total Infant survival (Asindi A.A.,Sobande A.A et al 1999, A.K Saleh, A.Sobande 1998).The Iowa septuplets came few months before ours. She was 43 years in her 7th pregnancy with.(Two boys and two girls). Her last delivery was by CS three years back. After waiting impatiently for a year, she consulted a health center where she was started on a cocktail of ovulation induction drugs or fertility drugs .Was diagnosed as having quintuplets (5) on ultrasound at 8 weeks gestation which was later found to be quadruplets (4)at subsequent scanning.

Because there was no previous history suggestive of cervical incompetence a Cervical Cerclage was not contemplated

The patient refused admission for bed rest. However she went into spontaneous labor at 33 weeks gestation (way beyond the gestation at which cervical incompetence is made)and was subsequently delivered by Emergency CS. It was at the CS that the diagnosis of Septuplets was made,the neonatologists having prepared to resuscitate 4 premature babies. The Outcome were four males and three females with birth weights ranging between (950 gms-1200gms).They were in hospital for 8 months and weight ranging between 4.85Kg-7.50Kg before discharge even though they were declared fit for discharge between the ages of 6-8 weeks.

PRESUMABLY, THIS PATIENT DID NOT HAVE CERVICAL INCOMPETENCE.


abc NEWS EXCLUSIVE
ABC/"GMA" SEPTUPLETS TURN 16
8:32
43°
FAMOUS FAMILY HITS THE WHEEL

STILLBIRTHS

The definition is a baby born dead (no life) after 24 weeks of pregnancy or born dead and weighed 500grams or more.

We prospectively studied 191 consecutive cases of stillbirths over a 5 year period at our hospital where post-mortem examination was the exception rather than a rule. No associated causal factors could be found in 41 % of the cases while major congenital malformations accounted for 14% of the cases

We showed that the primigravida (1st pregnancy) and parity >10 are at increased risk of stillbirth and at the same time, that the risk of still birth increases exponentially with age after 25years.

THE RISK OF STILLBIRTH IS LOWEST BETWEEN AGE 20-24YEARS AND 2ND -5TH PREGNANCIES

E.I.Archibong, A.A.Sobande. Antenatal intrauterine fetal death: a prospective study in a tertiary hospital in south-western Saudi Arabia.Journal of Obstetrics and Gynaecology (2003) Vol 23,No 2,170-173.

Distribution of cases by maternal age group (Jan 1997-Dec 2001)

Age(years)	No of live births	No of IUFD* (%)	Odds ratio
<20	2796	29(1.0)	1.0
21-25	5445	38(0.7)	0.67
26-30	5569	55(1.0)	0.96
31-35	2983	36(1.2)	1.16
36-40	1565	26(1.6)	1.60

>40	285	7(2.4)	2.37
Total	18,643	191 (1.1)	

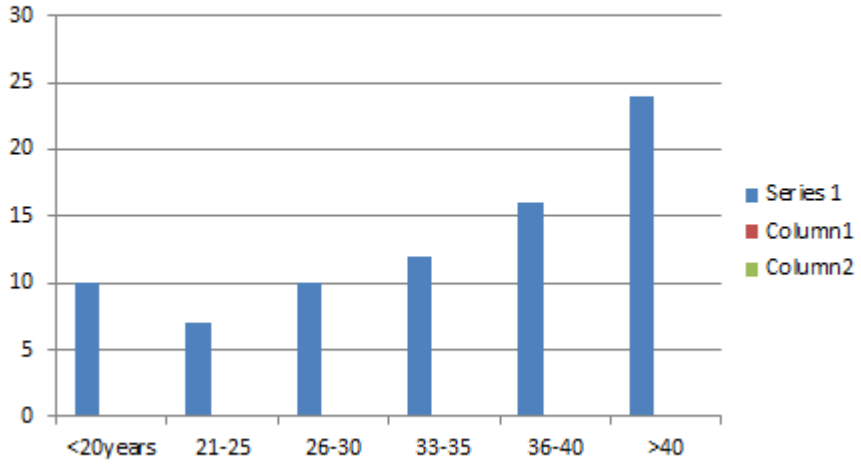
X^2 =10.455 p=0.0012(significant) * Intrauterine fetal death (IUFD)

Distribution of cases by gravidity

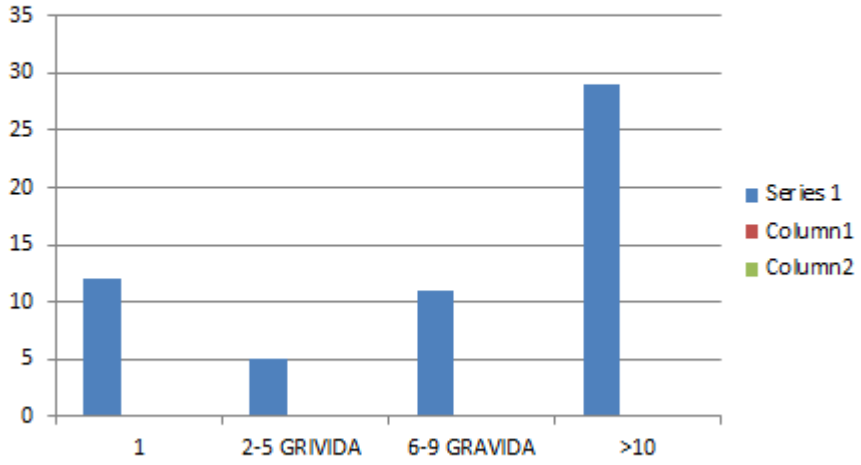
Gravidity ratio	No of live births	No of IUFD* (%)	Odds
1	3535	43(1.2)	1.00
2-5	8804	48(0.5)	0.45
6-9	4841	56(1.1)	0.95
>10	1463	44 (2.9)	2.47

X^2 =12.22 P=0.0007(significant) * Intrauterine fetal death (IUFD)

Stillbirths in relation to Age



Stillbirth in relation to gravidity



Associated risk factors

Rank factors/maternal conditions	No of cases (%)
1. Unexplained IUFD	79(41.4)
2. Major congenital malformations	27(14.1)
3. Hypertensive diseases in pregnancy	23(12)
4. Abruptio placenta	18(12)
5. Umbilical cord accidents	17(8.9)
6. Diabetes mellitus	15(7.9)
7. Pyrexia (infection)	3(1.6)
8. Previous IUFD	2(1.0)
9. Severe IUGR	2(1.0)
10. Rhesus isoimmunisation	2(1.0)
11. Others(asthma, PE, severe burns)	3(1.6)

We also evaluated the **Maternal and neonatal outcome of Twin pregnancies complicated by single intrauterine dead fetus** where we found the perinatal mortality of 11.4% that was similar to that of twins without intrauterine fetal demise in our facility (10.8%).Sobande et al 2004.Although there were no major maternal complications in our series in concordance with other authors(Prompeler),there were four cases reported in literature where maternal complications developed during the antenatal period.(Sonneveld et al 1992.)

Maternal and neonatal outcome of twin gestation complicated by a single intrauterine dead fetus

Characteristic	Mean	SD	n	(%)
Maternal age (years)	27.7	5.24	-	-
Parity	2.46	2.19	-	-
Gestation at diagnosis of IUFD (weeks)	29.65	5.70	-	-
Gestation at delivery (weeks)	34.26	4.53	-	-
Blood loss at delivery (mls)	404.2	264.6	-	-
Birth weight (grams)	1846.7	822.3	-	-
Placental weight (grams)	635.9	212.0	-	-
Maternal complications				
Preeclampsia			4	(11.4)
Gestational diabetes			4	(11.4)
Post partum haemorrhage			5	(14.3)
None			22	(62.8)
Caesarean section			11	(31.4)
Neonatal death			4	(11.4)
Chorionicity				
Dichorionic			16	(45.7)
Neonatal complications				
DIC/Anaemia			3	(8.5)
Cerebral infarction			1	(2.8)
Intestinal necrosis			1	(2.8)
Microcephaly			1	(2.8)

. Mesbah M.Abdal-Khalig, Adekunle A.Sobande. Maternal and neonatal outcome of twin pregnancies complicated by a single intrauterine dead fetus. Saudi Medical Journal 2004 ;Vol 25 (11)1770-1

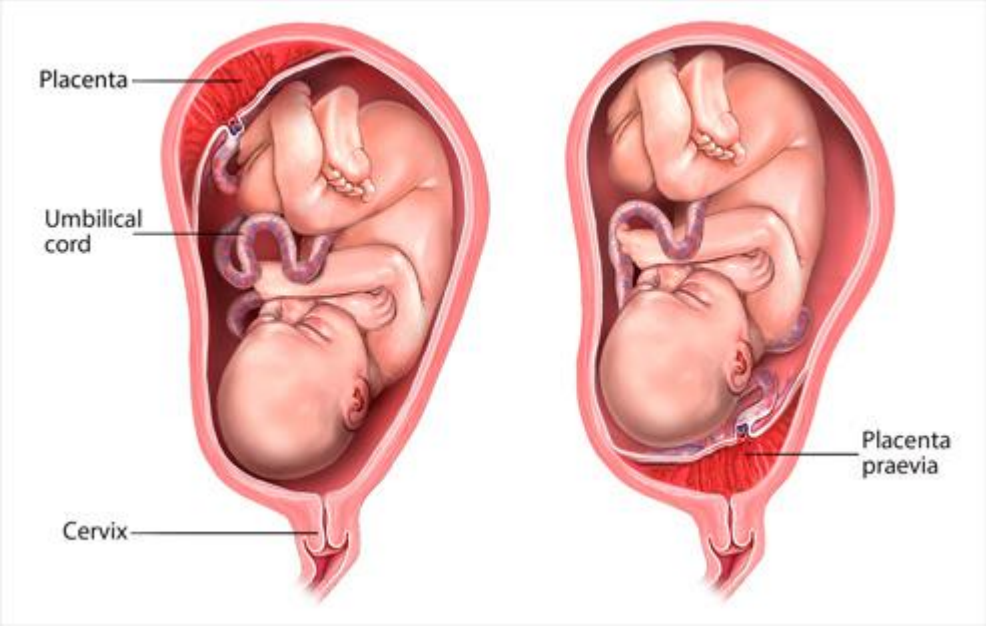
Prompeler HJ, Madjar H, Klosa W, DU Bois A, Zahradnik HP, Schillinger H et al. Twin pregnancies with single fetal death.Acta Obstet Gynecol Scand 1994;73:205-208.

ANTEPARTUM HAEMORRHAGE

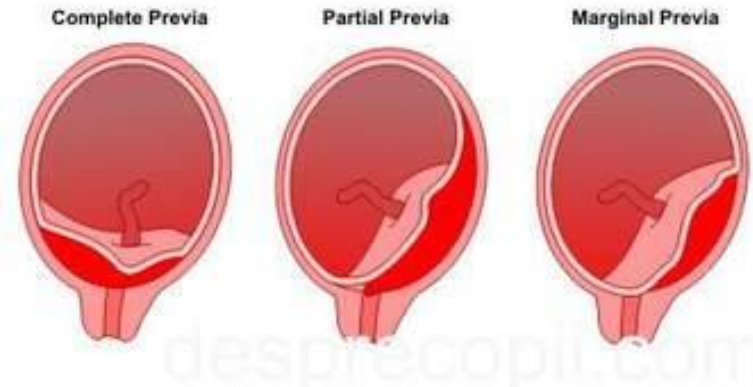
A major cause of maternal morbidity and mortality is Antepartum haemorrhage.This is defined as bleeding from the genital tract from about 20 weeks of pregnancy till the onset of labour.

Majorly divided into

1.**Placenta praevia (abnormally situated placenta)**



TYPES OF PLACENTA PRAEVIA



2.**Abruptio placenta (premature separation of the placenta)**

3.Others (Local causes)

Vaginitis/Laceration

Cervicitis

Cervical polyp,Cervical erosion

Cervical Cancer

Rupture of the Uterus

We evaluated the Risk factors and pregnancy outcome in different types of placenta praevia by a retrospective study of 306 women presenting with placenta praevia over a 10-year period. After controlling for confounding factors, women with major PP showed a significantly higher incidence of antepartum hemorrhage (OR 3.18; 95% CI 1.58-6.4, P = 0.001), placenta accreta (OR 3.2; 95% CI 1.22-8.33, P = 0.017), and hysterectomy (OR 5.1; 95% CI 1.31-19.86, P = 0.019).

Antepartum hemorrhage in women with PP was associated with premature delivery (OR 14.9; 95% CI 4.9-45.1, P < 0.001), more commonly in women with major PP.

We concluded that Complete or partial placenta praevia is **associated** with higher morbidity than marginal placenta previa or low-lying placenta therefore will require more surveillance antenatally.

Bahar A,Abusham A,Eskandar M,Sobande A,Alsunaidi M.Risk factors and pregnancy outcome in different types of placenta praevia. J.Obstet Gynaecol Can 2009,Feb;31(2) 126-31

Thus far,Mr Vice-Chancellor sir, is the presentation of my work in the maternal and fetal medicine over the years that I worked in the Middle East.

I believe that Inaugural Lectures apart from announcing to the academic community what one has done in the past, one should also give a hint of one's current interest .

In this regard, Mr Vice-Chancellor sir, I together with my team have been looking **at preeclampsia** from the point of view of early diagnosis and treatment of the dreaded disease.

Up until now, the entity is an Enigma, a disease of theories where there is as yet no known cure.ONLY DELIVERY. Unfortunately, the disease which is obviously a major cause of maternal death worldwide, is fast becoming the commonest cause of maternal mortality in Nigeria and other developing countries

1.CONGO RED DOT TEST FOR EARLY DETECTION OF PREECLAMPSIA

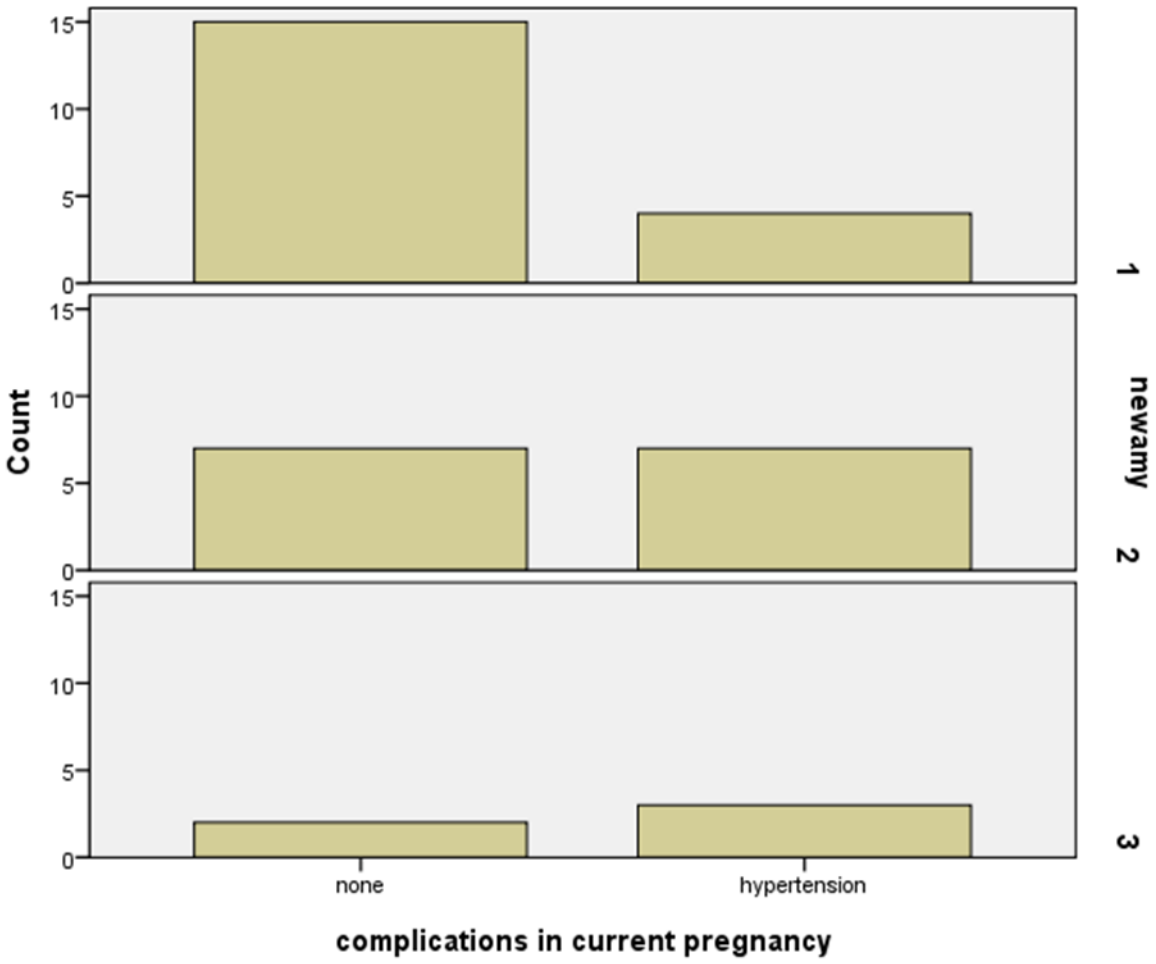
It was Buhimshi , a gynaecologist/obstetrician and also a proteomic expert from Yale in the US and her colleagues who first discovered that patients who had preeclampsia produced misfolded protein similar to Amyloid in their urine.This protein is Congo philic and therefore will stain when present. They also showed that this protein is present in urine of patients with preeclampsia ,much earlier than the clinical manifestation of the disease.In fact as early as 10 weeks of pregnancy.

Irina Buhimschi, Edmund Funai, Guomao Zhao,Antonette Dulay, Sarah Lee, Christina Han et al . Assessment of global protein misfolding load by urine"Congo Red Dot" test for diagnosis and prediction of outcome in women with preeclampsia (PE). Supplement to DECEMBER 2009 American Journal of Obstetrics & Gynecology S13

We in the maternal and fetal medicine unit of the department of Obstetrics and Gynaecology in collaboration with the biochemistry and chemical pathology departments conducted a pilot study to Determine the relationship between the concentration of amyloid in urine of pregnant women and hypertensive disease in pregnancy

We found out in this study that even though the presence of Amyloid did not determine whether or not a pregnant patient is prone to having hypertensive disease, a rising titre of the amyloid in urine increases the probability of the disease.

Our finding is yet to be published but it won the third position at the Lasucom Faculty day Research poster presentation few years ago. We are in the process of conducting a larger more robust trial on this disease



Still on Preeclampsia, we showed in a prospective study of Serum Iron Parameters in Preclamptic and Normotensive pregnant patients that iron parameters are increased significantly in patients with preeclampsia possibly as a result of its role in activating Reactive Oxygen species (ROH) which are damaging to the cells thereby leading to endothelial dysfunction as seen in preeclampsia.This findings have been confirmed by other authors(Rayman MP et al)

Rayman MP, Barlis J,Evans RW, Redman CW, King LJ,.Abnormal iron parameters in pregnancy syndrome pre-eclampsia.Am J Obstet Gynecol 2002;187(2):412-8

We advocated that pregnant patients with high serum iron are at risk of preeclampsia and therefore should be monitored accordingly. Although yet to be published , it won the best research poster award in the last Lasucom Faculty day.

Iron parameters in preeclamptic and control patients

Characteristic.Mean±SD	Cases	Conrols	Significance
Age (years)	32.59±5.37	30.33±5.69	NS
Serum Iron (µg/dl)	97.75±53.66	75.53±45.41	P<0.05
Serum Ferritin (ng/dl)	98.29±80.86	21.35±16.42	P<0.05
TIBC (ng/dl)	2.75±190.70	3.06±91.44	NS
Percentage saturation (%)	26.99±15.86	26.15±15.59	NS

2. EVALUATION OF THE ROLE SERUM VITAMIN D IN PREGNANCY.

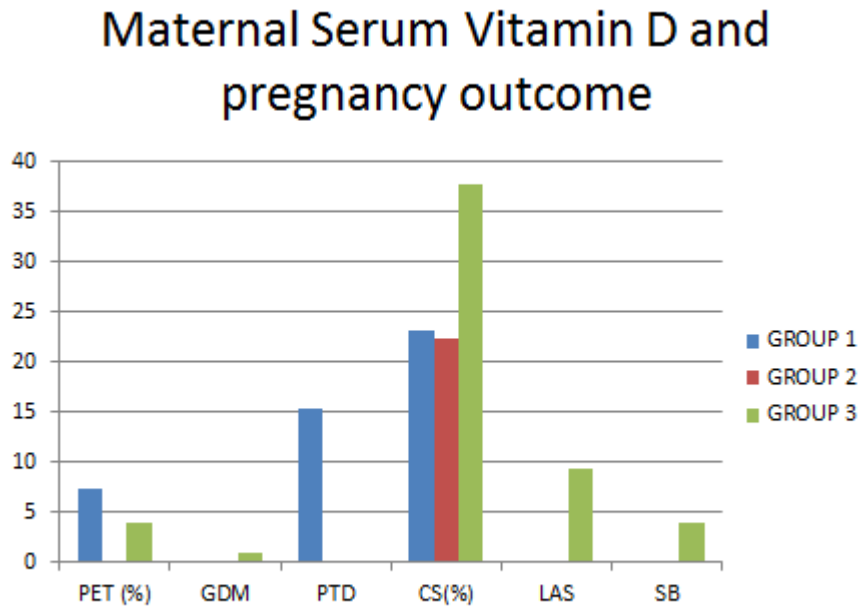
Various studies especially from the United States of America have implicated Vitamin D deficiency as one of the aetiological factors of preeclampsia. Given that the dark skinned race (Negros),because its melanin that inhibits to some extent the synthesis of Vitamin D should have low levels of the vitamin in the blood. They should theoretically be more susceptible to the disease.

We have conducted a prospective trial where we Evaluated Serum Vitamin D levels and pregnancy outcome (Sobande et al 2016 Journal of Obs/Gynae). 29% of the pregnant patients had Vitamin D deficiency, 10% insufficiency while 60% had normal or supranormal values. Our study failed to show any significant association between low levels of Vitamin D (hypovitaminosis D) and adverse pregnancy outcome including **preeclampsia.** However, we

found a subset of patients with hypervitamonosis D who had more cases of stillbirths presumably as a result of fetal hypercalcaemia and its subsequent adverse complications.

Serum vitamin D and pregnancy outcome. Characteristics

Characteristic .Mean±SD	Group 1	Group 2	Group 3	Significance
Maternal age (years)	32.4±4.57	30.74±4.91	31.34±4.19	NS
Gestational age at booking(wks)	24.00±4.38	24.93±2.69	29.00±5.56	NS
Haemoglobin (g/dl)	9.27±1.10	9.60±0.85	9.34±1.02	NS
Vitamin D level (ng/mL)	8.01±6.63	21.80±2.50	78.66±66.7	P<0.001



Abidoye Gbadegesin, Adekunle Sobande, Oluwole Adedeji, Elizabeth Disu, Oluwatosin Korede, Adedoyin Dosunmu & Adebusola Shakunle (2016):. Maternal serum vitamin D levels and pregnancy outcomes: from Lagos, Nigeria. Journal of Obstetrics and Gynaecology, DOI: 10.1080/01443615.2016.1196483

I have also supervised dissertations on the following Topics relating to Preeclampsia amongst others for residents who sat for the Final Part 2 Fellowship of the Nigerian Postgraduate Medical College and the West African College of Surgeons

1.Placental malaria and **Preeclampsia** ,Any relationship (Dr Adebayo)

2.Serum Lipids and **Preeclampsia (Dr Okoh –Newton)**

3.The association between Angiogenic/Antiangiogenic factors and **Preeclampsia (Dr Azzez).She just passed her part 2 final FMCOG.**

4.Preeclampsia and Placenta Associated Plasma Protein A .(PAPP A)-Dr Adesanya.

5. Association between Abnormal Doppler patterns and fetal outcome in preeclampsia- Dr Alausa

I am involved in the supervision of Masters degree programme thesis of a postgraduate student from the University of Lagos. **Preliminary Evaluation of Primer Pairs and Restriction Endonucleases Study Between Transforming Growth Factor Beta 1 Gene Polymorphisms and Preeclampsia in Lagos,Nigeria. Dr Tosin Oguntuase**

One of the Residents Dr Adebanjo that I mentored not only passed the Nigerian Post graduate diploma at first sitting, also went on to the pass the MRCOG also at first sitting without any previous work experience in the UK. This was a very unusual feat that he (Dr Adebanjo) attributed in part to my approach to patient's management.

We are planning to have a PREECLAMPSIA RESEARCH CENTER AT OUR HOSPITAL AND IN PARTERSHIP WITH OTHER CENTERS ABROAD COLLABORATE IN STUDIES ON PREECLAMPSIA.

COMMUNITY SERVICE

I am actively involved with the Voluntary Obstetric Scheme where members of SOGON visit primary health care centers in our Local Government to offer professional assistance/ advice when necessary

Conclusion

I have shown that we can reduce the rate of **caesarean section** and thus maternal mortality and by implication increase safe vaginal delivery by the PUSH AND PULL METHOD via

1.selective external cephalic version in term breeches/assisted vaginal breech delivery in carefully selected cases

2.Induction of labour in grandmultiparous patients with and without premature rupture of membranes

3.Induction of labour in patients with previous lower segment caesarean section without endangering the health of mother and baby.

4.I have also shown that

a. Cervical cerclage MAY NOT be useful in pregnant patients with twin pregnancy who have no clinical or ultrasound evidence of cervical incompetence.

b.Medical conditions like diabetes, hypertension and asthma during pregnancy are still associated with high perinatal loss and multiple fold increased risk of Caesarean section

c.On the still births, it seems that there is still a lot of unknowns with regards to the aetiology according to my findings. A lot still needs to be done by way of research in the placenta of patients with stillbirths. However, the first pregnancy and pregnancy after 10 deliveries are at risk.We also noted that the risk increases exponentially after the age of 25 years

7.Vitamin D deficiency may not be that significant in our environment as a causative factor of preeclampsia..

Recommendations

Mr Vice-Chancellor sir, this is rather difficult given that my research work is majorly clinical research conducted in another environment. However , I wish to state that the MMR in Saudi Arabia of 23/100000 live births compared to 545/100000 for Nigeria very unacceptable. Although Saudi Arabia is a much richer country economically than Nigeria given the per capita income ,we can do a lot more with the available resources

However, I wish to summarize the root causes of high maternal mortality in Nigeria under the following headings

A.Inadequate and inefficient financing of the health sector

B.Weak policies and governance structure whereby the local government is saddled with the responsibility of providing primary health care with little support from the state.Their budget should come to them directly from Abuja

C.Inadequate regulation of the private health sector including faith based healers and traditional healers.(Recognize them and give them another role to play rather than delivering patients)

D.Low quality primary health care facilities

E.Maldistribution of human resources-88% of doctors practicing in Nigeria work in private hospitals while 12% work in public hospitals /public PHC facilities

Firstly, the Abuja declaration - 2001 should be implemented.This recommendation states that African government should allocate at least 15% of their budget to health.As at 2010, only 6 African countries have met the target-Liberia, Malawi, Burkina Farso,Djibouti, Botswana and Rwanda.

Nigeria needs to increase its health budget ,so that there will be

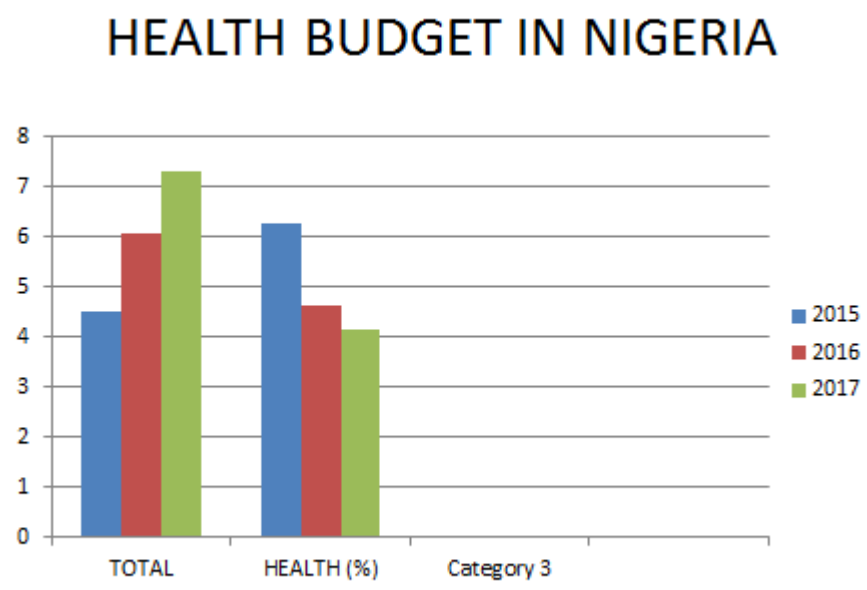
1. Adequate and well remunerated workforce.

2. Availability of essential equipments /essential drugs and commodities

3. Training and retraining of all cadre of staff to keep pace with the need of ever changing work environment and services.

4. Compulsory health insurance for all citizen

5. Continued education of the populace on need to utilize health facility for pregnancy care and child birth.



Again it has been shown in the 2017 national budget of 7.441 trillion) recently signed by the Acting President, where only a meagre 4.17 per cent was allocated to the health sector, which is arguably one of the most critical sectors that drive other sectors of a country INDICATE that the government is still toiling with lives of Nigerians. Only a healthy people can plan for security, development or economic advancement.

The World Health Organisation (WHO) says for Nigeria to be seen to prioritize healthcare, it must at the least spend a minimum of **N6,908** per Nigerian in a year, which when multiplied by 180 million people will amount to N1.2 trillion as against N304 billion

This, when compared to Nigeria's **N1,688** per head for a whole year, suggests why the country still grapple with poor health indices and the poor mortality rates for a country that prides itself as the giant of Africa.

If N1.2 trillion is budgeted and spent on healthcare for a year, as against the current N304 billion being allocated to healthcare for 2017, it will go a long way in solving significant health issues in the country.

Well-meaning Nigerians and organizations can donate towards healthcare. “With these systems in place, out-of-pocket expenditure will gradually face out, as it would reduce the financial burden of most Nigerians, who are known to live on less than $2 per day.”

May be we should be outsourcing some of the services in the health sector- catering, laundry, laboratories. I am aware that government started a private/public partnership in some areas of health delivery.

IN A NUTSHELL

MORE FUNDING, MORE FUNDING,MORE FUNDING

LESS CORRUPTION ,LESS CORRUPTION, LESS CORRUPTION.

Acknowledgement

Almighty God who has spared my life till this day. I was very sickly as a child and my mum and indeed all close relations did all they could to see to it that I survived despite the fore telling that I would probably die by the age of 7.But God said NO. (PREDESTINATION)

2.Vice Chancellor for allowing me to do this

3.My mentors in Saudi Arabia- Prof Grillo, Prof Ajao, Prof Bishop Bello, Prof Olu Osinowo.Even though not Obstetricians, they inspired and encouraged me to get enough publications for promotion , or I would “ PERISH” most especially Prof Osinowo, who though a cardio thoracic surgeon is also an intellectual .”A man of many parts”,very thorough.

I will also like to mention my Consultants in the UK who were very accommodating,patient,nice and helpful not minding my colour- Mr Roy Condie, Mr John Peck, Mr Wyllie, Mr Yeo.They took me through the rudiments of Obs & Gynae.

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Parishioners of SPCB.Thank you for coming.God bless you all.

Our Patrons- the Very Rev (Dr) Yinka Omololu and the retired bishop of Lokoja – Rt Rev George Bako OON.

I am grateful to members of the Church Medical Society.

Ibadan Grammar School Old Students Association(IGSOSA).Please stand up to be recognized if any is here.Up Mountaneers.God Bless you all

All my friends.Please let me recognize and appreciate you.

My friendly neighbours

My family members,

My late parents Pa James Ebuntola Sobande and Sarah Adeola Sobande. I thank God for using you to bring me to this world. Papa JE (awon papa)passed on to meet with the Lord in the year

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