#### controversy

# ULTRASONOGRAM Vs OBSTETRICIAN

**JOSHI SUYAJNA D.** 

Professor of OBG VIMS- BELLARY

#### WHO IS THE BOSS

ULTRASONOGRAM (scan the machine)

Or
OBSTETRICIAN
(the clinician)

Where is the clinical OBSTETRICIAN!
WE HAVE SONO-OBSTETRICIANS

#### **SONO-OBSTETRICIAN**



#### WHO IS THE BOSS

THE MACHINE
OR
THE MAN(OBSTETRICIAN)

NOT BETWEEN
SONOLOGIST
&
OBSTETRICIAN



#### MATERIAL SOURCE

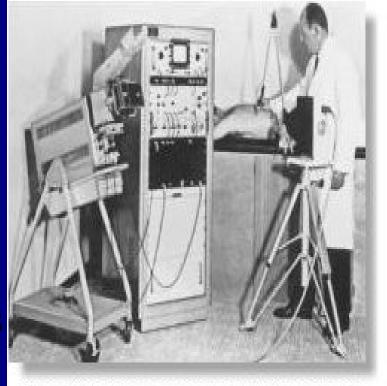
U S PREVENTIVE TASK FORCE GUIDELINES:

CLASS III....OPINIONS BASED ON
CLINICAL EXPERIENCE,.....

#### Clinical experience

22 years of obstetrical practice

50% before scan
And
50% after scan
50000 antenatal cases
25000 scan reports



The articulated arm scanner that Wright and Meyer built in 1962, the earliest of such design in the U.S.

**JOSHI** 

#### RECOMMENDATION



#### NIL

SATIRICAL APPROACH TO PROVE

THAT

TODAY

SCAN IS MORE IMPORTANT THAN THE OBSTETRICIAN

#### SCENARIO

**DAY TO DAY** 

OBSTETRICAL PRACTICE

**ANYWHERE IN INDIA** 

NOT INCLUDED: 1.PRENATAL DIAGNOSTIC CENTRES

JOSHI SUYAJNA D.

2.INTERVENTIONAL SCAN UNITS



# RADIOLOGIST CAN SURVIVE WITHOUT SCAN

BUT NOT THE

**OBSTETRICIAN** 



#### Scan vs. Obstetrician

## SCAN TO OBSTETRICIAN is like

**TELEVISION to the WORLD** 

NO SCAN- NO OBSTETRICIAN

#### WHO IS THE BOSS

I AM THE UNIT CHIEF

**BUT NOT THE BOSS** 

SCAN IS THE 'BOSS'

## WHY DOES PRGNANT LADY COME TO OBSTETRICIAN

- 1. FOR SCAN
- 2. FOR INJ. TETANUS TOXOID

YOUR OPINION?
(WHO WANTS IT?)

#### BABA OF OBSTERICS

#### **SCAN** IS

#### THE GOD

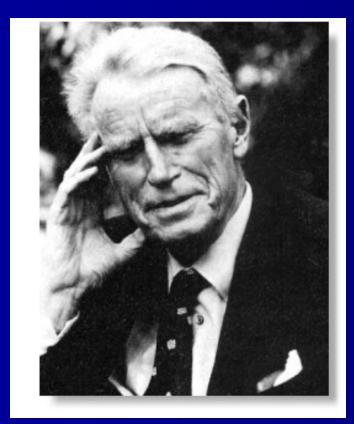
Because:

He can see everything
He can predict everything
He can hide many things!

# THE FIRST & THE LAST QUESTION OF THE PREGNANT LADY

WHAT ABOUT THE SCAN!

#### PROFESSOR IAN DONALD



'PRACTICAL OBSTETRIC PROBLEMS'

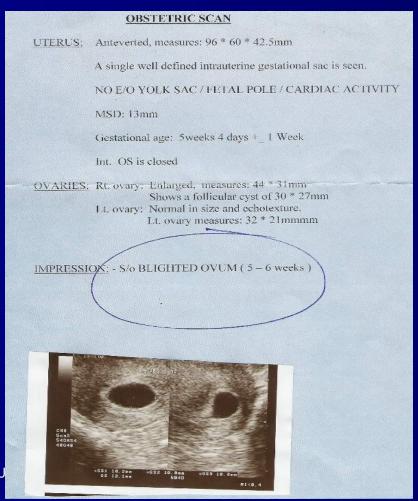
OBSTETRICS
IS AN ART

## WHAT IS HAPPENING TODAY-JUST ONE EXAMPLE

#### WRONG DATES

#### **MANAGEMENT:**

- A. TERMINATION
- B. CONTINUATIONWITH5 SCANS



#### INTRODUCTION OF SCAN by Prof. IAN DONALD 1958

THIS IS THE **BEGINNING OF** THE END **OBSTETRICS** AS AN **ART** 

. ARTICLES

THE LANCET

#### INVESTIGATION OF ABDOMINAL MASSES BY PULSED ULTRASOUND

IAN DONALD

M.B.E., B.A. Cape Town, M.D. Lond., F.R.F.P.S., F.R.C.O.G. REGIUS PROFESSOR OF MIDWIFFRY IN THE UNIVERSITY OF GLASGOW

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T. G. BROWN OF MESSES, KELVIN HUGHES LTD.

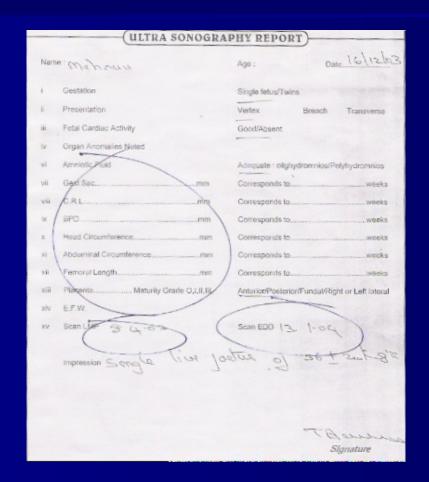
VIBRATIONS whose frequency exceeds 20,000 per second are beyond the range of hearing and therefore termed "ultrasonic". One of the properties of ultrasound is that it can be propagated as a beam. When such a beam crosses an interface between two substances of differing specific acoustic impedance (which is defined as the product of the density of the material and the velocity of the sound wave in it), five things happen:

- (1) Some of the energy is reflected at the interface, the amplitude of the reflected waves being proportional to the difference of the two acoustic impedances divided by their sum (Rayleigh's law). Therefore the greater the difference in specific acoustic impedance between two adjacent materials the higher will be the percentage of energy reflected. This fact makes a liquid-gas interface almost impenetrable to ultrasound and is important in relation to gas-filled intestine within the abdominal cavity.
- (2) Much of the energy which is not reflected is transmitted into the second medium but is somewhat attenuated.
- (3) Some refraction may occur, particularly when the ultrasonic beam is not at right-angles to the plane of the interface.
- (4) Some of the energy may be absorbed and produce heat. The ability to absorb ultrasound varies with different tissues —e.g., that of bone is considerable.
- (5) Cavitation may be produced if considerable energies are present at the lower ultrasonic frequencies. This phenomenon, whose mechanism is not yet fully understood, can develop when the negative sound pressure exceeds the ambient hydrostatic pressure, giving rise to small temporary voids in the material. Cavitation becomes increasingly difficult to produce as the frequency of the ultrasound is raised, and usually develops only when the ultrasound is raised, and usually develops only when the ultrasound is raised, and usually develops.

#### PATIENT WANTS SCAN

**NOT QUALITY** 

SCAN REPORT



## NOT THE QUALITY OF THE REPORT-JUST A REPORT





#### FOETAL ANOMALIES

#### LESS OFTEN REVEALED

#### MORE OFTEN MISSED

IN

DAY TO DAY PRACTICE

JOSHI SUYA

#### Ultrasound fails for this infant Bangalore: Did technolo sy prove wrong for timbo Sai Madhero? Ultrascond mechines, supposed to despet abportunities in undorn Roettus, fixtied to-detact a pero trusting hamp from the brain, holes in the heart and a malformed ear for this infant. Drock colly and gyraecologists who treated the child could not detect any abnormality till he was here. All some reports of the child taken. during prognancy said the unborn factus was normal. The altrasound scannilatry Soi Modfores were born with holes in his he report sault fireful cur-ACTIVITY WHEN PER PROPERTY. a multiproved ear and a Made o been second furnish for the boston. But Madhawa has now been al abnormalities par be de tected even at lifth or sixth diagnosed with nerloss concentral disease with mounts. gynascologist holes in his heart, minures. Rastneyh Somayadi said other he was born. Thought Member of the central the head circumference, acsupervisory committee on cording to the scan report. implementation of the Prewas recental, the child was Named Diagnostics Techbeen with a busy hump promagues Act and emeritus trusting from the brain. professor at the department Today, Machines is nine of Human Genetics. moenths old and far befund Johns Medical College. the children of his age in Managama Thomas said terms of physical and menthough uttra-some replay tal development. He does cannot detect every observe not sit on his own suffers. mality in the foctus, doctors from lung infection and ought to look for minute debreathes loudly. talls while scanning Speaking to The Times of Though the hamp Judio, doctors admit that the broad has been removed. ultrasound scanning candiscrers fear the fluid might not detect every abnormalisettle down in the brain by up a factors. "This is not to eausing further damage to ondermine the usage of allthe necessus system. It will cost Madhern's middle-class percufa more does not show abnormalithan Hts 2 liable to make him ties until after borth Thurs normal and healthy Those the pitfail of technology. who wish to contribute for radiologist said. the infant may do the some But gyraneologie to ID No. 35128, Navayana the only subjectly brings Hrudayalaya, Bommasancan occur during ultradra Industrial Area or call sound somning. "Structur-

#### FOETAL ANOMALIES

#### COMMONLY MISSED ANOMALIES

- a. Cardiac
- b. Renal
- c. Esophageal
- d. Palate and lips
- e. Ear lobes

d.....

List continues



#### SEX DETERMINATION

## SCAN HAS SCANT RESPECT FOR PNDT- ACT

SINGLE MOST FACTOR REVOLUTIONISED
FEMALE FOETICIDE

IS

**SCAN** 

#### **PNDT-ACT**

#### a PAPER TIGER

BECAUSE OF SCAN

## WHO KILLS MAXIMUM

#### NUMBER OF 'GIRL CHILD'

THE SCAN



## INVESTIGATION WITHOUT SYMPTOM

BECOMES CAUSE OF MAJOR ILLNESS

E.g.. Cardiac catheterization, PAP smear, Scan etc.

DR. B.M.HEGDE

# SCAN IS A WONDERFUL INSTRUMENT IN THE RIGHT HANDS



#### A DEVIL

#### in the WRONG HANDS

