

# Kisslo Says – 30 Years of Teaching from an Echo Master

MSE 30 Year Jubilee

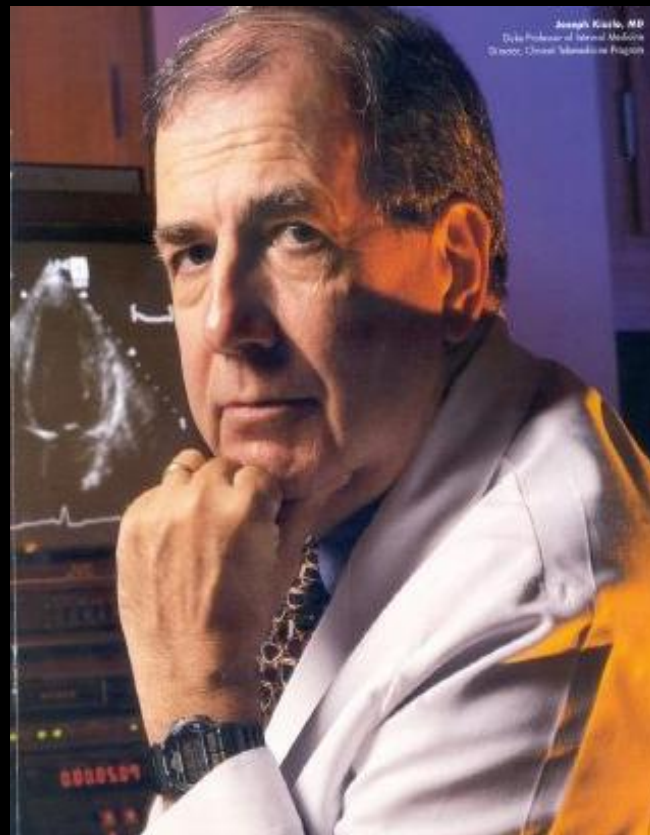
October 29<sup>th</sup> 2011

David Adams, RCS, RDCS

No CME  
conflicts but a  
disclosure...

# Joe Kisslo, MD

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# After a few years I realized:

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- Joe felt that real change comes from chaos.
- His job was to create chaos.

# Joe Kisslo, MD

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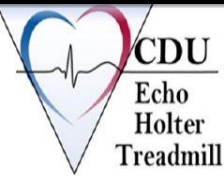
- 1966 - 1<sup>st</sup> echo in med school
- 1968 - Navy Doc for 2 years
- 1971 - Yale: Peds Card Fellow
- 1972 - Duke: Adult Fellow
- 1974-77 – Duke Cath Attending and developed 2D Phased Array
- Fourth ASE President

“I will not retire until...”



*DUKE: Adams*

# August Newsletter



## CDU Newsletter

August 2011  
Volume 1, Issue 8

### CDU Shining Star— by Kris Arges

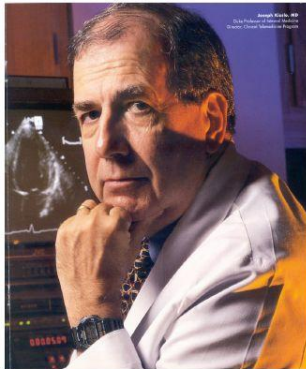
This month's shining star goes, hands down, to Dr. Joseph Kisslo in recognition for his many years of service at Duke and his innumerable contributions to the Duke Echo Lab and the field of echocardiography. Throughout the years, Joe has distinguished himself as an innovator responsible for the advancement of technology in this field. A mentor to many, Joe is perhaps best known for his commitment to teaching, to the extent that the conference room in 2K, Duke South, was named after him. He

has led more "high-five" discussions in this room than one could possibly tabulate. Consistent with his desire to share knowledge, he has, in recent decades, developed the world's largest satellite educational telemedicine.

**"You will never know the significance you played in my life...by the gifts you've given me...and the gifts you've given to each other. You'll just never know."** - Joe Kisslo, MD

He has published well over 200 original peer reviewed manuscripts and authored 4 books on echocardiography.

Dr. Joseph Kisslo steps down next month from his clinical appointments of many years. Although he has garnered world wide respect for his brilliant mind and contributions, he is perhaps, most revered here, at Duke, by his own CDU family and colleagues. While we will all miss his clinical contributions, we know that we will continue to see Joe in the years ahead and will continue to be inspired by his enthusiasm and commitment to research in echocardiography. We love you Joe!



**"I came to Duke thinking I would have opportunity to meet and interact with the brightest people in the world. I underestimated Duke."**  
Joe Kisslo, MD



### Inside this issue

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# My History

# Navy Corpsman (69-73)



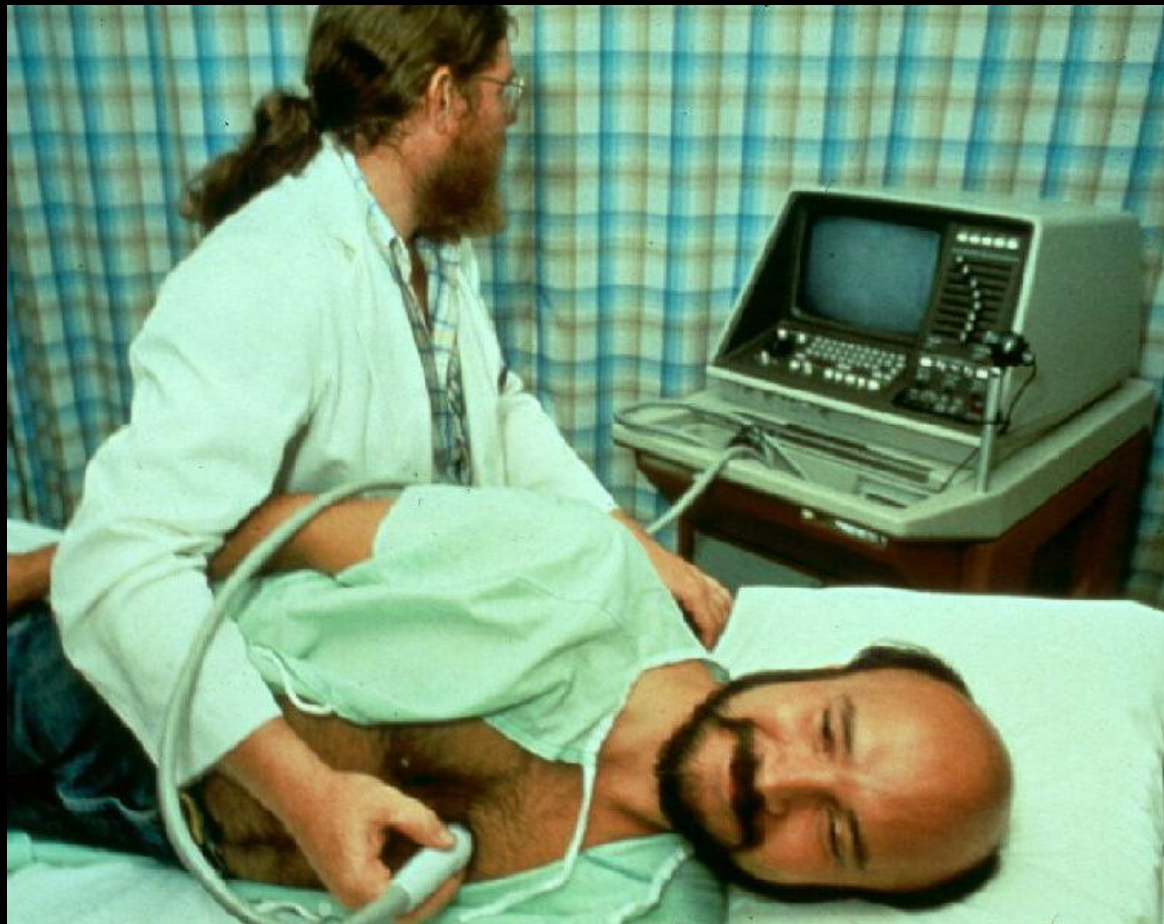
***DUKE: Adams***

Navy Corpsman (69-73)  
Spokane CC (73-79)



***DUKE: Adams***

# Duke 1979



Page 1986



*DUKE: Adams*

# Godfather Joe

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*DUKE: Adams*

# Today's Talk

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- Kisslo Rules for Echo
- Kissloisms
- Random other stuff

# The Kisslo Rules

Dr. Joseph Kisslo  
Conference Room

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Dedicated to  
Joseph A. Kisslo, Jr., MD  
Professor of Medicine

In recognition of a great teacher and his three rules:

- if you don't point at it, you can't see it.
- if you don't see it, you can't diagnose it.
- it is not the heart, stupid.

August 25, 2005

# The Kisslo Rules

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1. If you don't point at it you can't see it.

# Kissloisms

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- “Clots, masses, vegetations, etc... haven’t read the Feigenbaum textbook on standard views.”

# The Kisslo Rules

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1. If you don't point at it you can't see it.
2. If you can't see it you can't diagnosis it.
3. It's not the heart stupid!

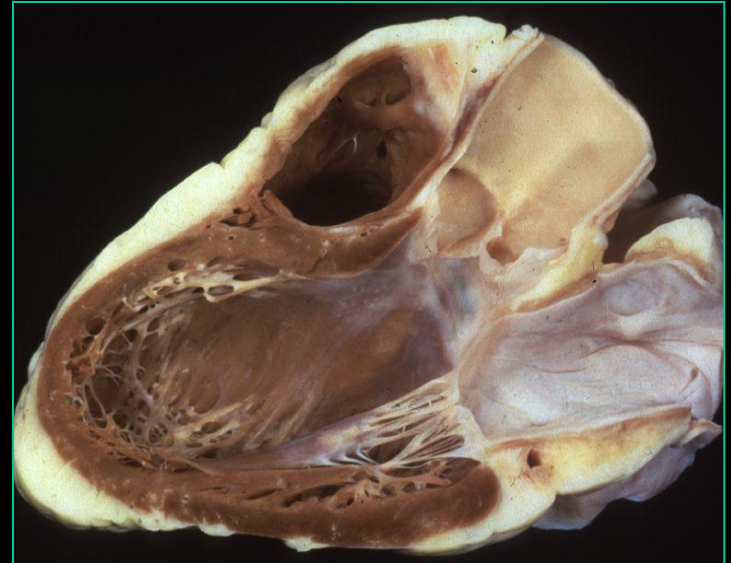
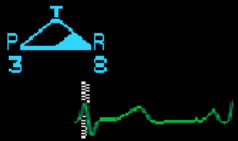
# It's Not the Heart Stupid!

MI: 1.4  
S8  
11 AUG 02  
12:33:16  
2/0/E/FS  
DUKE #17

DUKE ADULT

GAIN 60  
COMP 55  
85BPM

15CM  
66HZ



# The Kisslo Rules

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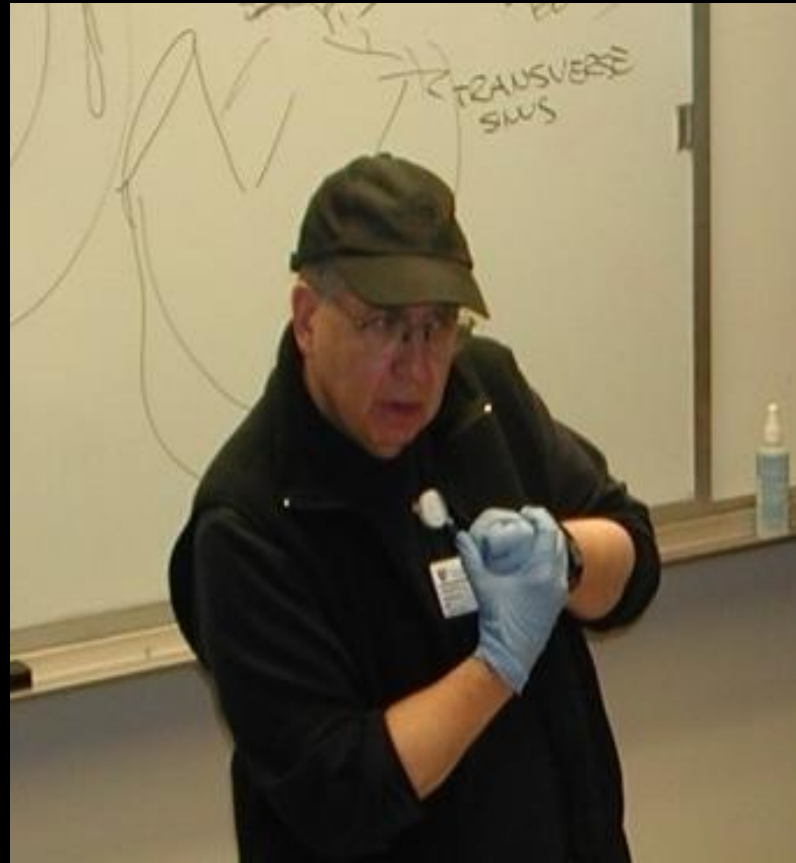
1. If you don't point at it you can't see it.
2. If you can't see it you can't diagnosis it.
3. It's not the heart stupid!
4. Talk to each other.

# HI 5s

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- Every day we meet at lunch
- Time to talk to each other
- Incredible teaching

# The Ventricles



# Kissloisms

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- “I’ll keep asking you until you are wrong or you don’t know.”
- “Then teaching can begin.”

# Heart Dissections



# HI 5s

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- Every day we meet at lunch
- Time to talk to each other
- Incredible teaching
- Multiple Kissloisms

# Kissloisms

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# When Giving a Talk

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- Stand
- Keep the room lights on
- Know your audience
- KISS

# KISS

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- People only remember 3 things from any talk
- 3 points to remember
  - Tell them what you are going to say
  - Say it
  - Tell them what you told them

# When Giving a Talk

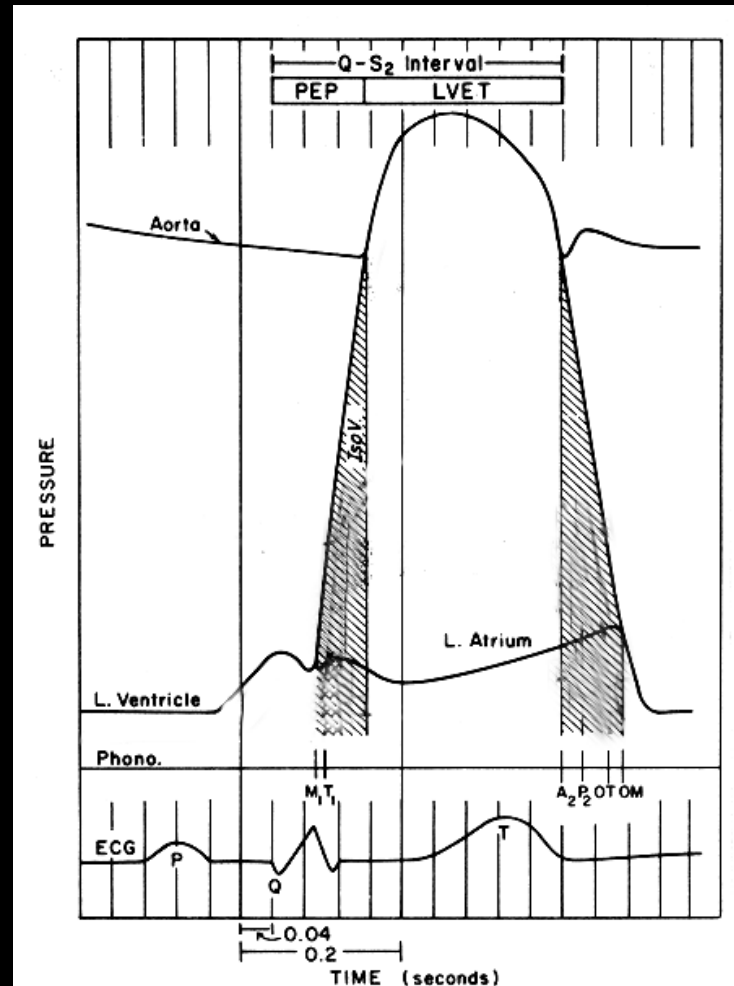
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- Stand
- Keep the room lights on
- Know your audience
- KISS
- Control your pointer

# Kissloisms

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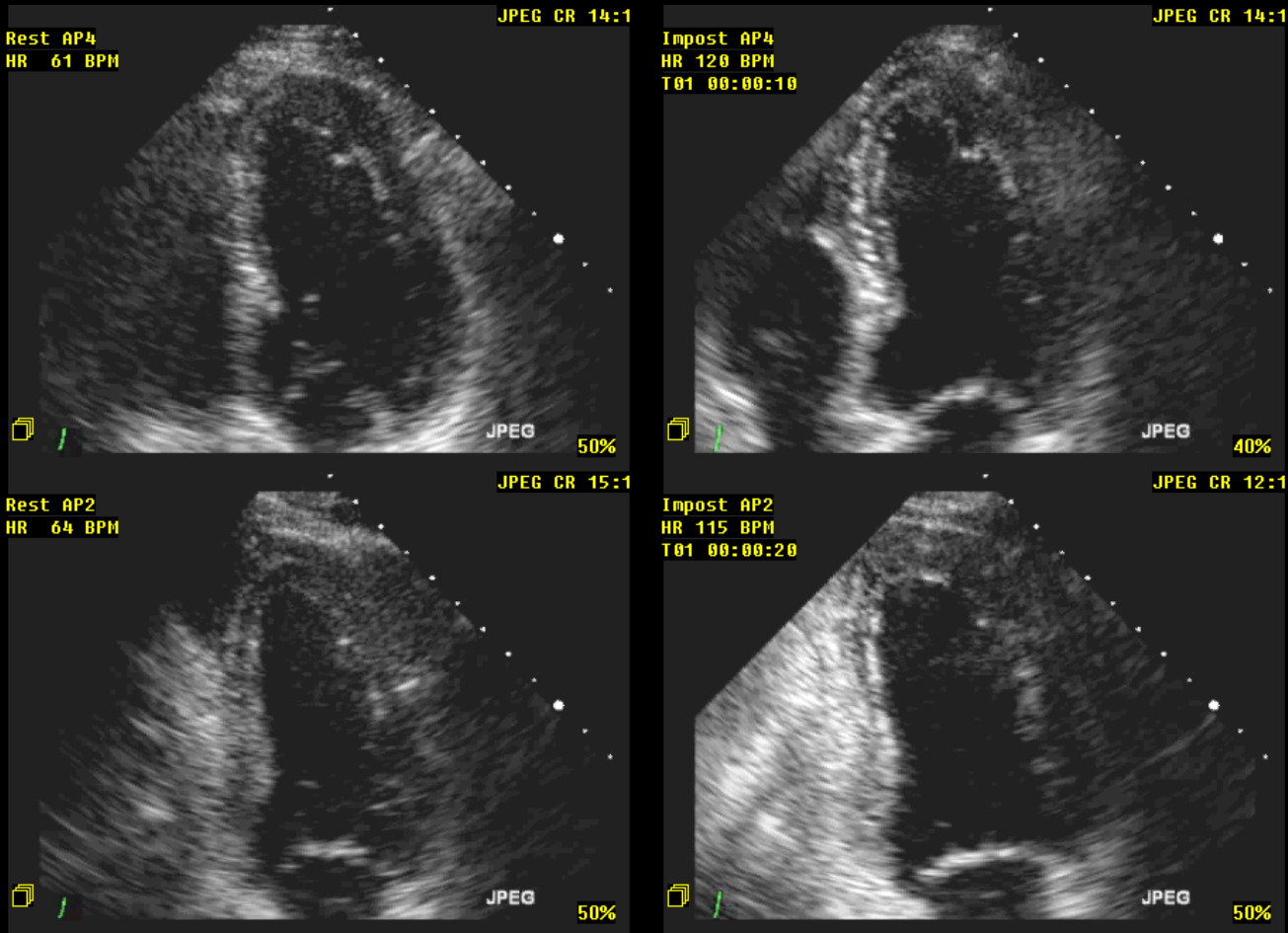
Every Fellow & sonographer should be able to draw this.



# Kissloisms

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“Only 5 people chosen by God  
can read a stress echo.”



# Kissloisms

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- “and I’m not one of them”

“I want my Green Blob back!”



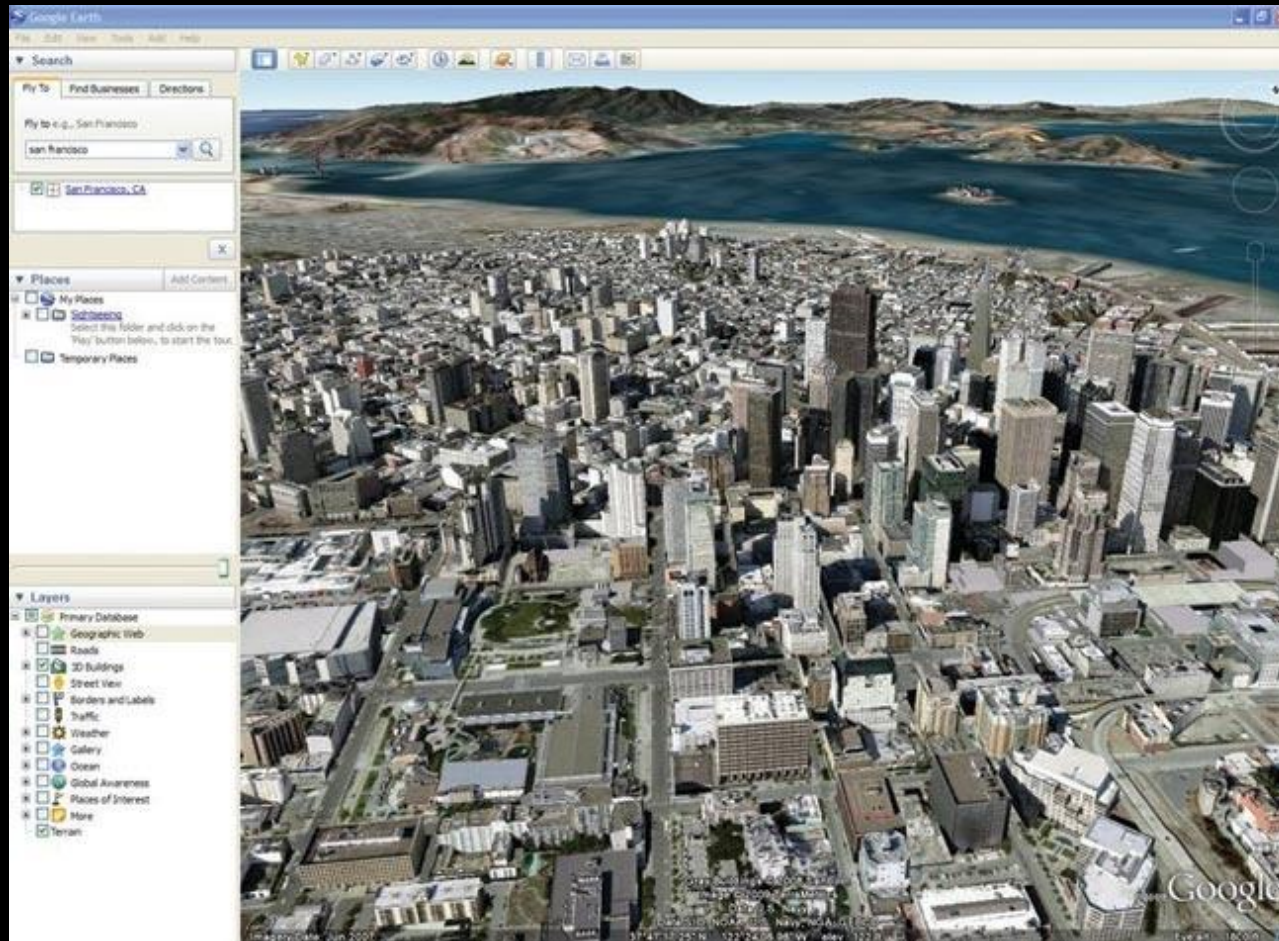
# Early 3D papers

- Kisslo, J., Ota, T., Fleishman, C.E., Stetten, J., Li, J., **Ohazama, C.J.**, Ryan, T., **Adams, D.B.**, Landolfo, C., von Ramm, O.: Real-time volumetric echocardiography: Everything at once. In Three-Dimensional Echocardiography of the Heart and Coronary Arteries, Edited by J.R.T.C. Roelandt. Van Zuiden Communications. Alphen aan den Rijn, The Netherlands. pp. 37-50, 2000.
- 
- Kisslo, J., Firek, B., Ota, T., Kang, D.H., Fleishman, C.E., Stetten, J., Li, J., **Ohazama, C.J.**, **Adams, D.B.**, Landolfo, C., Ryan T., von Ramm, O.T.: Real-time volumetric Echo: The Technology and the Possibilities. Echocardiography, 17:773-779, 2000.

# Chikai Ohazama



# Google Earth



# Kissloisms

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- Sometimes you need a break from them.

# Why Joe flies 1<sup>st</sup> Class

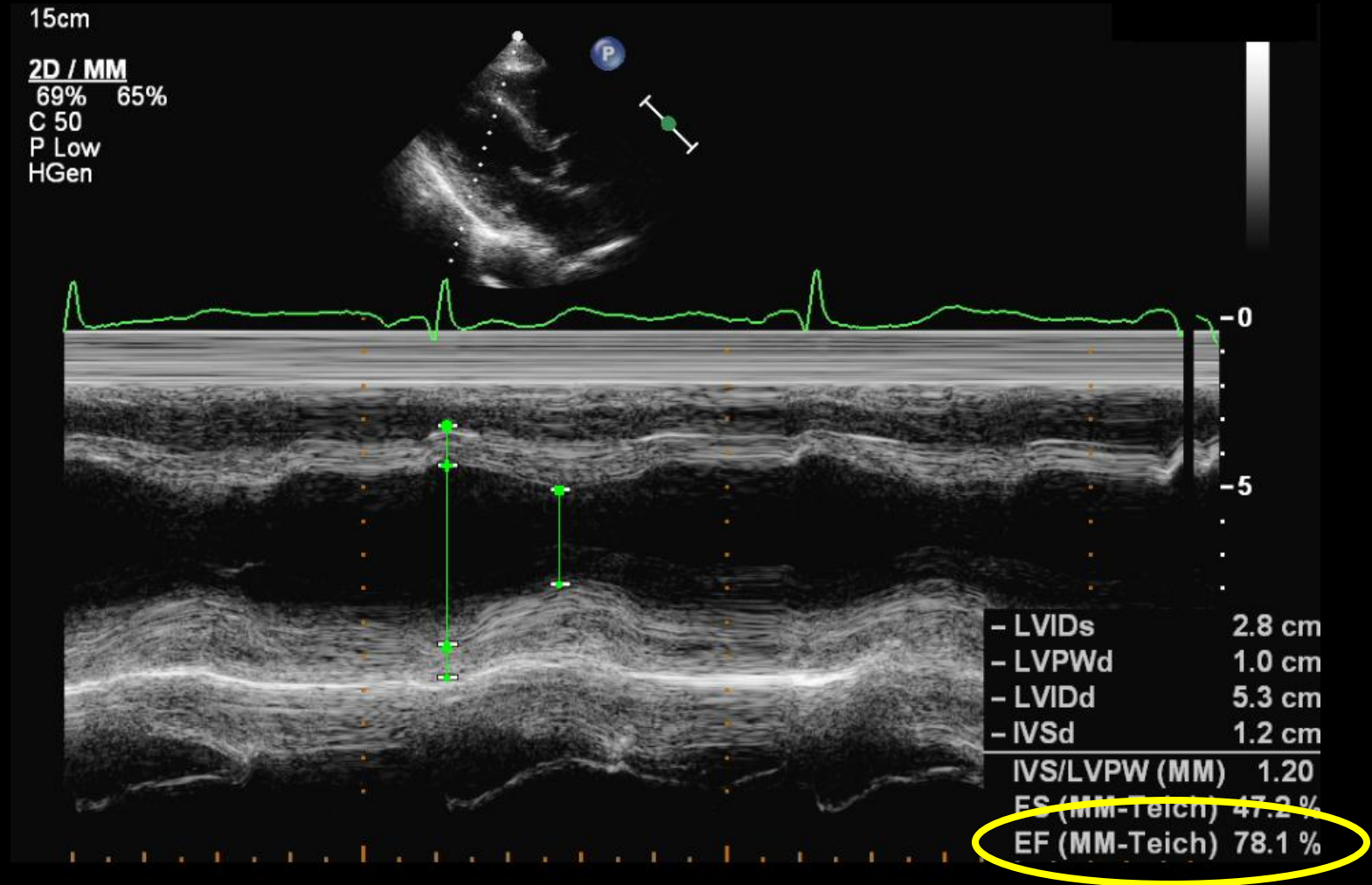


# Kissloisms

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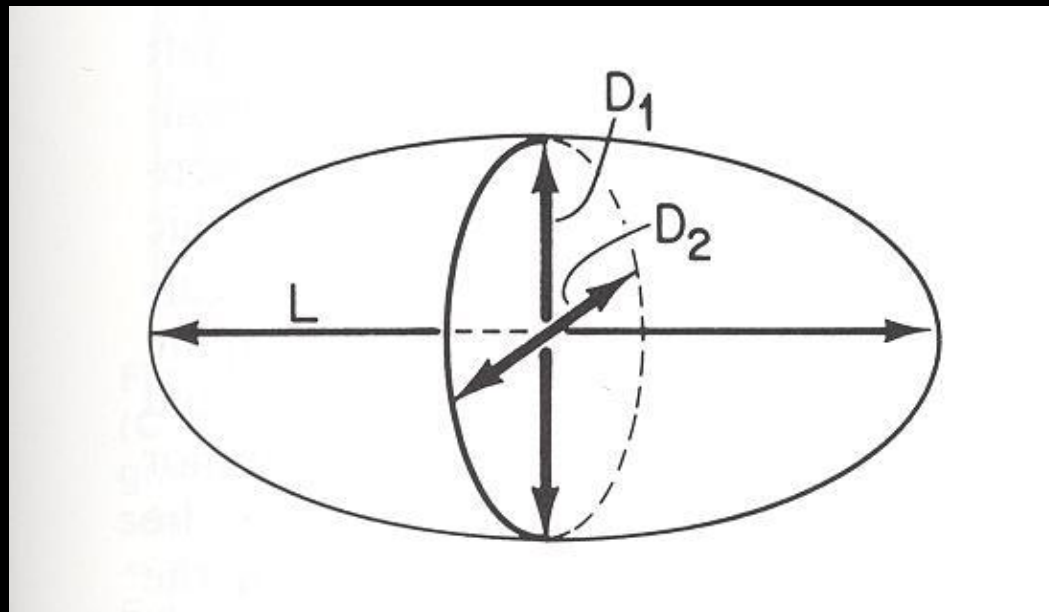
- “Don’t measure something just because you can.”
- “Numbers must make sense.”

# Bad M-mode EF



# Prolate Ellipsoid Formula

$$\text{Vol.} = \frac{4}{3} \pi \frac{L}{2} \frac{D1}{2} \frac{D2}{2}$$



# Prolate Ellipsoid Formula

$$\text{Vol.} = \frac{4}{3} \pi \frac{L}{2} \frac{D1}{2} \frac{D2}{2}$$

$$\text{Vol.} = \frac{4}{3} \pi \frac{2D}{2} \frac{D^2}{4}$$

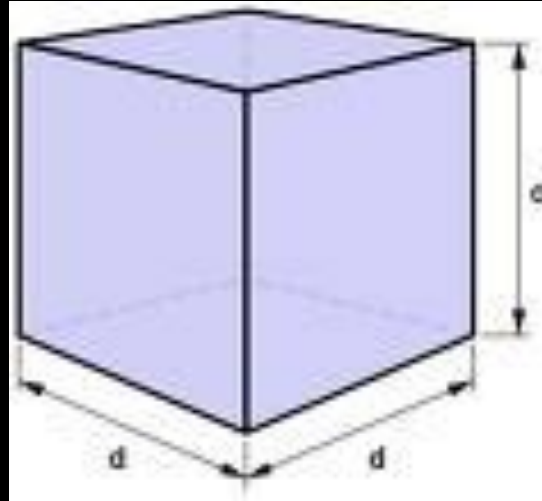
# Prolate Ellipsoid Formula

$$\text{Vol.} = \frac{4}{3} \pi \frac{L}{2} \frac{D1}{2} \frac{D2}{2}$$

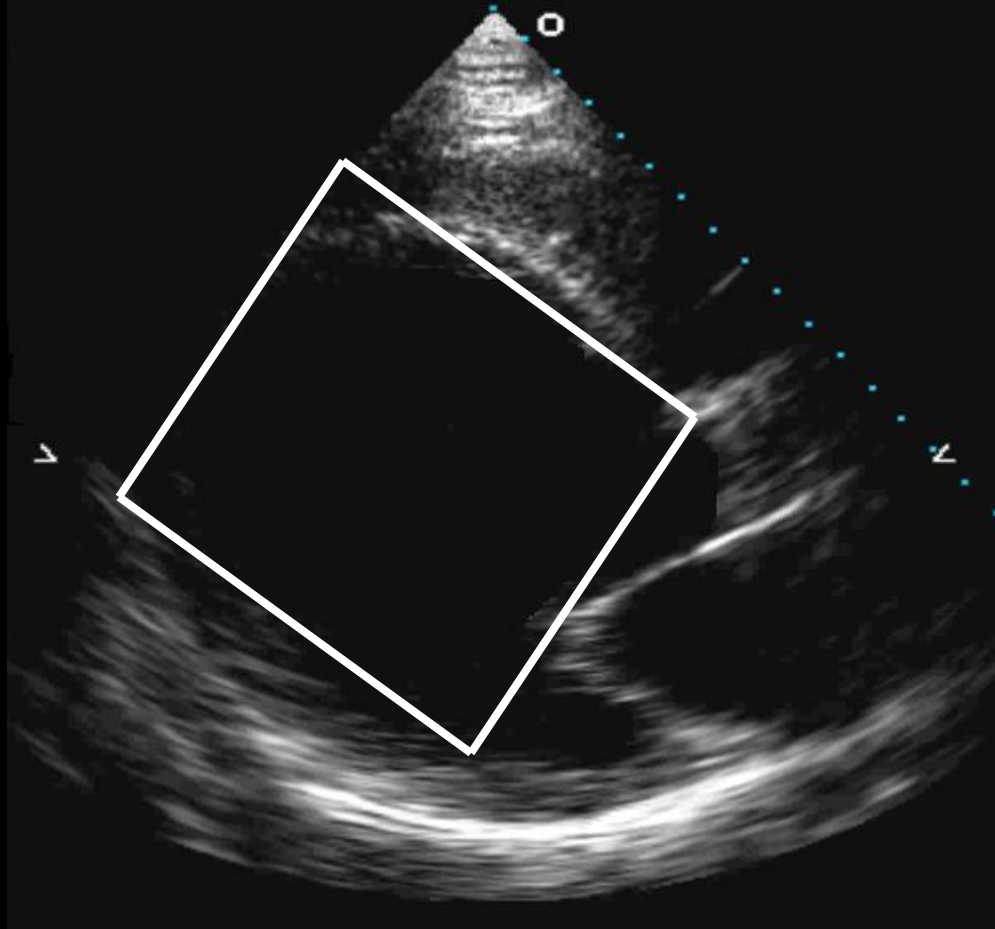
$$\text{Vol.} = \cancel{\frac{4}{3}} \pi \cancel{\frac{2D}{2}} \cancel{\frac{D^2}{4}}$$

$$\text{Vol.} = D^3$$

$$D^3 =$$



“This is intellectually  
offensive!”



# Kissloisms

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- “Don’t measure something just because you can.”
- “Numbers must make sense.”
- “The machines allow you to look stupid!”

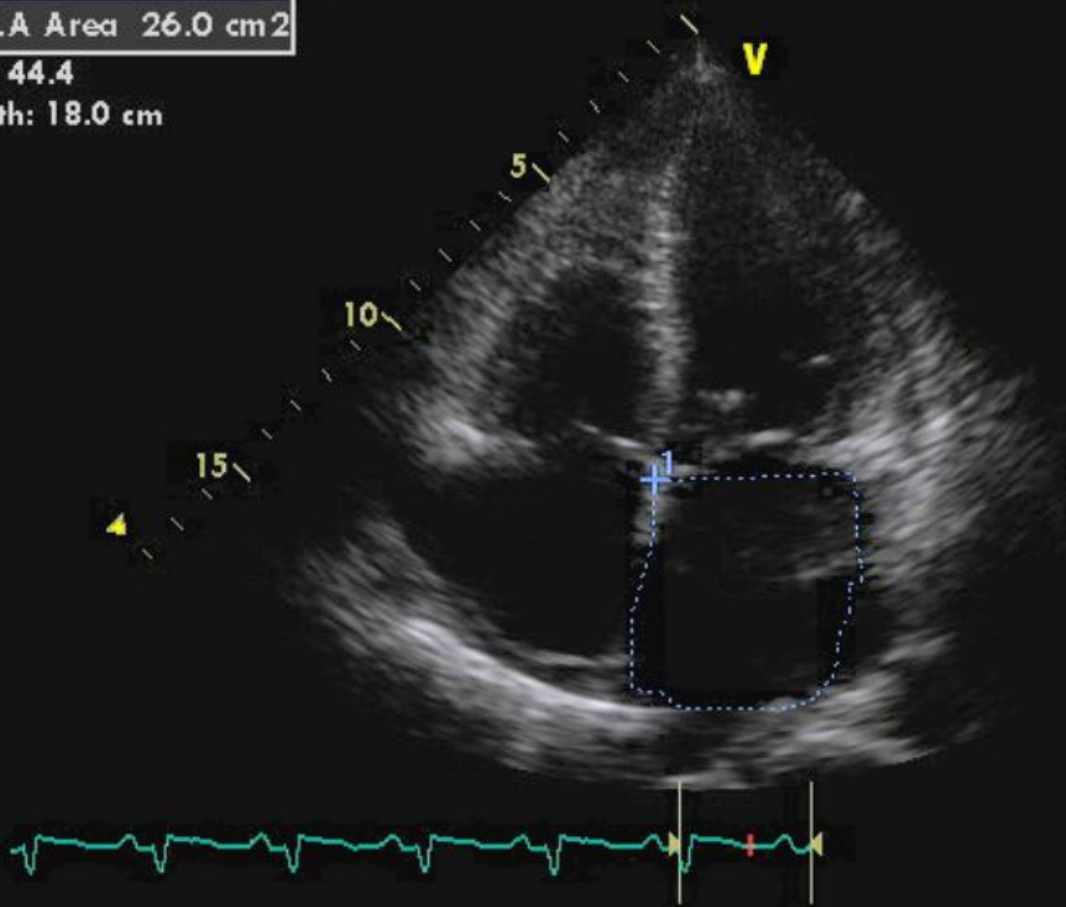
8/17/2007 02:47 PM

JPEG CR 19:1

1 LA Area 26.0 cm<sup>2</sup>

FPS: 44.4

Depth: 18.0 cm



00  
1 of 1  
PR

**DUKE: Adams**

# Kissloisms

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- “The echo isn’t finished until it’s read and the report gets to the clinician.”
- “Not when YOU are done!”

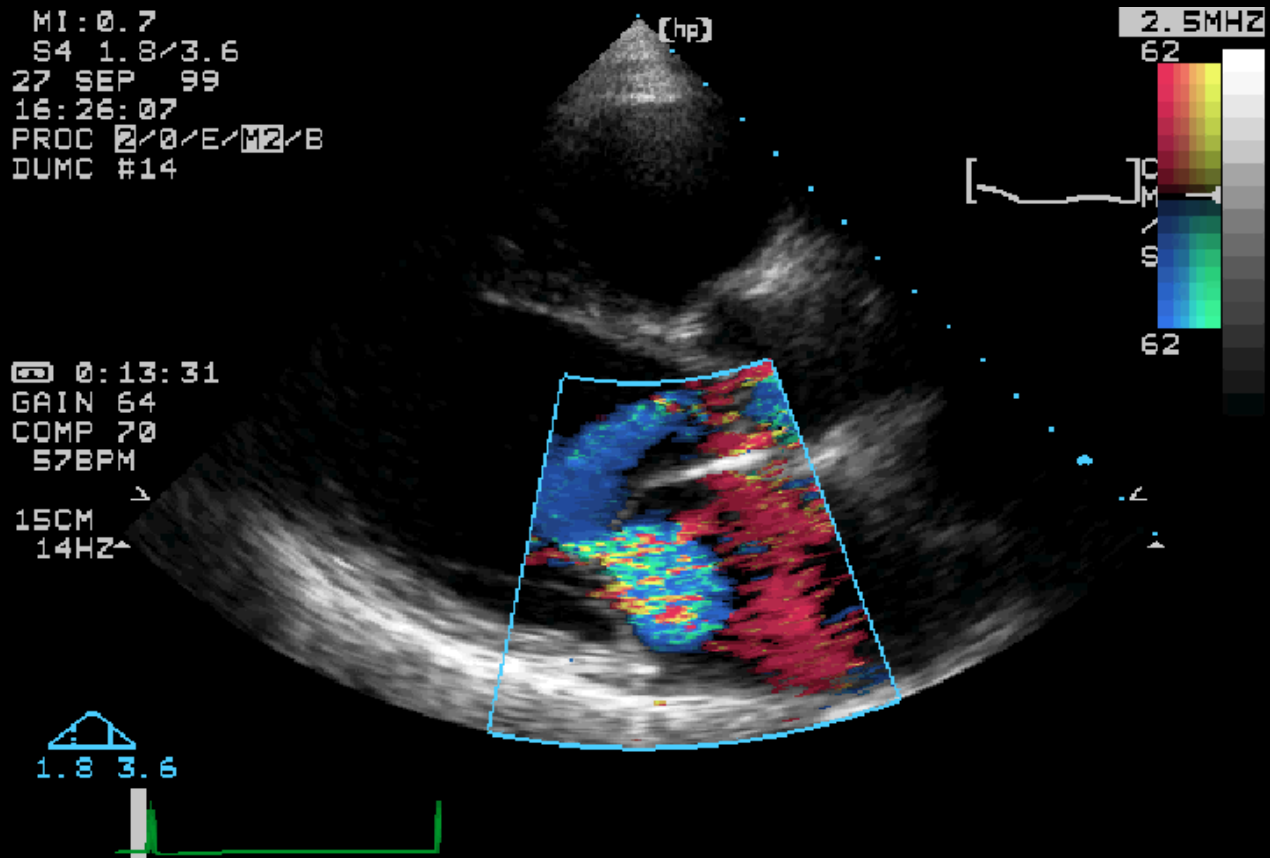
# Kissloisms

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## Stupid Echo

- Hyphens (mild-mod, mod-severe)
  - Good for Echo Waffling
  - Bad for clinicians

# No Waffling



# Kissloisms

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- “Don’t leave me a stupid note!”



SOMEONE FROM THE  
GYNA COLLEGES  
CALLED.

THEY SAID THE  
PABST BEER IS  
NORMAL.

I DIDN'T EVEN  
KNOW YOU LIKED  
BEER

# Kissloisms

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## Stupid Echo

- Diastolic Dysfunction
  - Does it make sense?
  - What do the clinicians do with it?
  - Are we measuring / reporting just because we can?

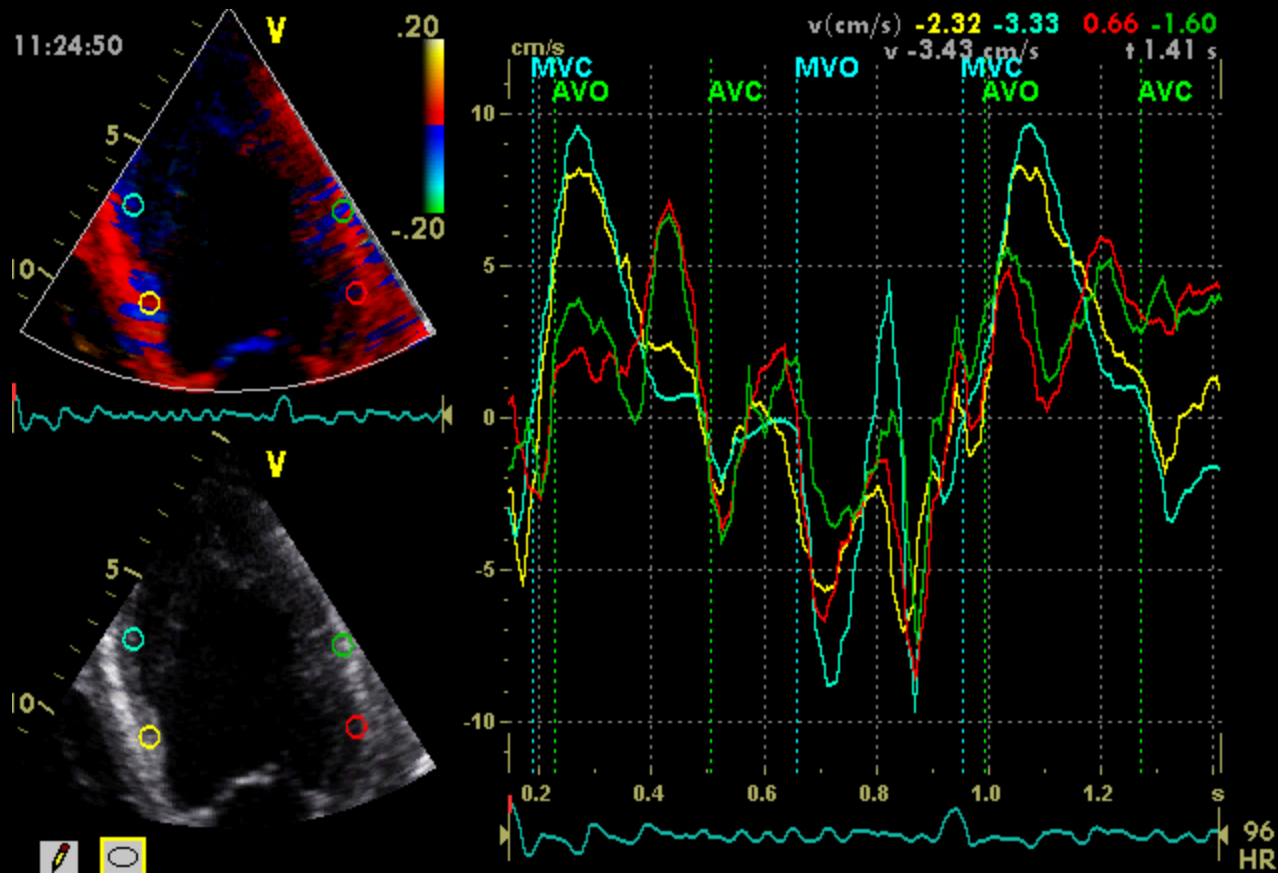
# Kissloisms

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## Stupid Echo

- “Do not be confused by the manufacturers blinking lights.”

# Blinking Lights



# Kissloisms

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## Stupid Echo

- Echo only phrases
  - Hockey stick mitral valve

# Rheumatic Mitral Stenosis

04/22/02 10:34 AM  
S4  
22 APR 02  
10:47:37  
2/0/E/F5  
DUKE #5  
DUKE ADULT

GAIN 60  
COMP 55  
61BPM

15CM  
64HZ



# Hockey Stick



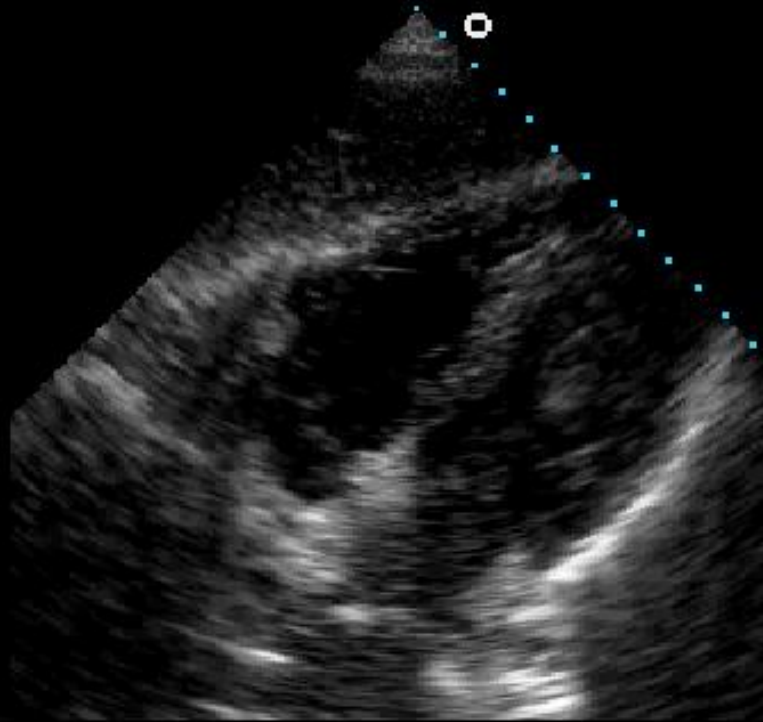
# Kissloisms

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## Stupid Echo

- Echo only phrases
  - Hockey stick mitral valve
  - Dumbbell IAS

# Hyperlipomatous IAS



# Dumbbells

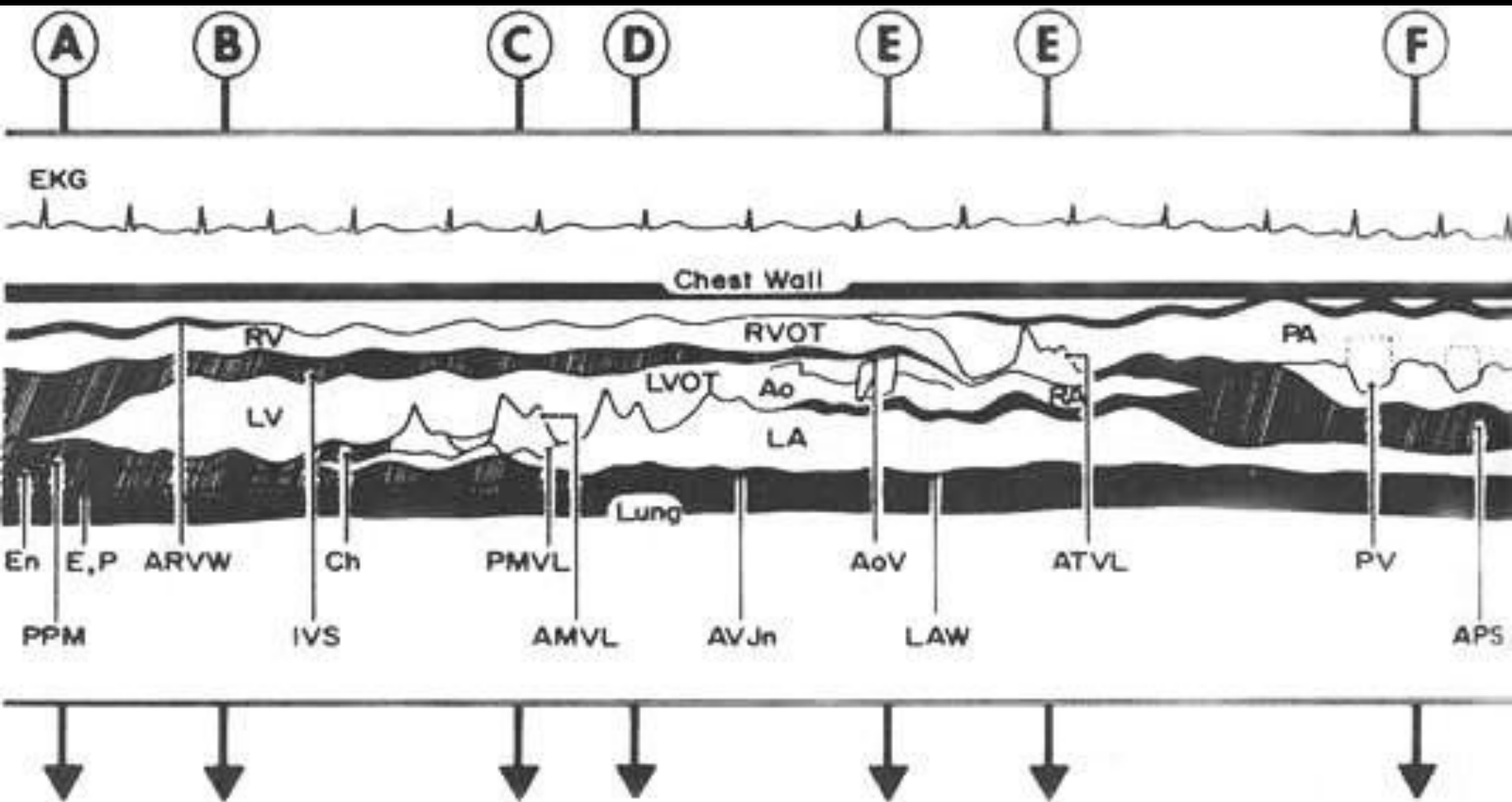


# Kissloisms

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“M-mode is useless!”

And I helped write the  
“How to measure” article

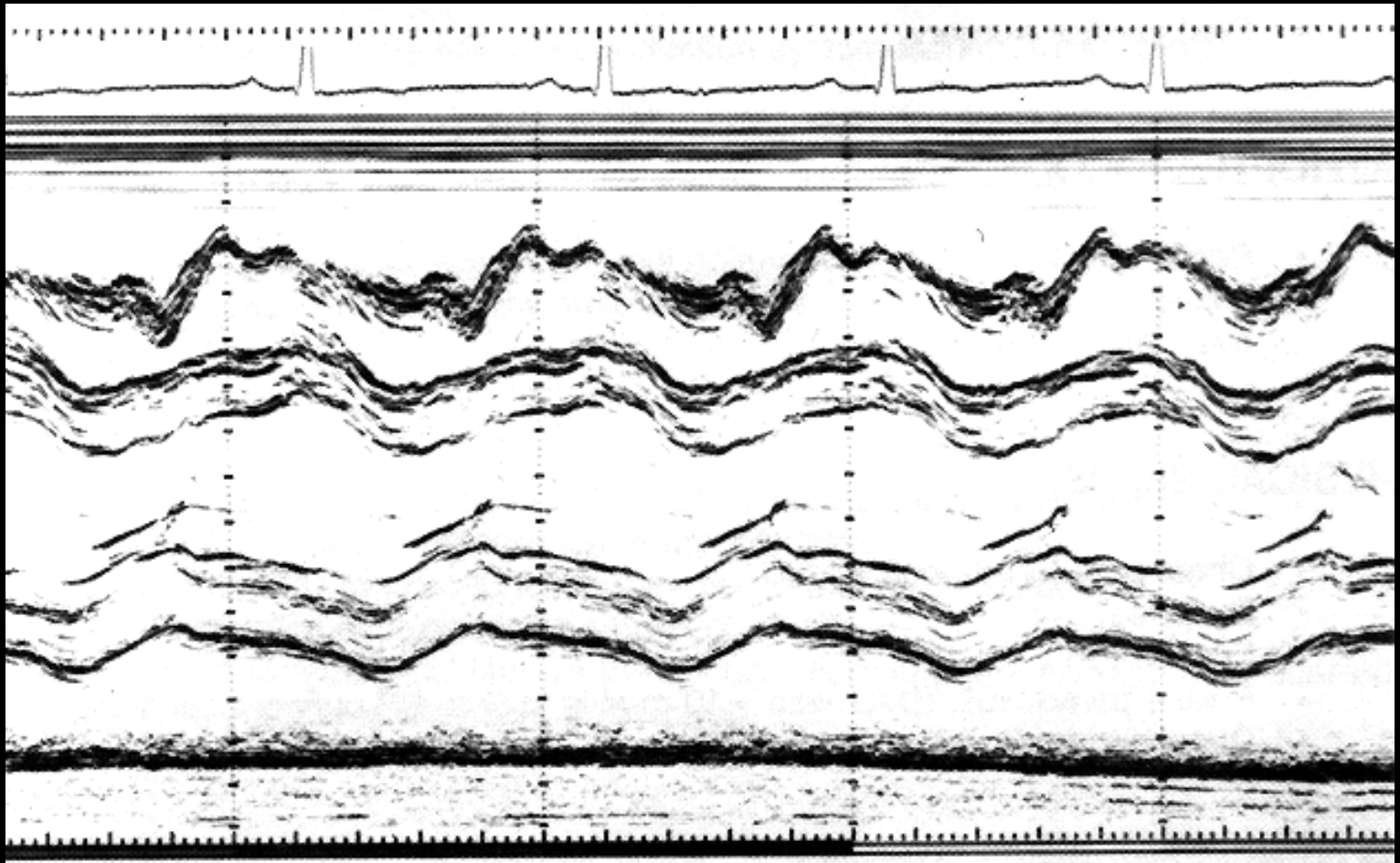


# Kissloisms

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“M-mode is useless!”

- Except it's still on the cardiology boards

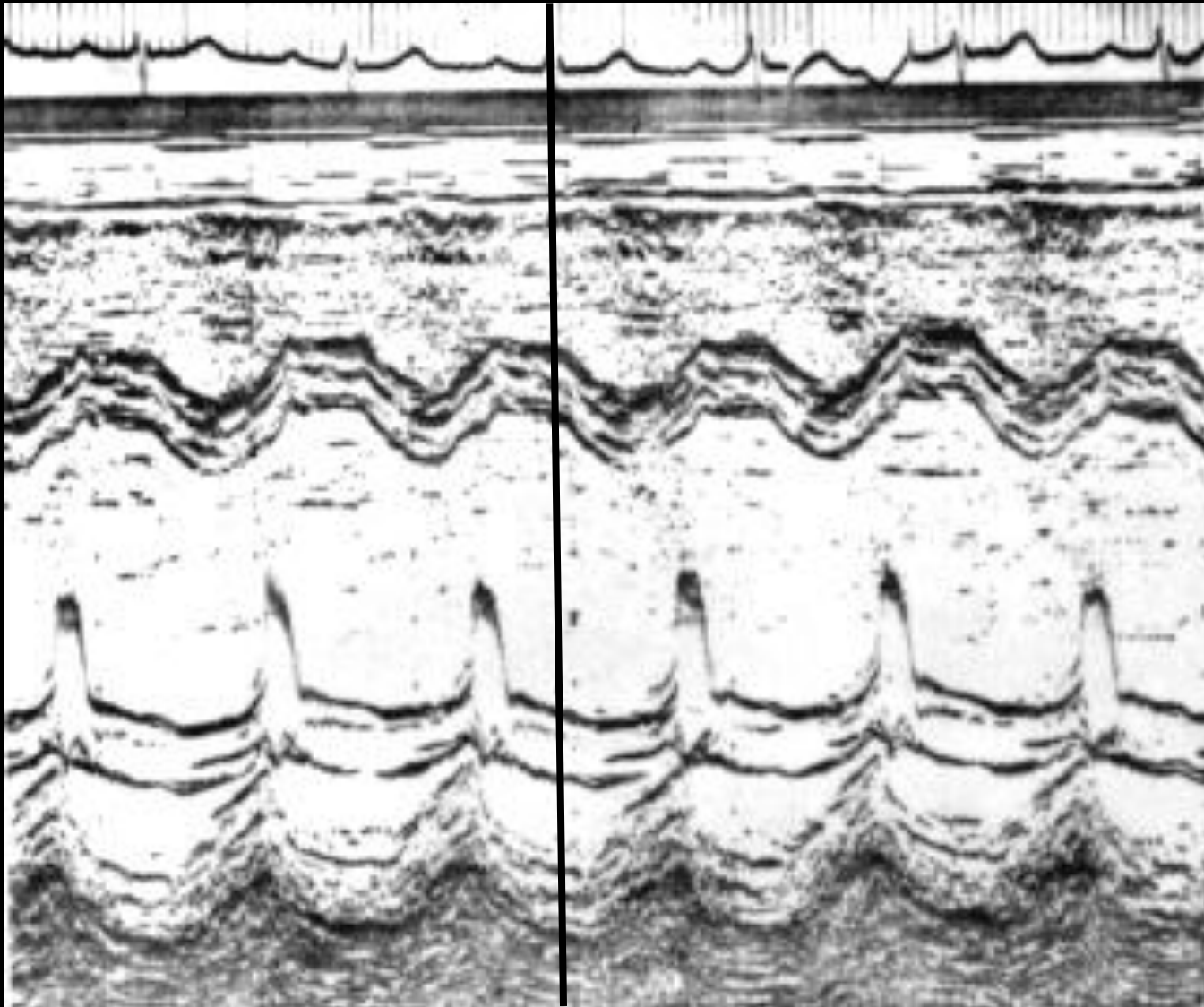


# Kissloisms

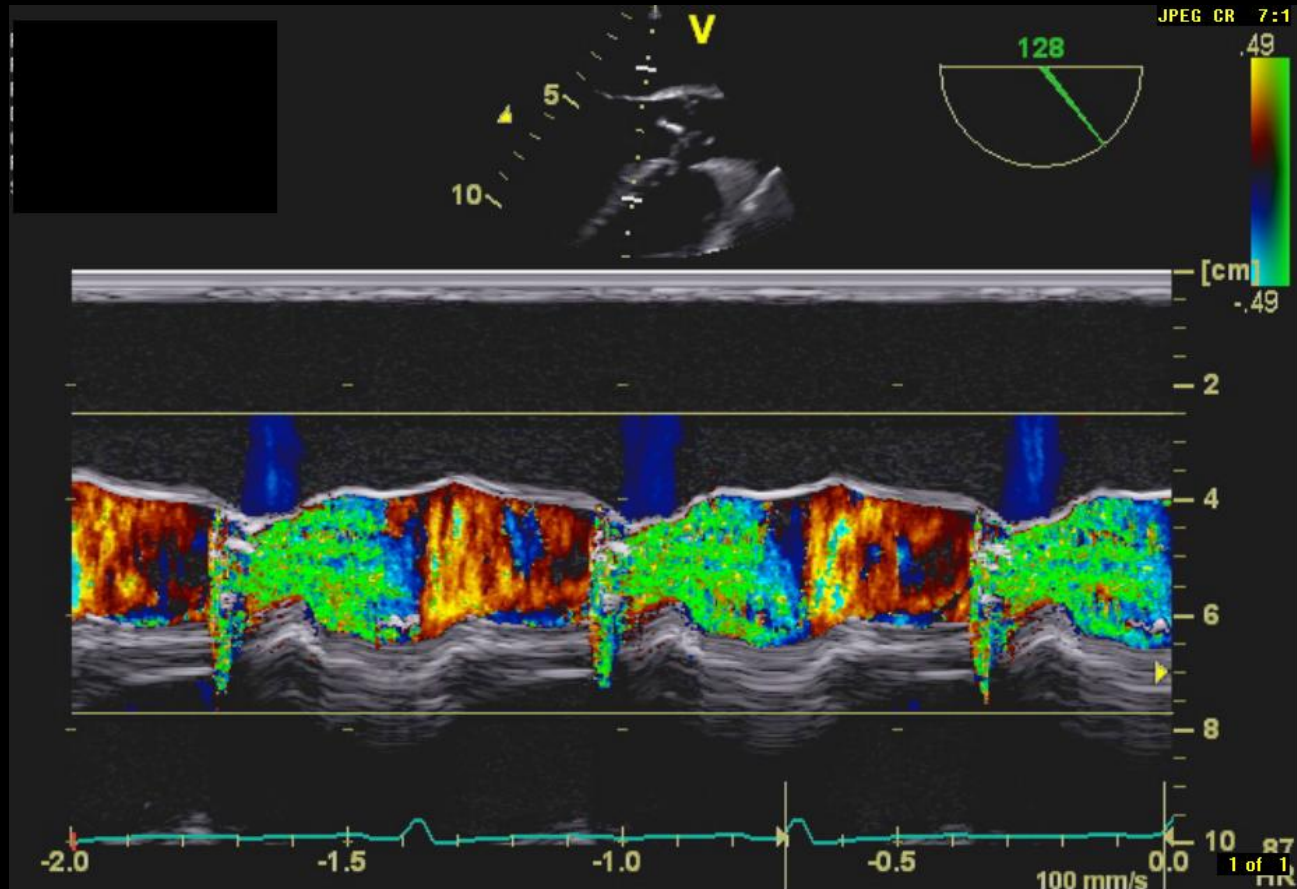
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“M-mode is useless!”

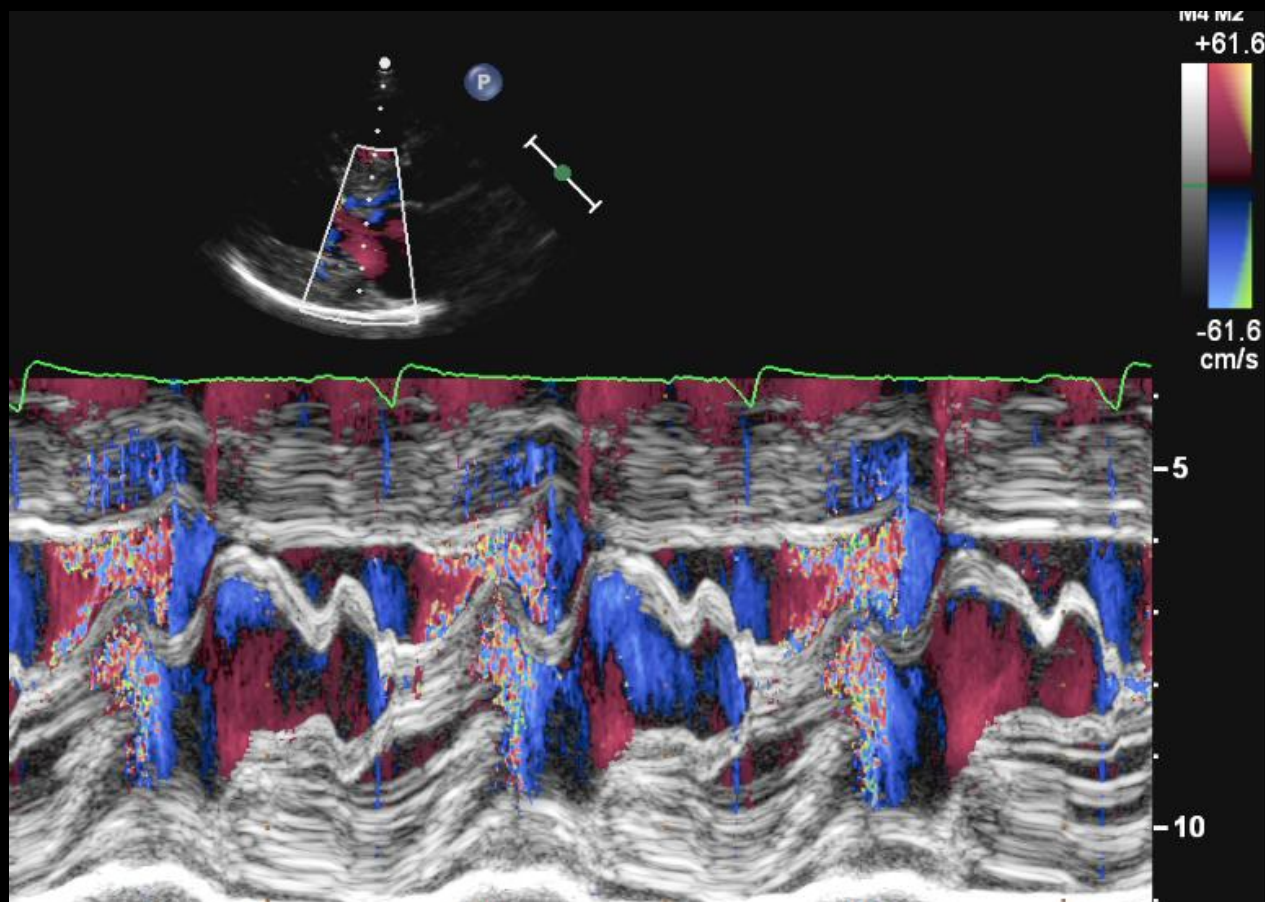
- Except it's still on the cardiology boards
- Maybe it's ok for timing purposes



# Color Doppler M-mode is pretty but still useless!



# Color Doppler M-mode useless except maybe for timing!



# Kissloisms

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- “If I’ve never confronted you then I’ve never cared about you.”

# Joe The Wizard

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*DUKE: Adams*

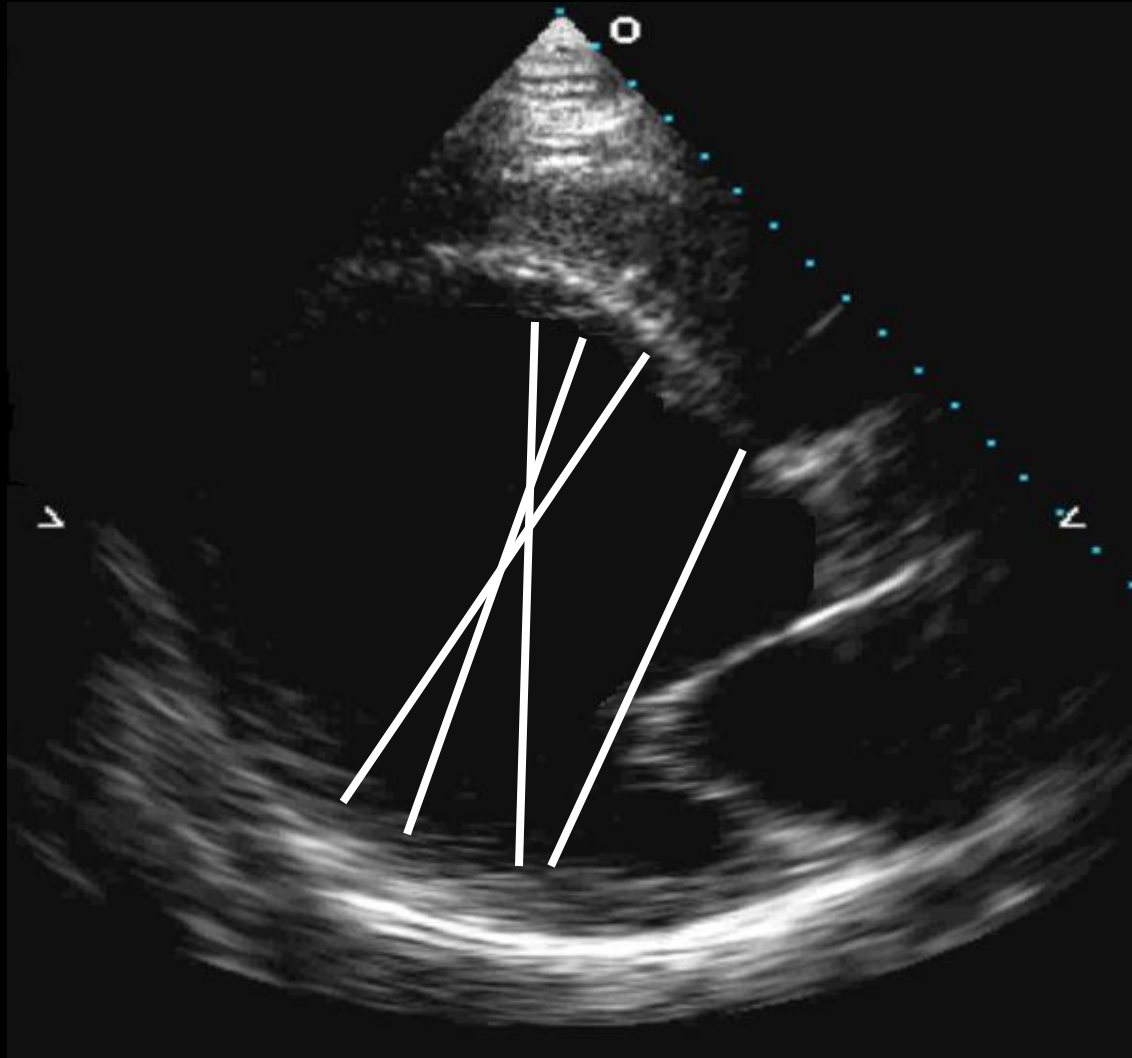
# Kissloisms

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## Stupid Echo

- Know why you are doing the echo.
- What numbers are you reporting.
- Do they make sense?
- Are you consistent?
- Are you reproducible?
- Have you checked in your lab!!!???

# Internal LV Diameters

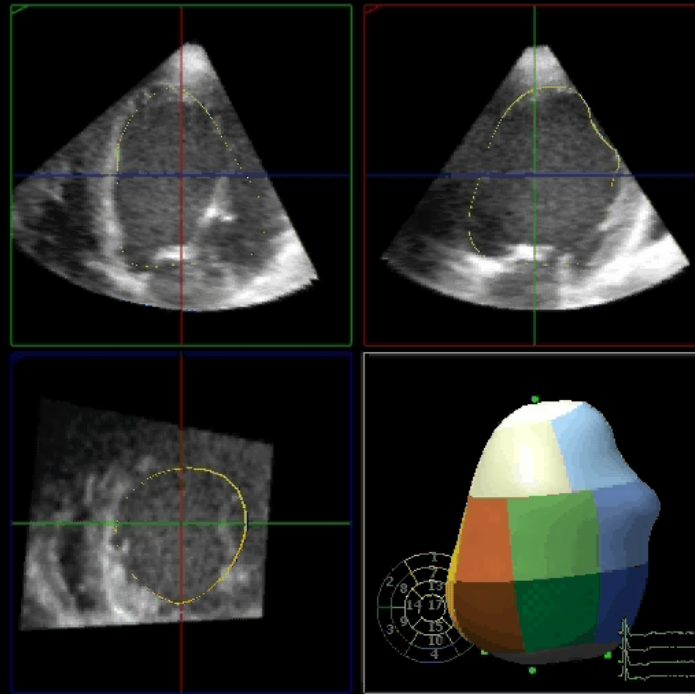


# Kissloisms

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- “If you have to measure something to call it abnormal it’s probably not.”
- “Do the measurements look correct?”

# 3D EF



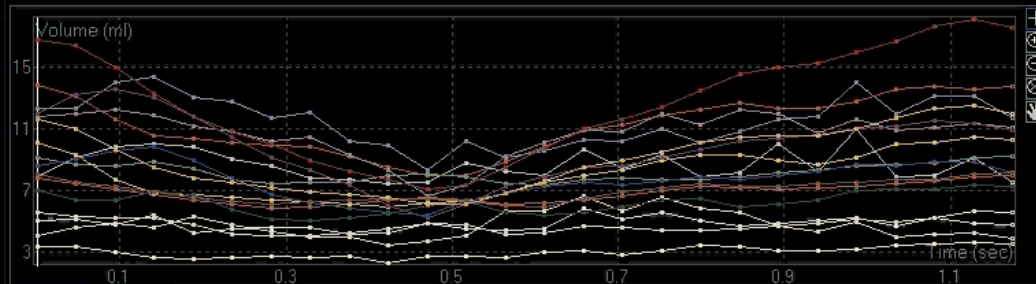
Volume(s)

EDV = 155.3 ml

ESV = 110.3 ml

Calculations(s)

EF = 29.0 %



PHILIPS Regional

DUKE: Adams

# Kissloisms

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## Stupid Echo

- Just saying MVP
  - Which leaflet segments?
  - Is it repairable?

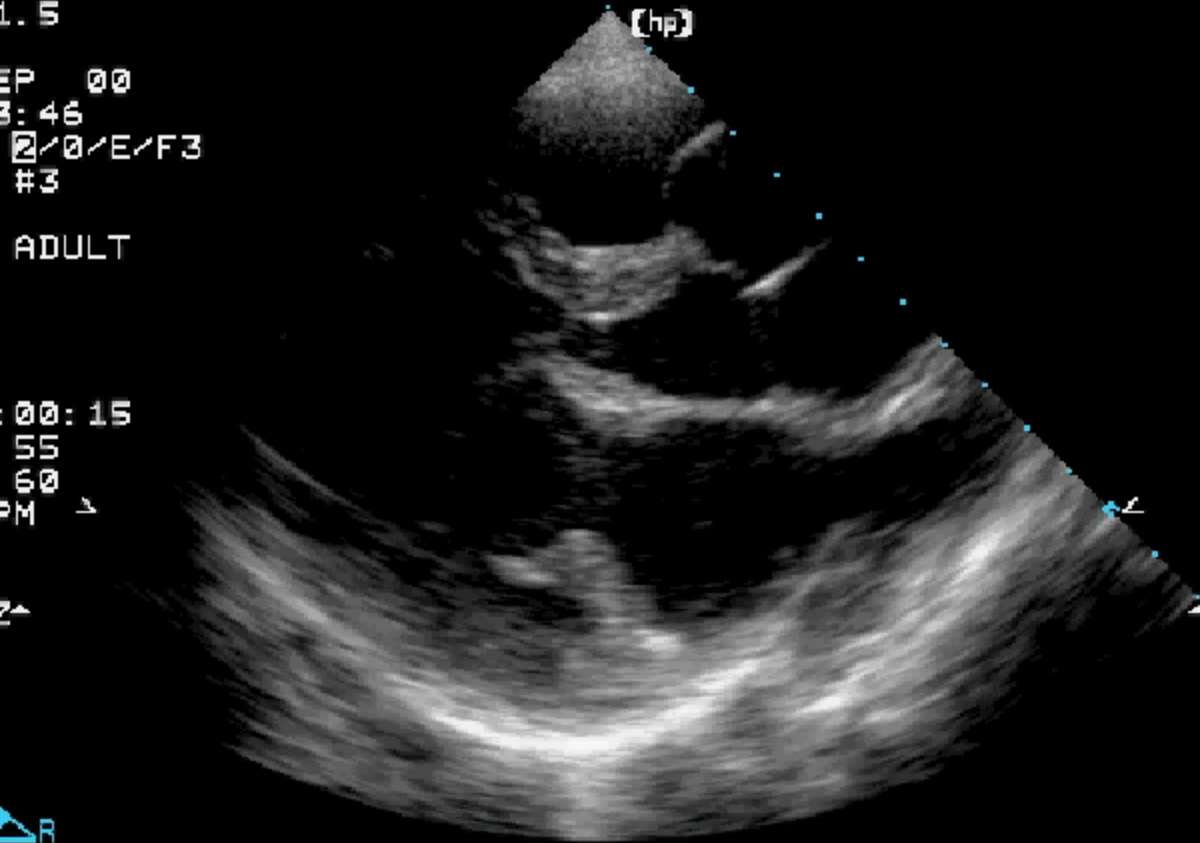
# MVP - Obvious

MI: 1.5  
S4  
19 SEP 00  
14:33:46  
PROC 2/0/E/F3  
DUMC #3

DUKE ADULT

0:00:15  
GAIN 55  
COMP 60  
61BPM

14CM  
68HZ



# Kissloisms

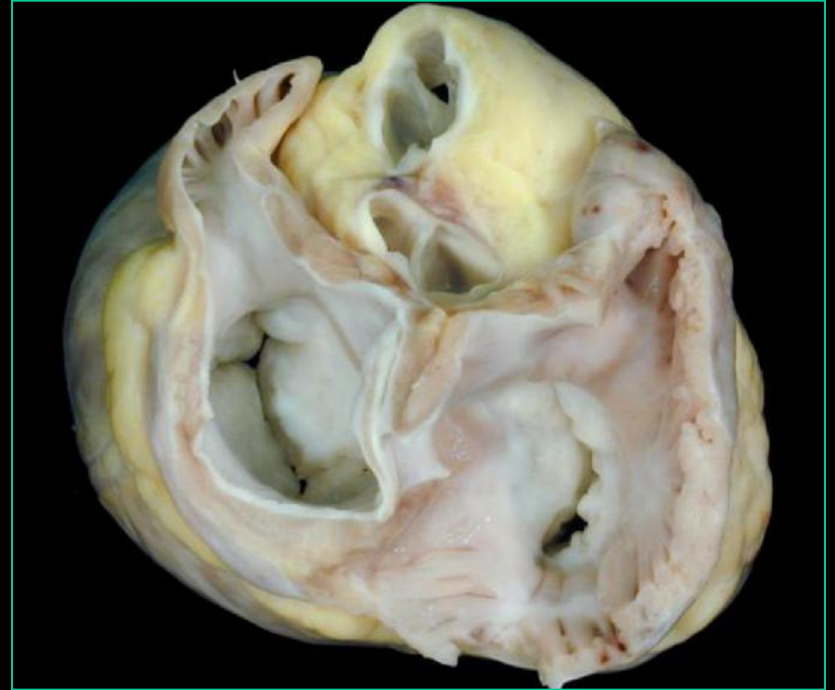
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- “It’s not the data but how the data is used.”
  - How does it affect patient care?
  - What information does the surgeon need?
  - Do you speak their language?

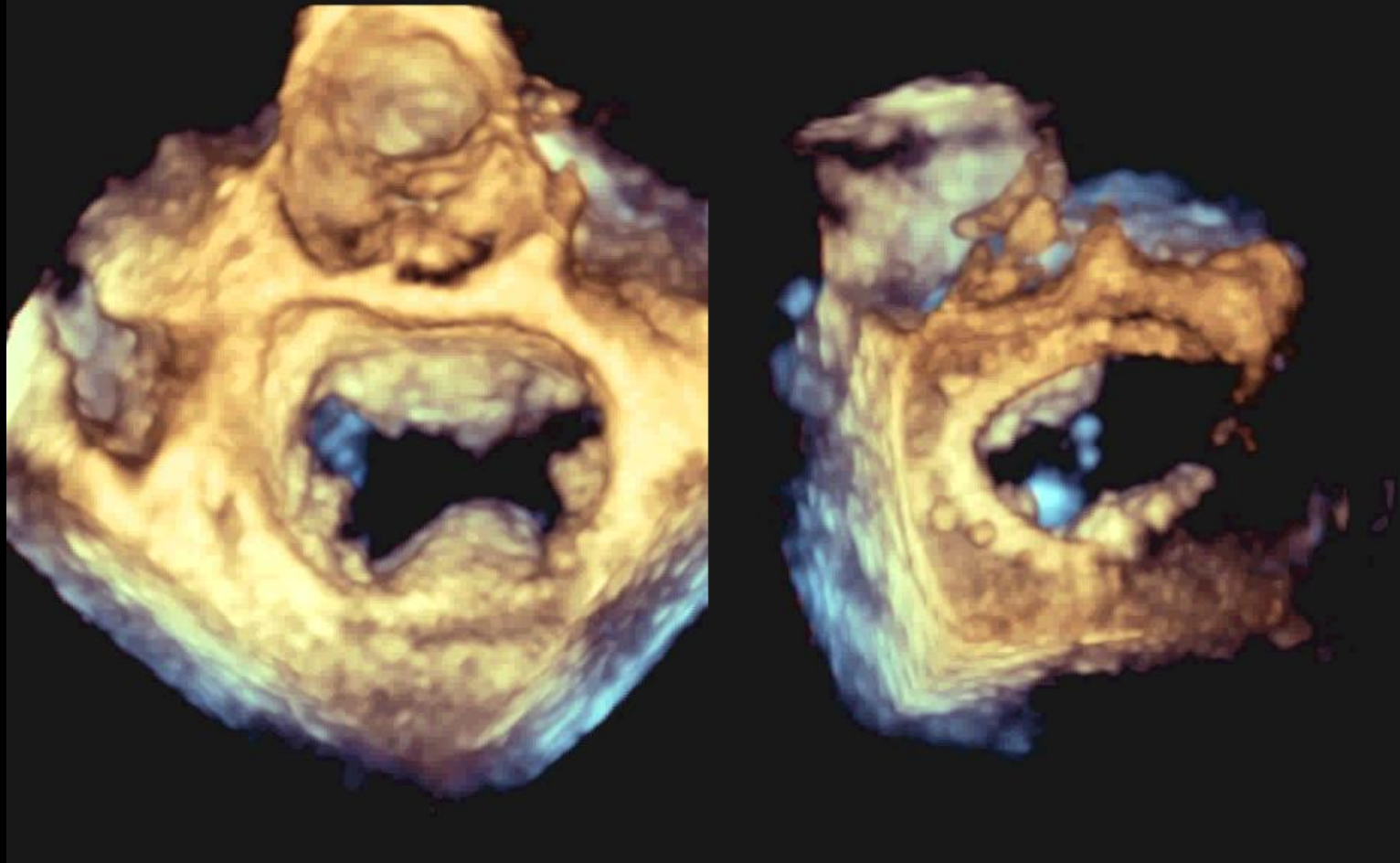
# Surgeons View



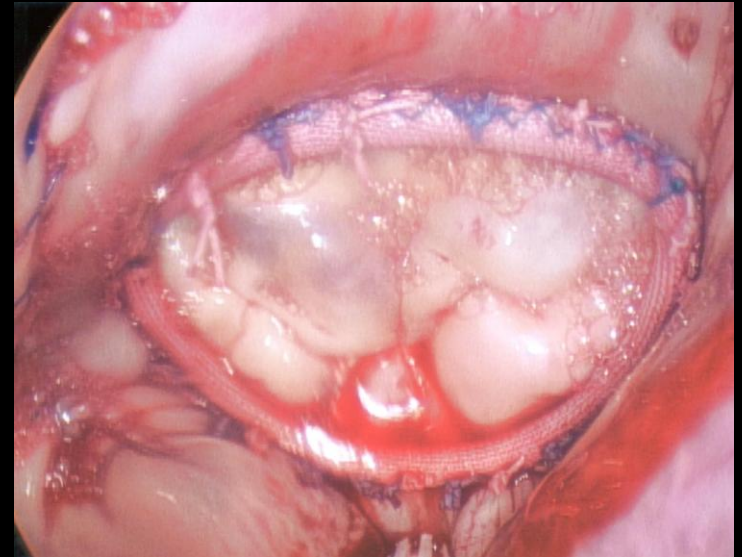
DUKE  
ECHO



# 3D TEE Pre & Post OP



# 3D TEE versus IO Heartport



# Kissloisms

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- “I was there when:”
  - a) Titanic sank
  - b) 1<sup>st</sup> 2D echo (phased array)
  - c) 1<sup>st</sup> 3D echo
  - d) all of the above
  - e) b & c

# Cardiac imaging using a phased array ultrasound system II: Clinical technique and application

Joseph Kisslo, MD, Olaf T. von Ramm, PhD, and  
Fredrick L. Thurstone, PhD

*Circulation*, 53:262-267, 1976



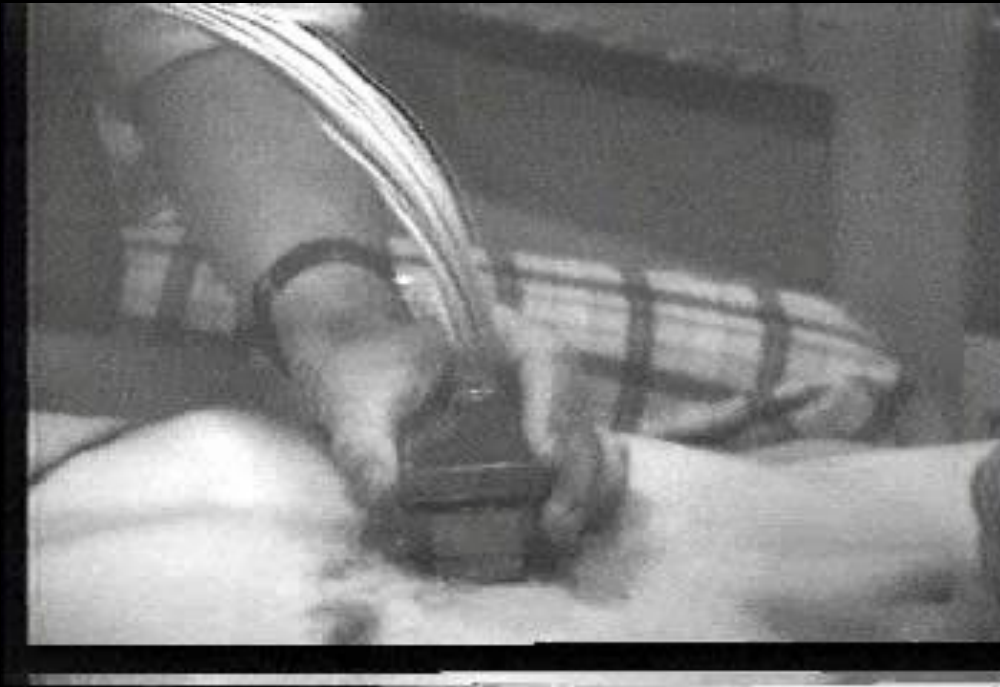
**1976**

# Real-Time Echo at Duke

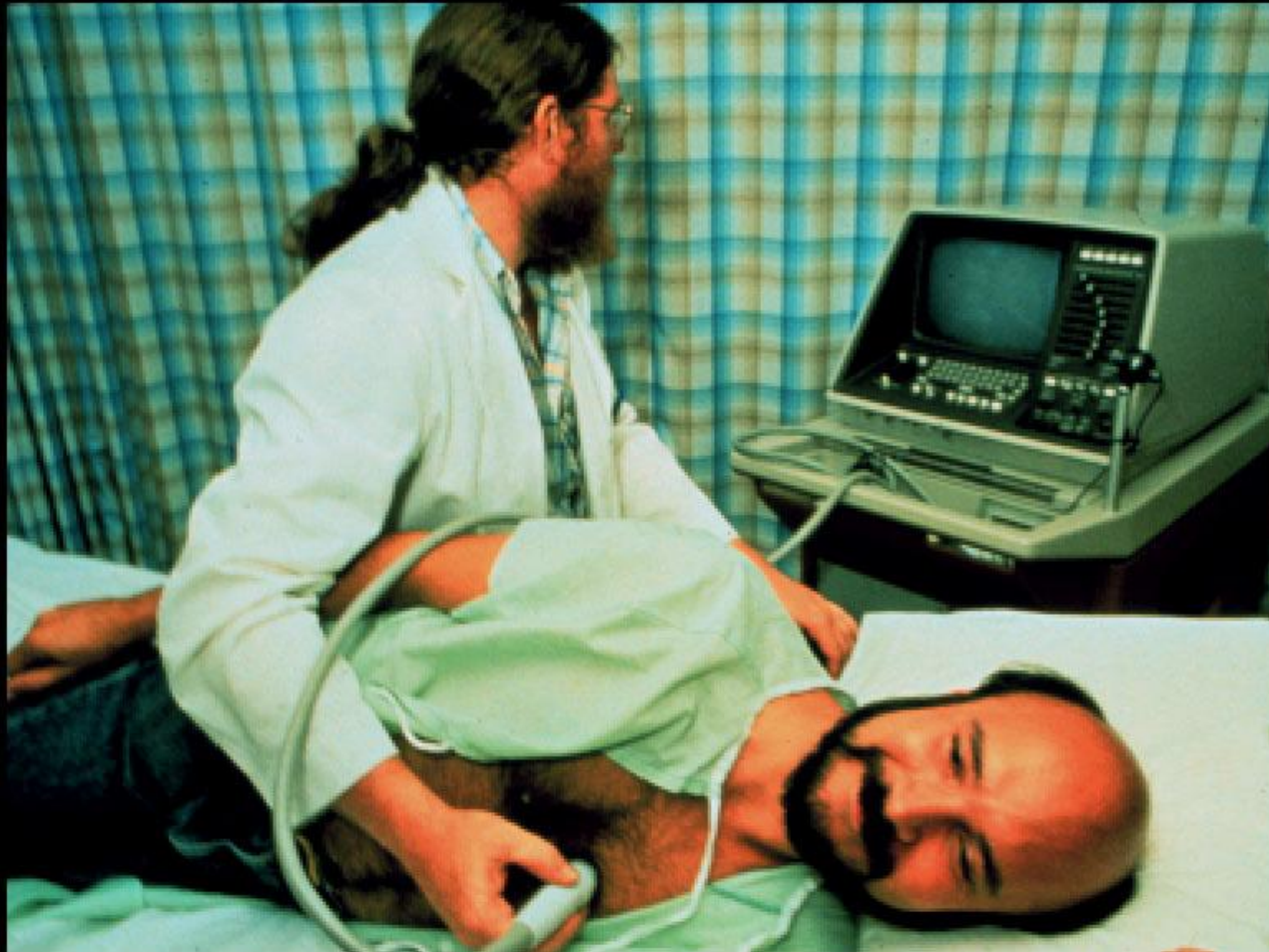
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- 1972 - Phased array
- 1980 - Parallel processing
- 1985 - Simultaneous two planes
- 1987 - 3D in phantoms
- 1991 - 3D hearts
- 1995 - Chambers and valves
- 2003 – 3D on every machine

# Joe's Pants – the 70s



# David's Shirt – the 70s



# Steve, Joe & Olaf – T2



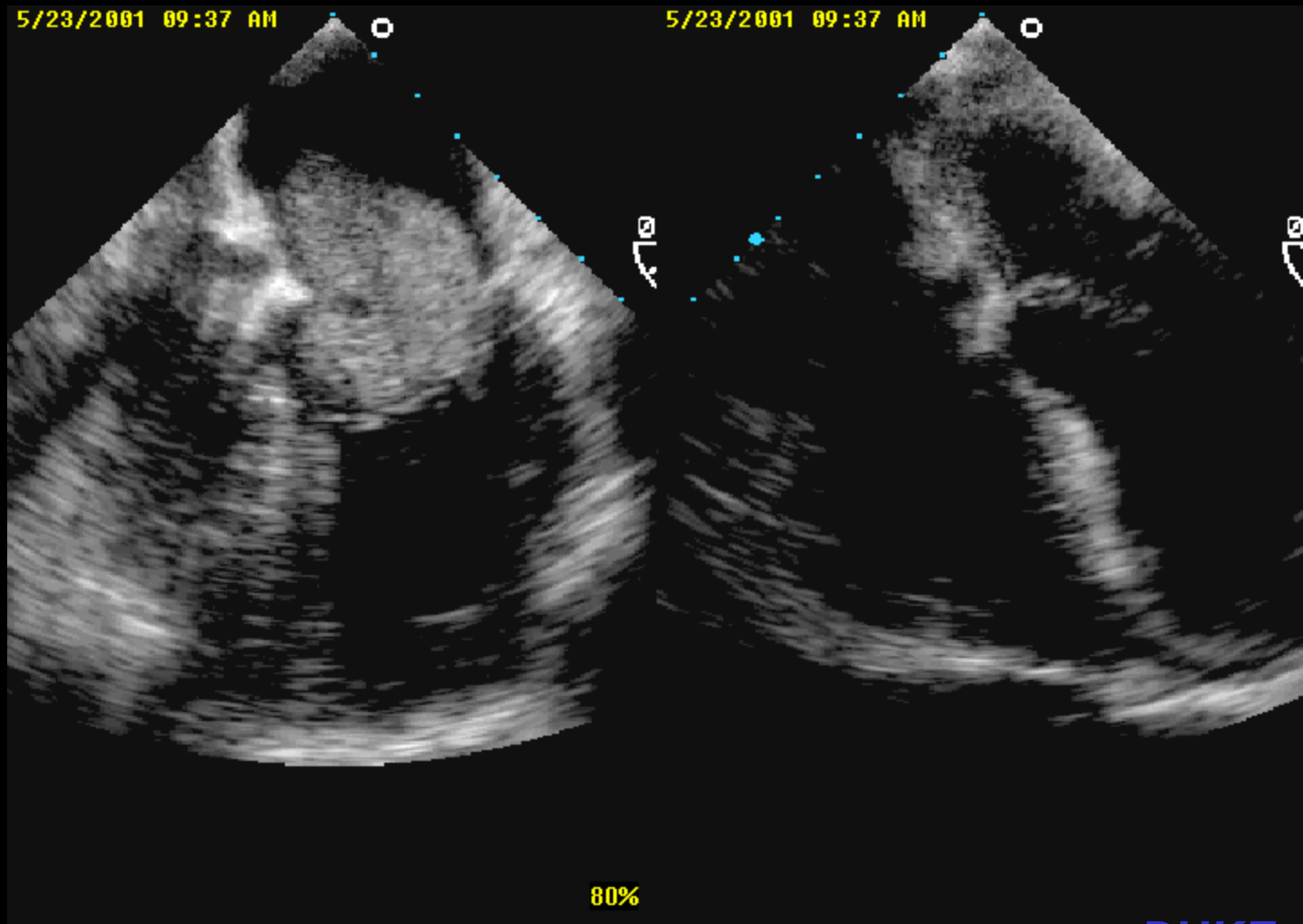
# Kissloisms

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## Stupid Echo

- It's a myxoma!!!!

# TEE LA Myxoma pre & post



# Kissloisms

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- “This is Duke. It’s not Our Holy Mother of the Immaculate Conception Hospital.”

# Kissloisms

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## Stupid Echo

- It's a myxoma!!!!
  - Know where it attaches
  - Know how the surgeon takes it out

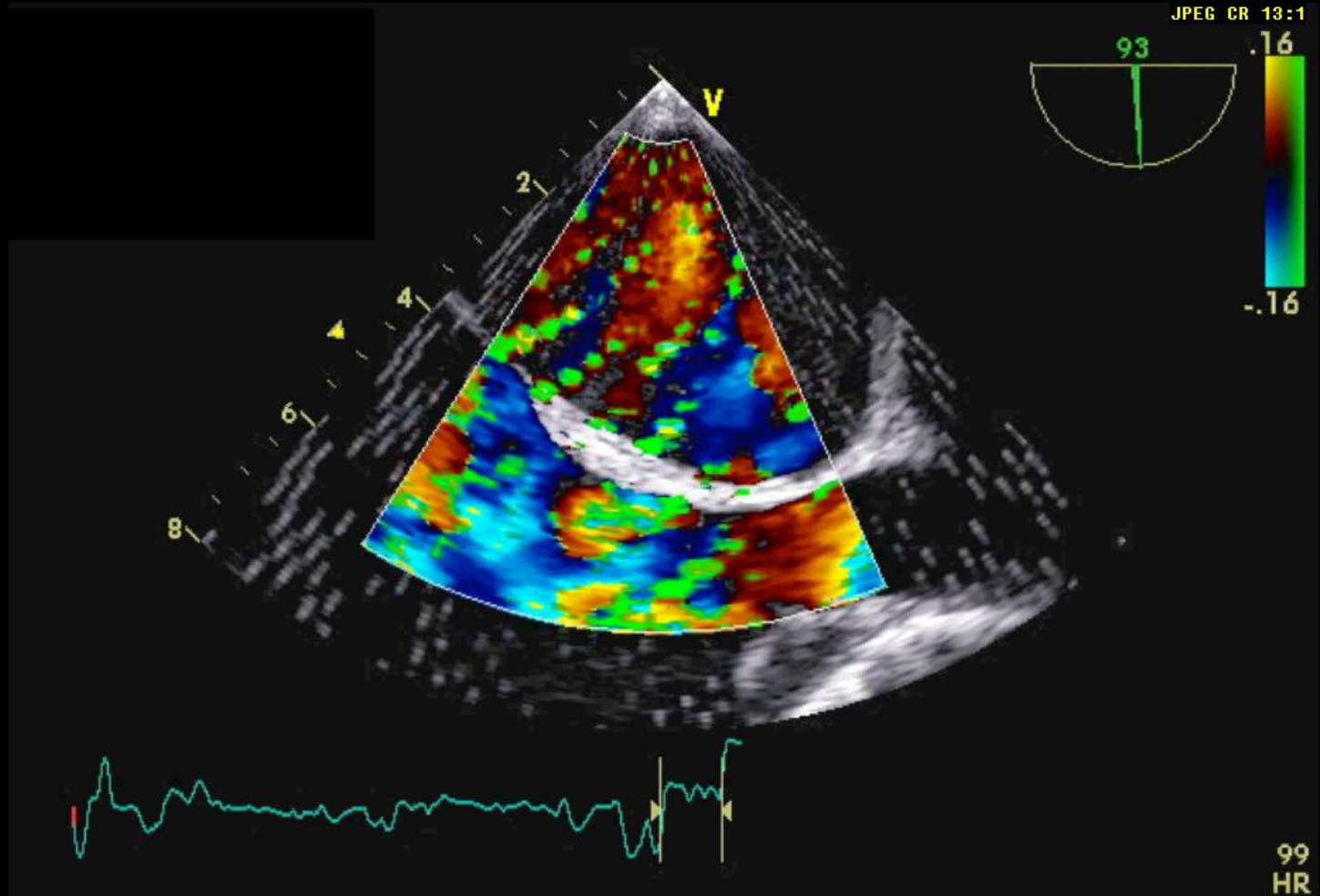
# Kissloisms

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## Stupid Echo

- Artifacts

# Artifacts



# Kissloisms

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## Stupid Echo

- Artifacts
  - Not enough just to know that something is an artifact.
  - What is the physics behind it

# Kissloisms

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- “This is Duke. It’s not Our Holy Mother of the Immaculate Conception Hospital.”

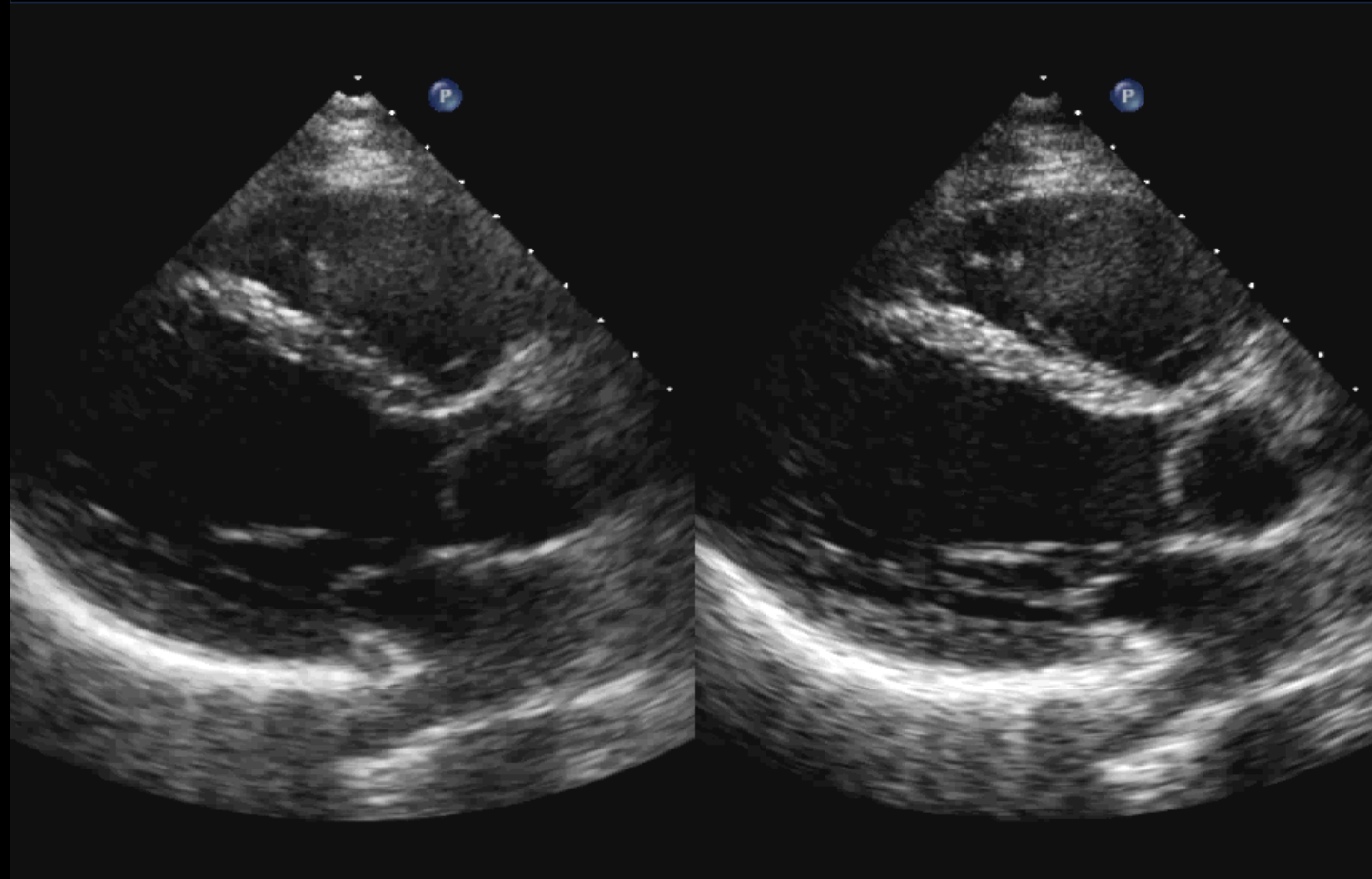
# Kissloisms

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## Stupid Echo

- Harmonics
  - Know how it affects your image
  - Turn off for evaluating valves

# Fund. Versus Harmonics



# Kissloisms

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- “The ridge of...”
- “The valve of...”

# Morgagni



JO. BAPTISTÆ  
**MORGAGNI**

P. P. P. P.  
 DE SEDIBUS, ET CAUSIS  
**MORBORUM**  
 PER ANATOMEN INDAGATIS

LIBRI QVINQUE.  
 DIRECTORIBUS, ET ADMINISTRANDIS, HUIUS PRIMUM SÆCULI  
 ACADEMIÆ TYPICÆ PATRIARCHEI HUMANÆ, MEDICINÆ,  
 ET CHIRURGICÆ VENETICÆ

Multiplex præfixus est Index rerum, & nominum  
 accuratissimus.

**TOMUS PRIMUS**  
 DUOS PRIORES CONTINENS LIBROS



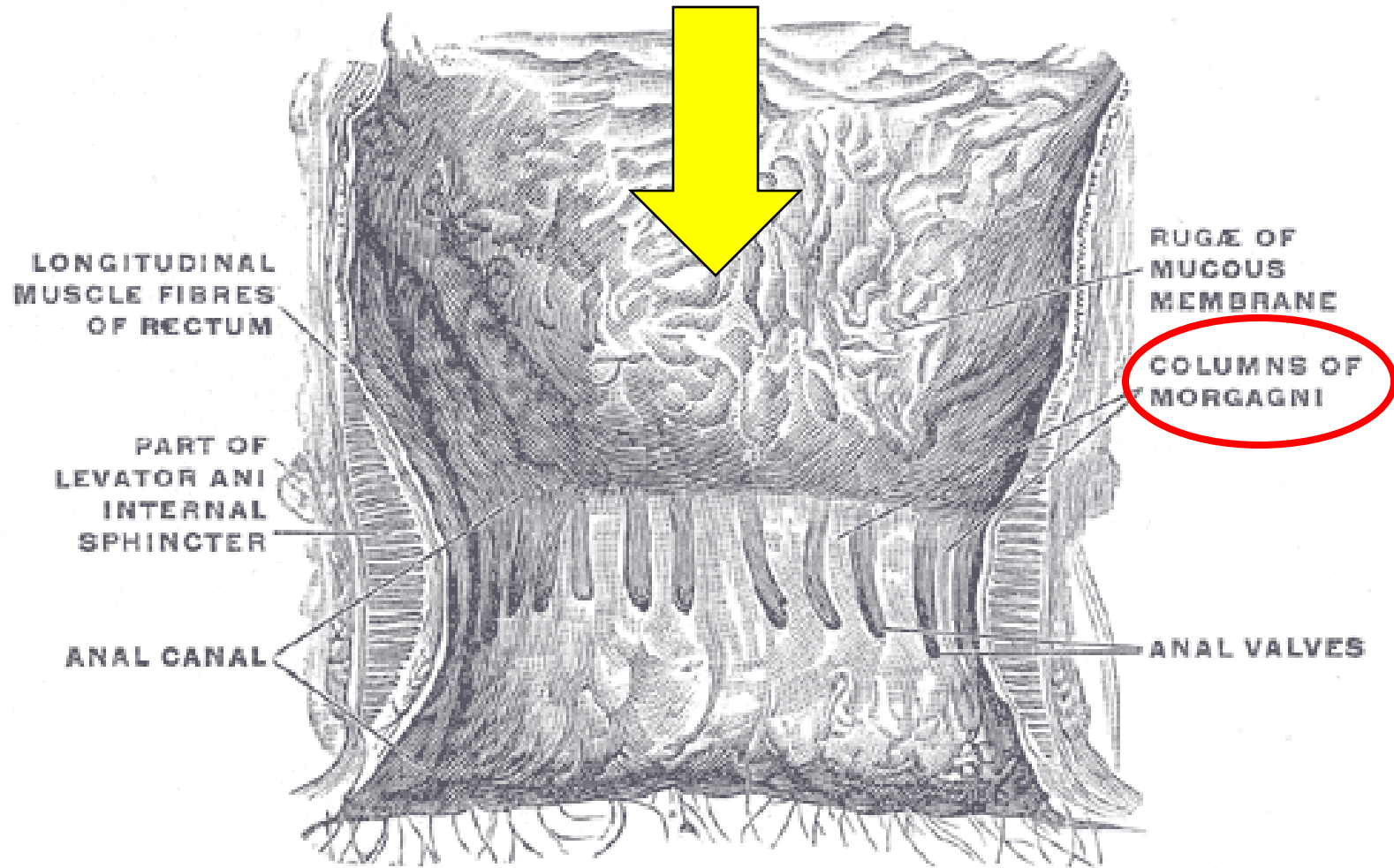
**VENETIIS,**  
 MDCCXLI

IN TYPOGRAPHIA KAMBERGERIANA  
 SUPERIORUM PERMISSO, AC PRIVILEGIO.

## **Morgagni, Giovanni Battista**

**1682—1771**, Italian anatomist, called the founder of pathologic anatomy.

He was professor of anatomy at Padua for 56 years. He discovered many relationships between diseases and physiological changes.



# Joe Kisslo, MD

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# Joe Kisslo, MD

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- Passionate
- Cares that you know not just how to do an echo but why.
- Are we doing the right thing for our patients?

# Joe Kisslo, MD

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- Cares about his stenographers.
- Doesn't want them to be "mindless button pushers".
- Married one.

Behind every  
successful man

is a surprised woman!



*DUKE: Adams*

# If Joe wrote greeting cards



Thanks to the  
Duke Echo Lab

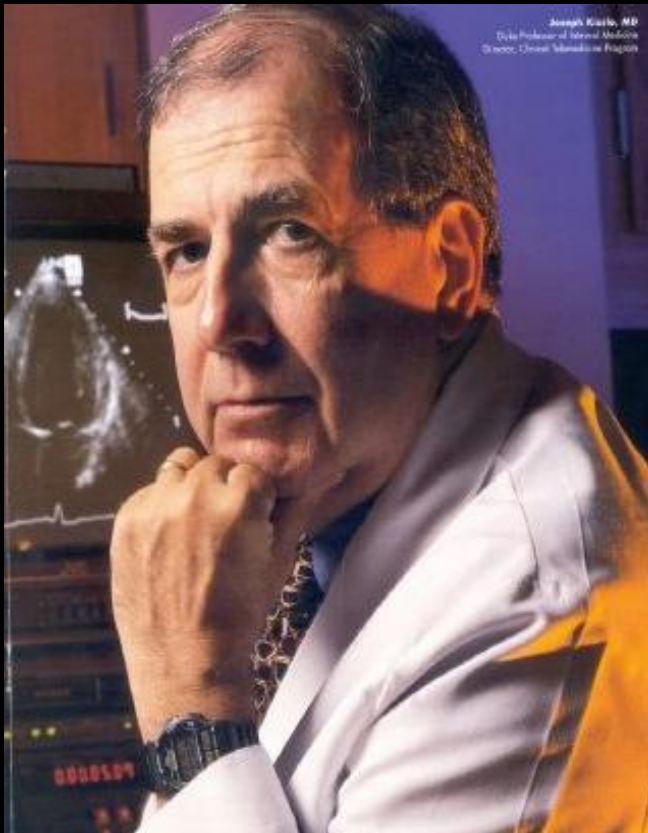
# 2010



*DUKE: Adams*

# Joe Kisslo, MD

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**"I came to Duke thinking I would have opportunity to meet and interact with the brightest people in the world. I underestimated Duke."  
Joe Kisslo, MD**



# The End



*DUKE: Adams*