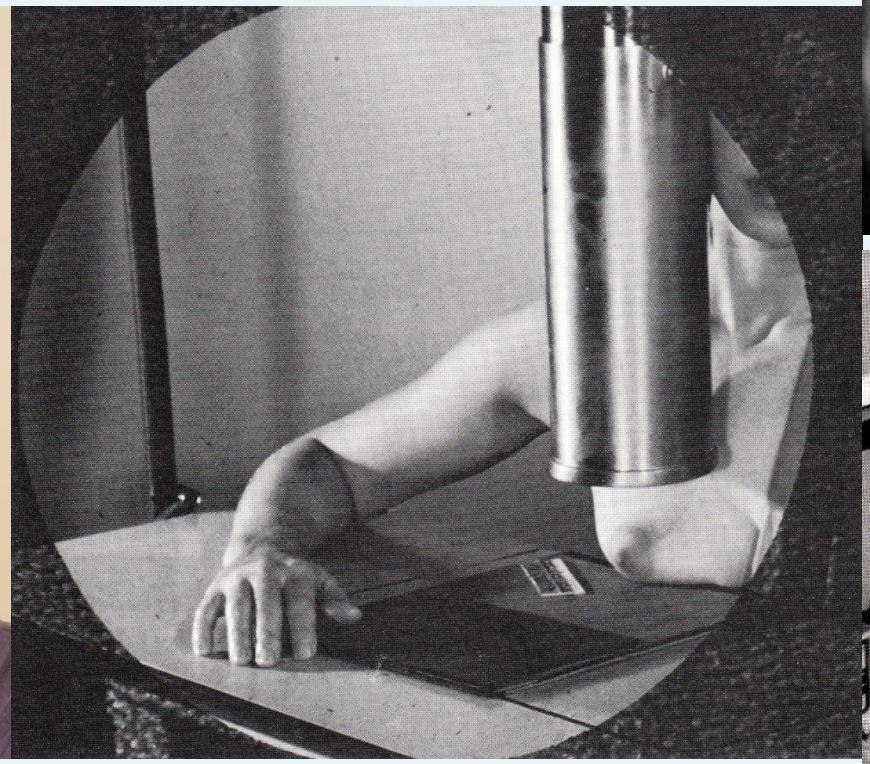
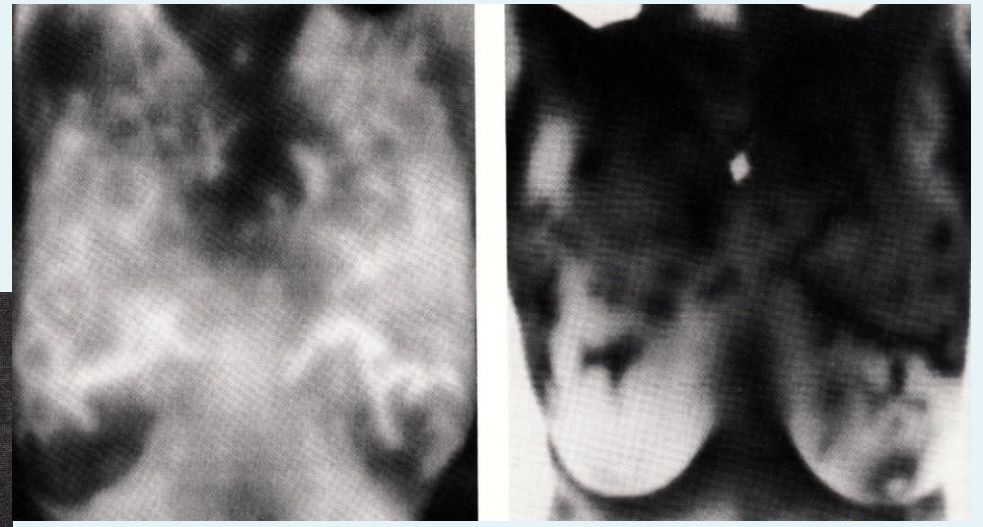
A mintavételi technika fejlődése

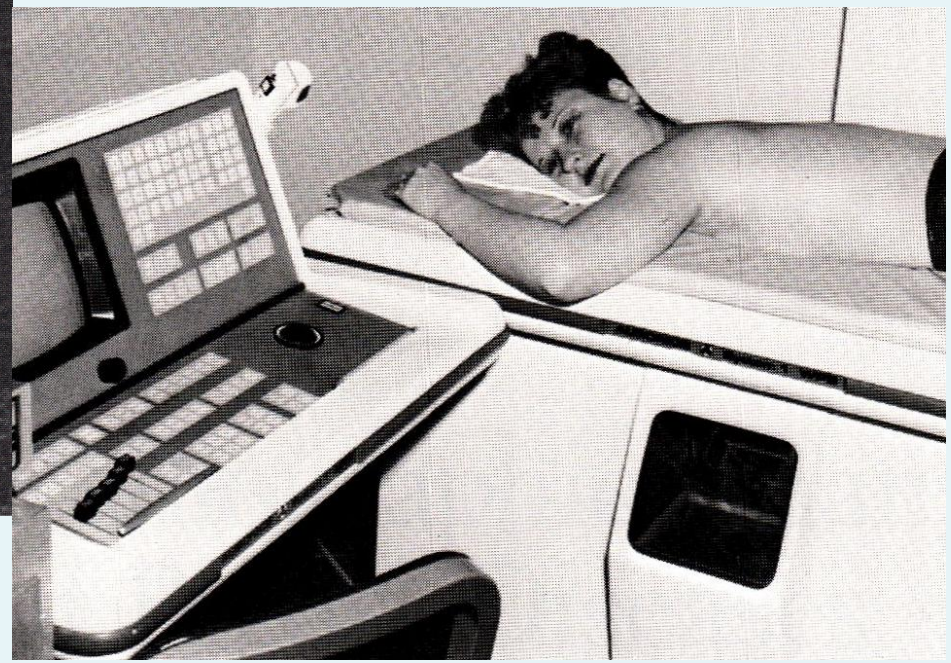
Szabó Endre

MaMMa Zrt – Kapás utca

Fejlődés minden téren:







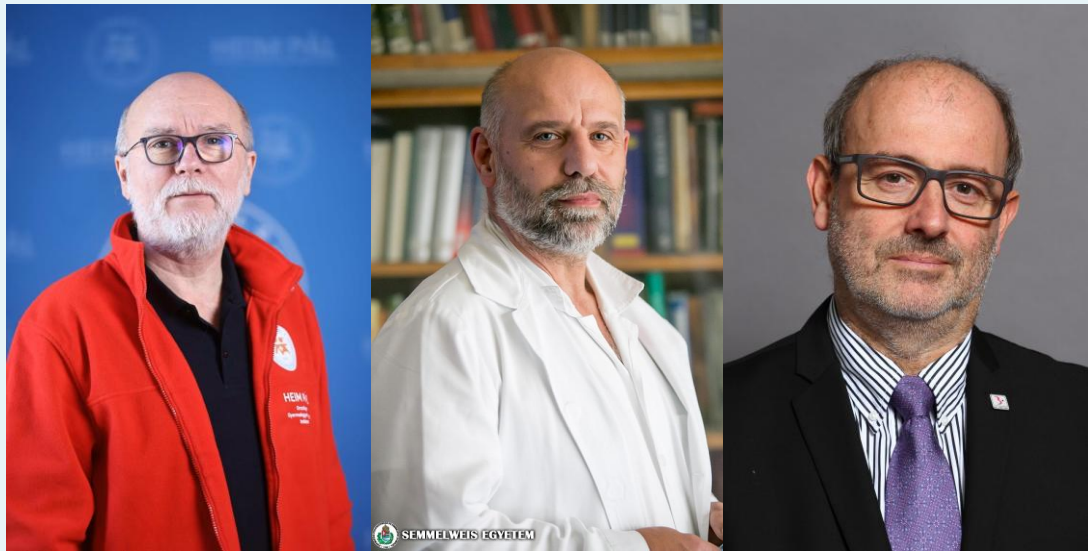
A társszakmáknak is volt honnan fejlődni..

„Mit kíván a magyar nemzet? Magyar - nemzeti - hip-hop - rappet” Bëlga

Sebész – emlő eltávolító/megtartó/OPS

Onkológus – neoadjuváns kemobiohormon terápia, BSC

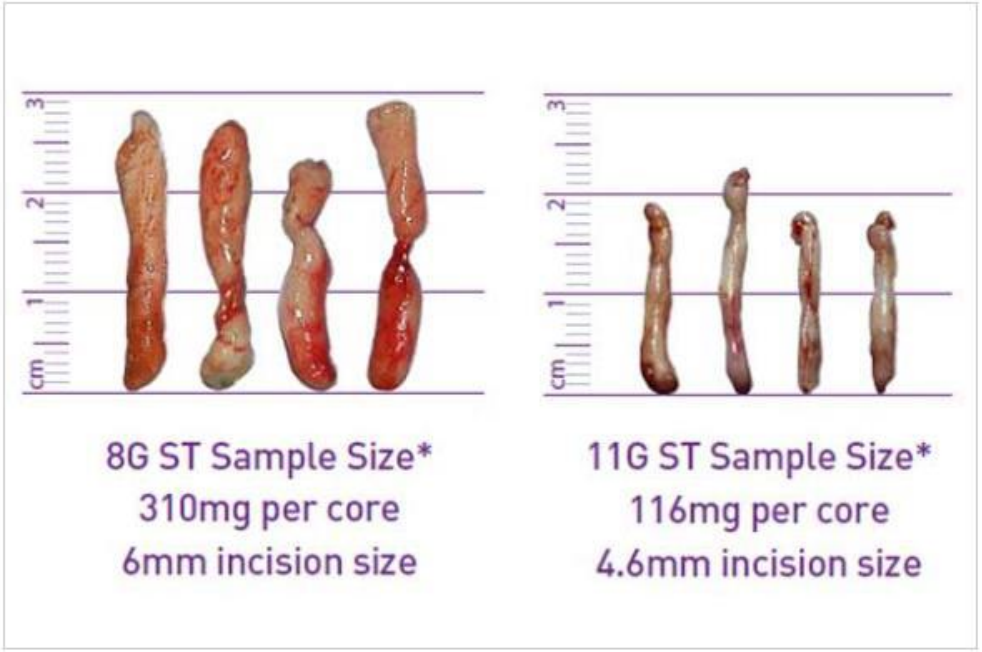
Pathológus – milyen mintából, mire tud válaszolni



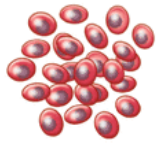
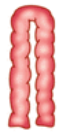
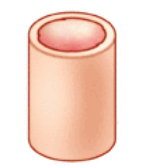
„A méret a lényeg” Kulka J

Mammotome

PROCEDURES	PRODUCTS



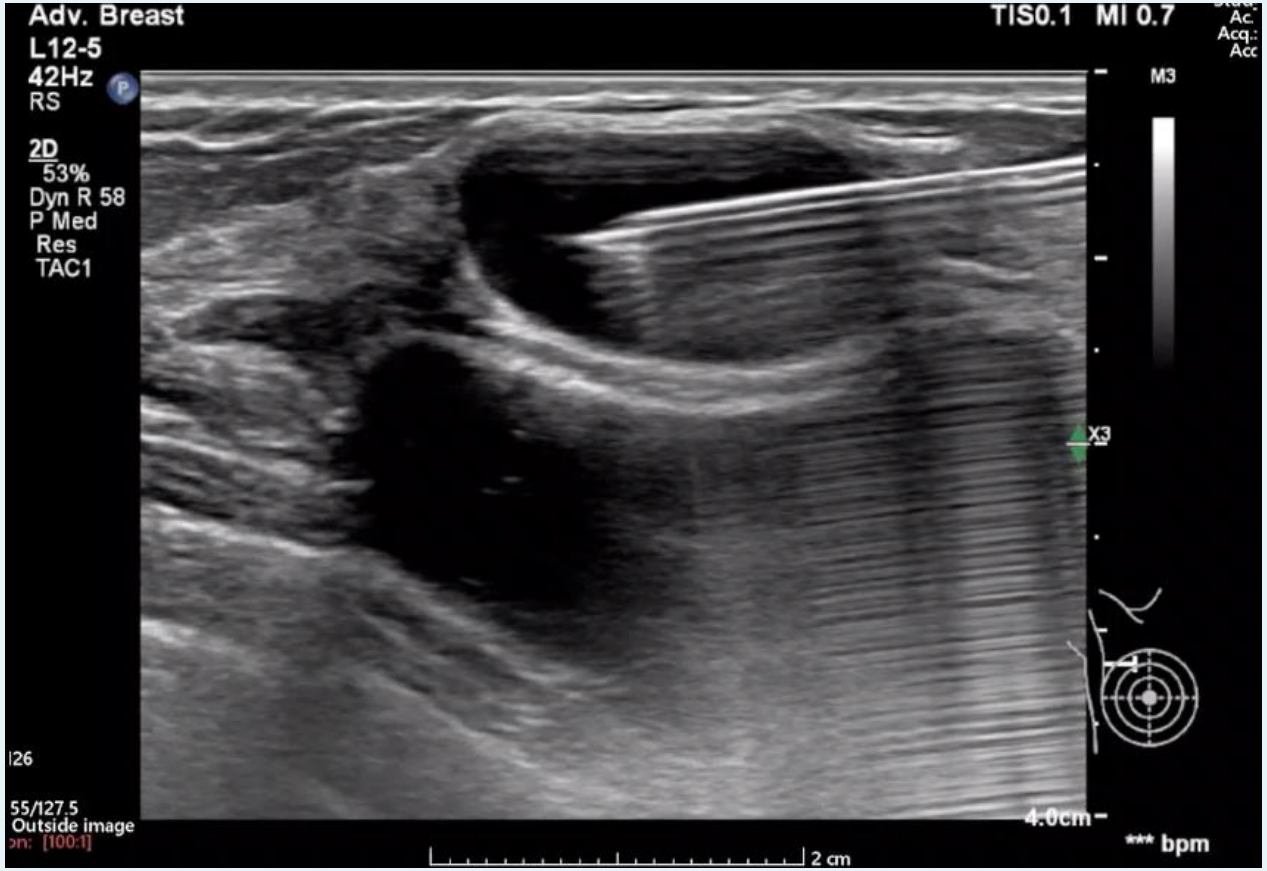
TYPES OF NEEDLE BIOPSIES

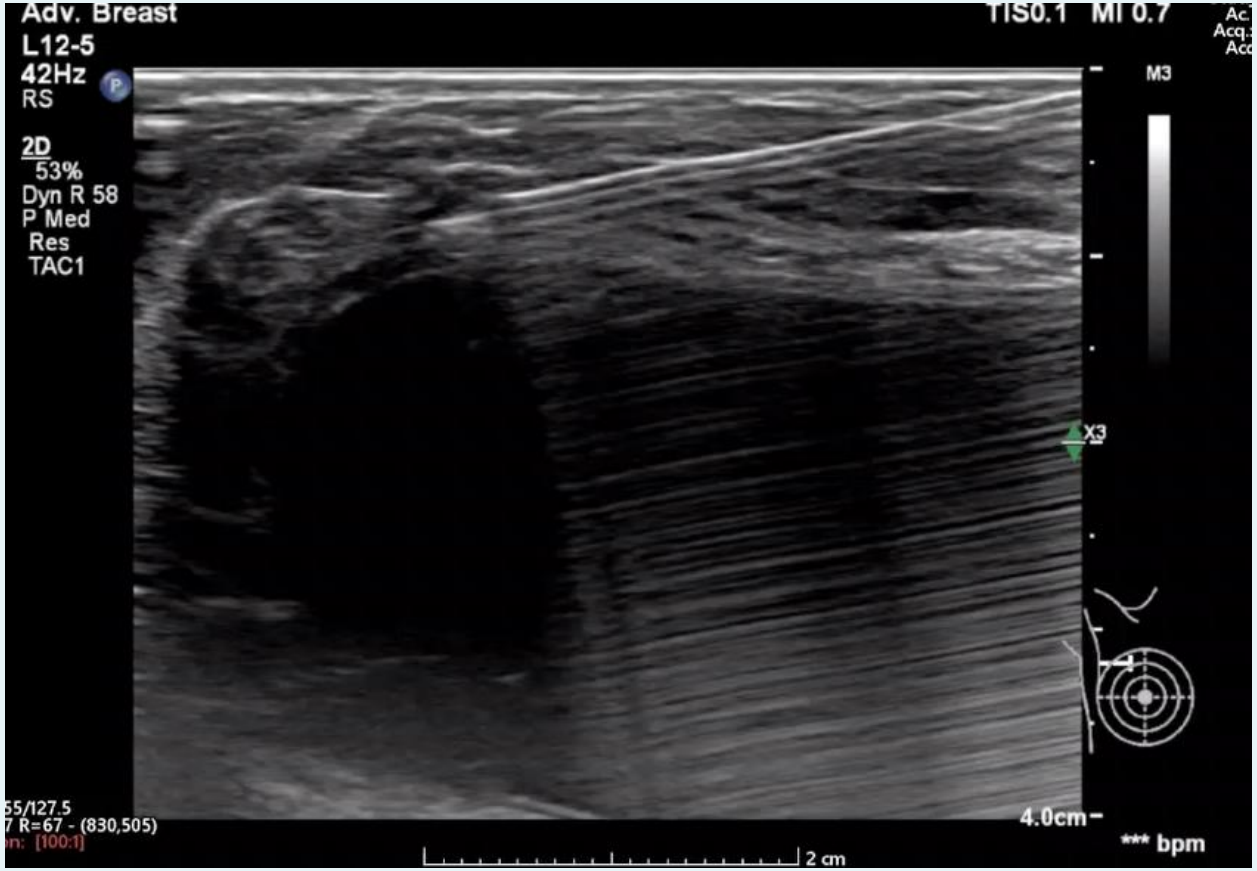
Type of needle biopsy	Shape of specimen	Comments
Fine needle aspiration		Single cell aspiration does not distinguish in situ carcinoma from invasive carcinoma. Best technique to document lymph node metastases prior to neoadjuvant treatment.
Core		Standard cutting technique for breast lesions. Requires multiple passes.
Cryobiopsy		Freezes tissue potentially introducing morphologic artifacts and altering biomolecules.
Vacuum-assisted core		Removes large cores of tissue with only one needle insertion.
Intact		Heats tissue potentially introducing morphologic artifacts and potentially altering biomolecules.
Very large core		Removes a large amount of benign tissue including subcutaneous tissue – cosmetic results may be poor and complication rate higher.

FTAB

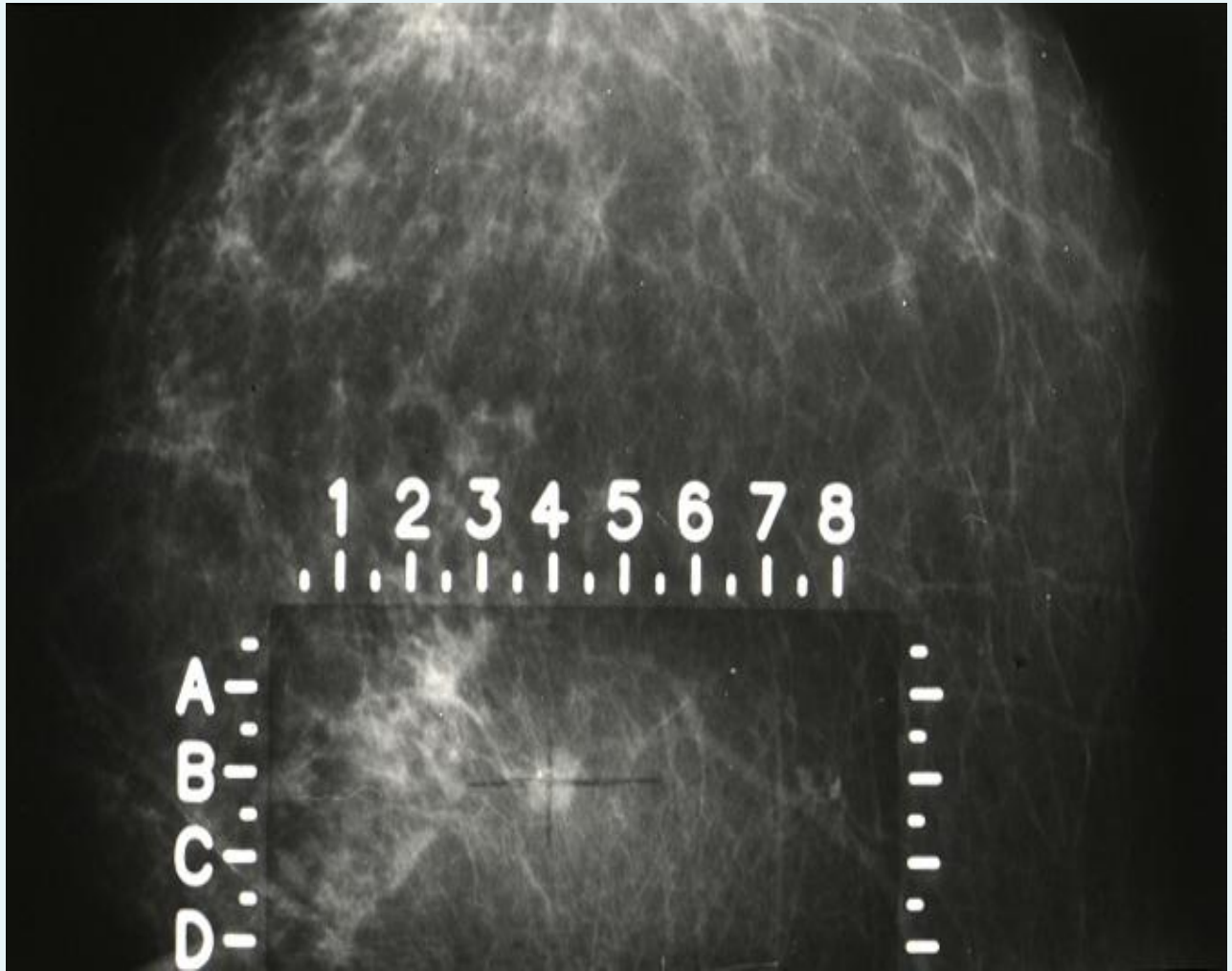
Ormándi Katalintól

Aspiráció vékony tűvel

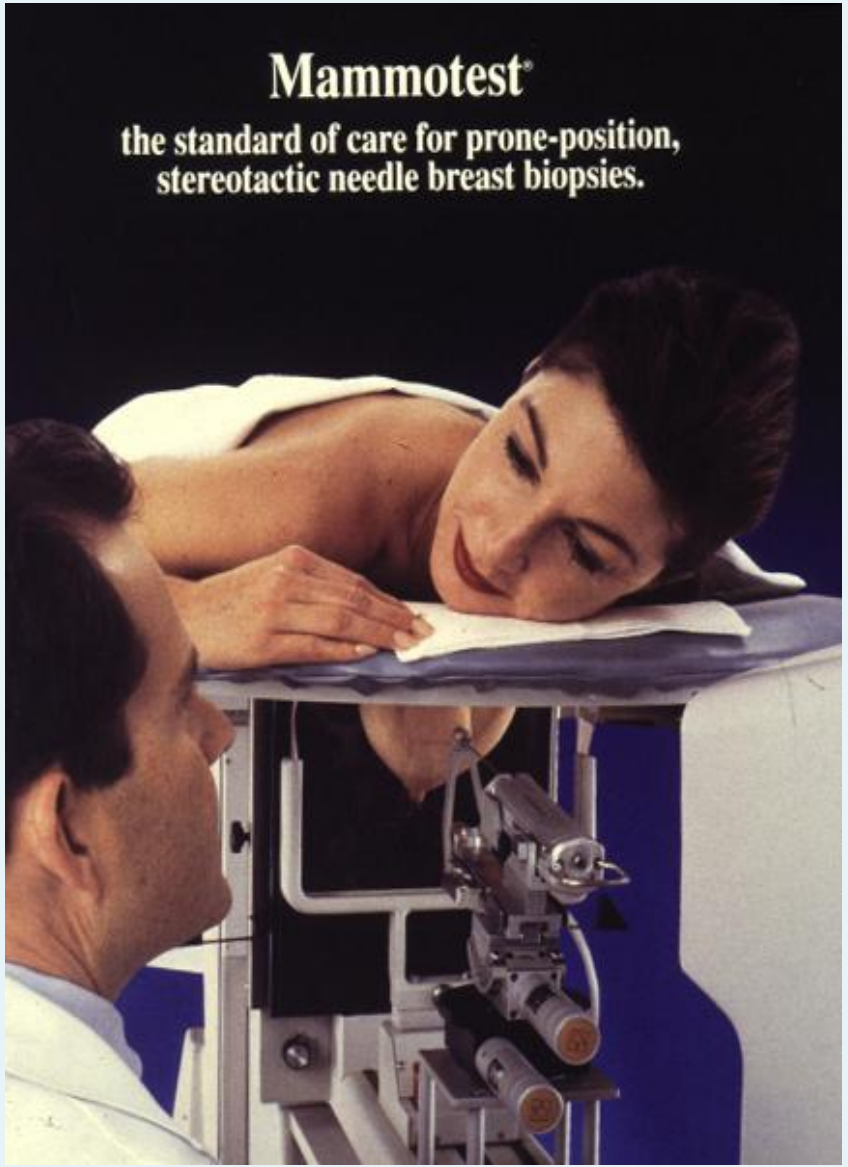




Biopszia – 2D RTG vezérelt lyukas ill. vektorlemez

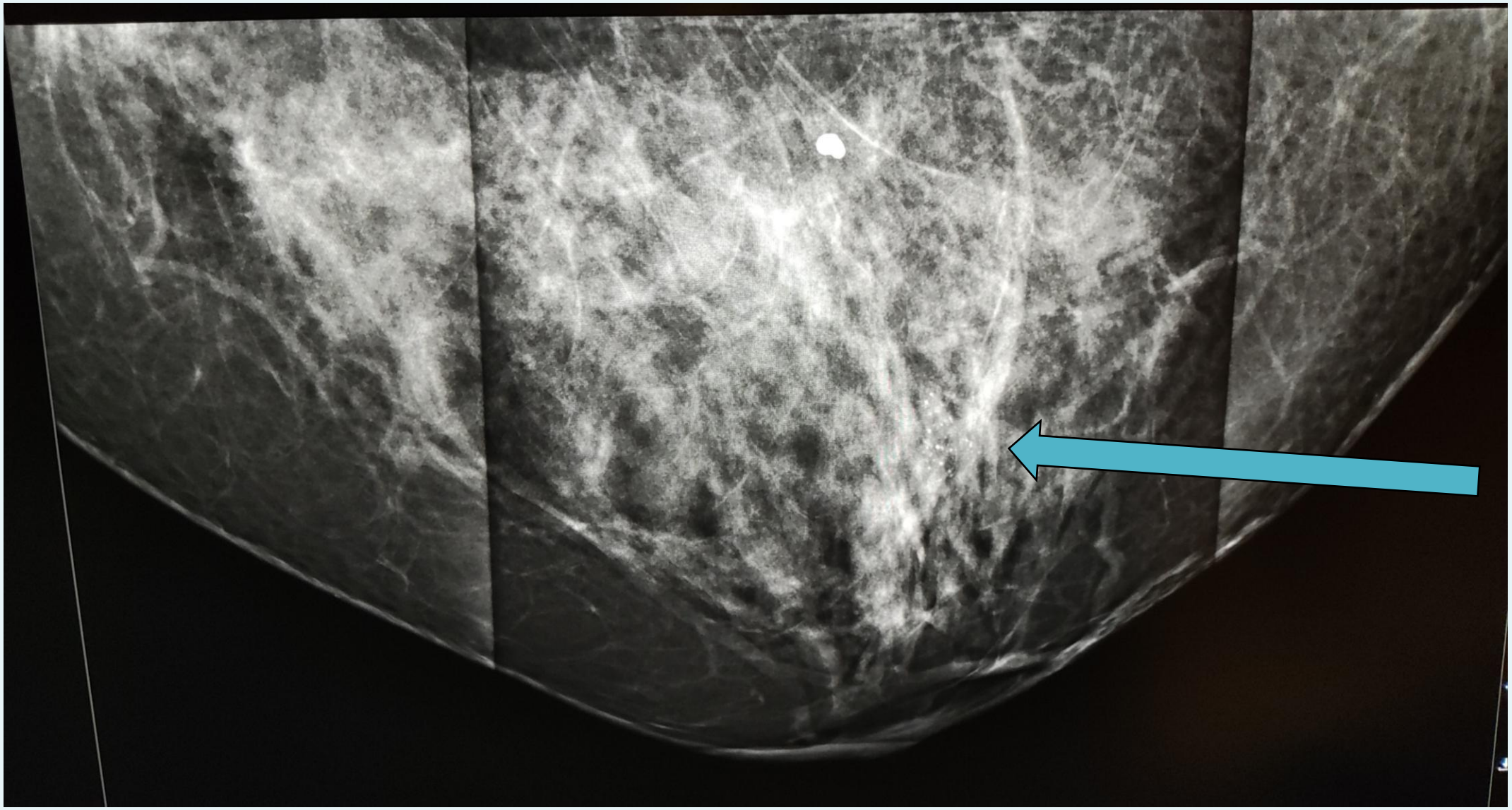


Biopszia – ülő v fekvő

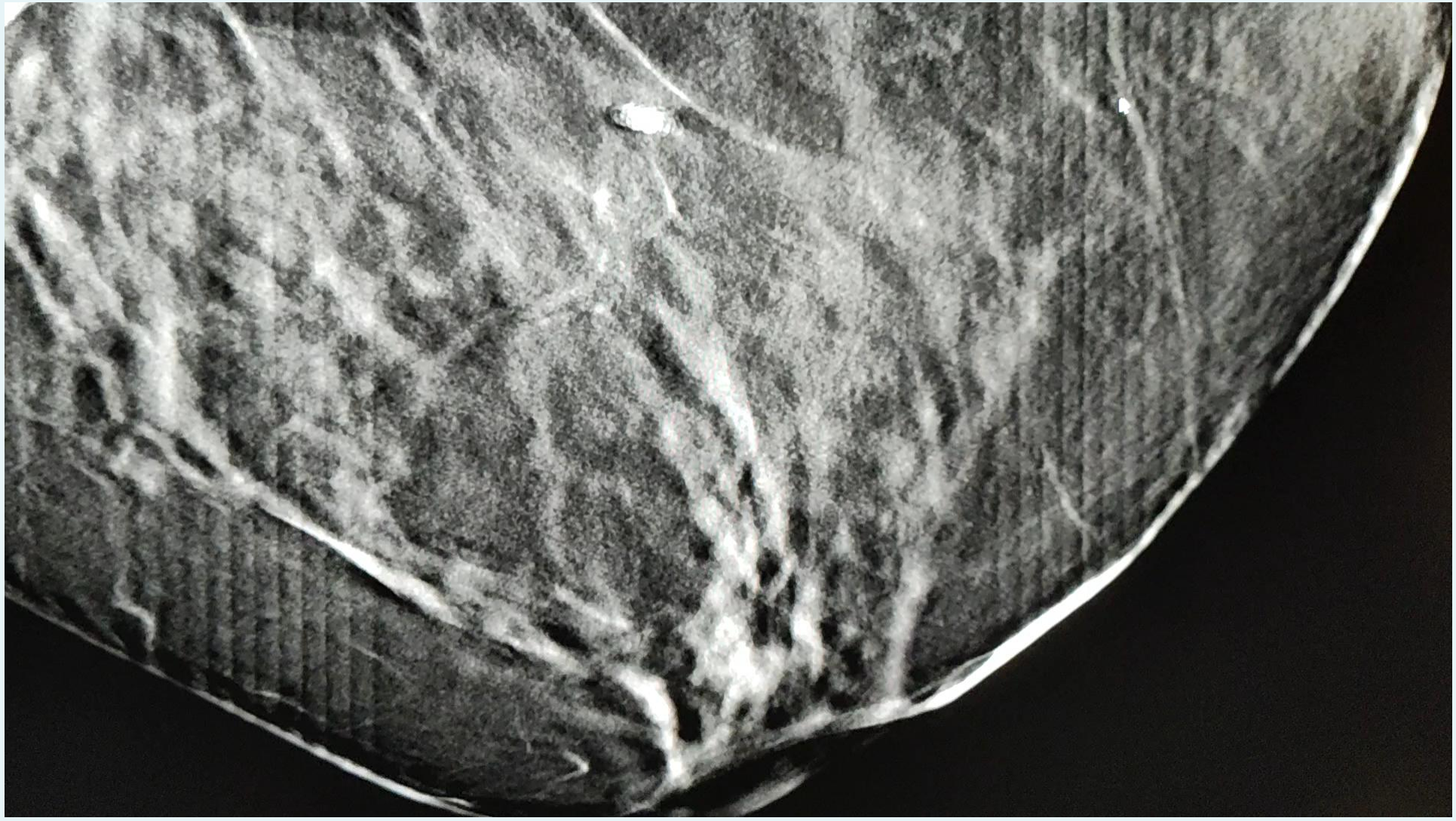


Vastagtű biopszia – UH, STB, DBT, CT, MR

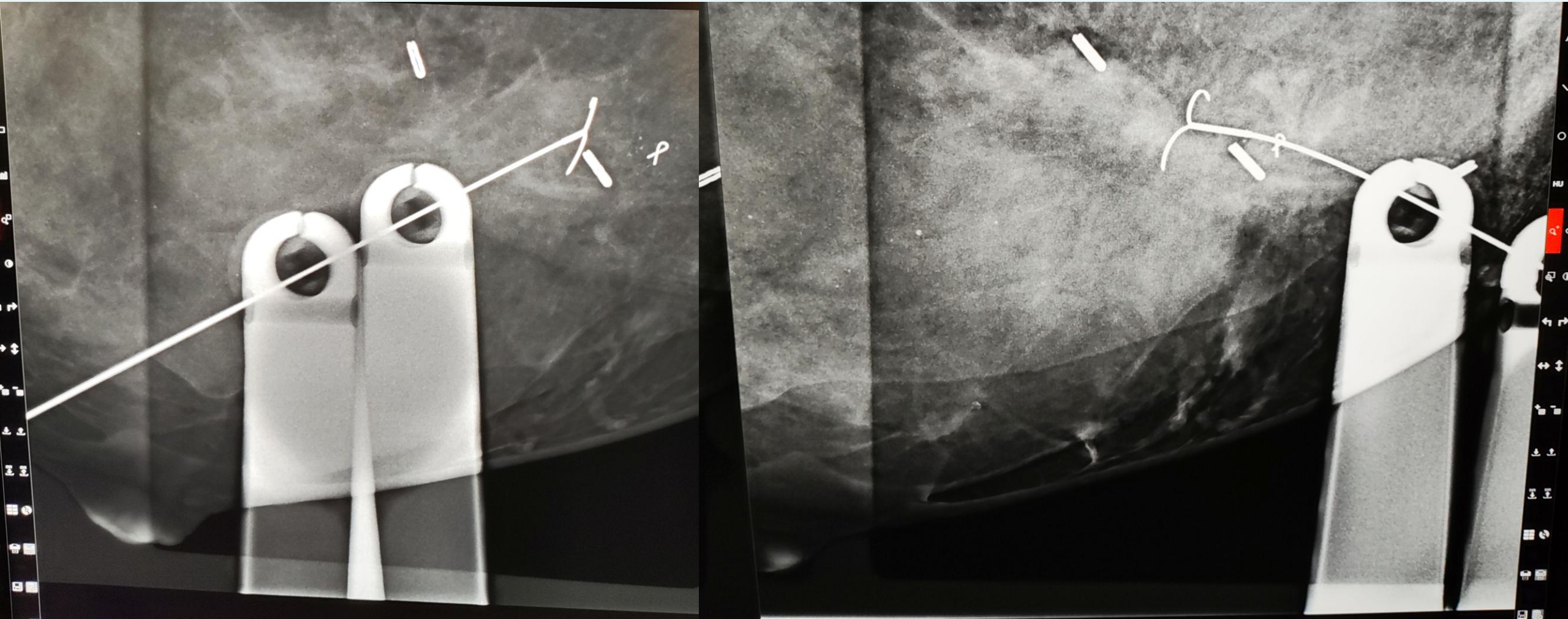
STB - MIA



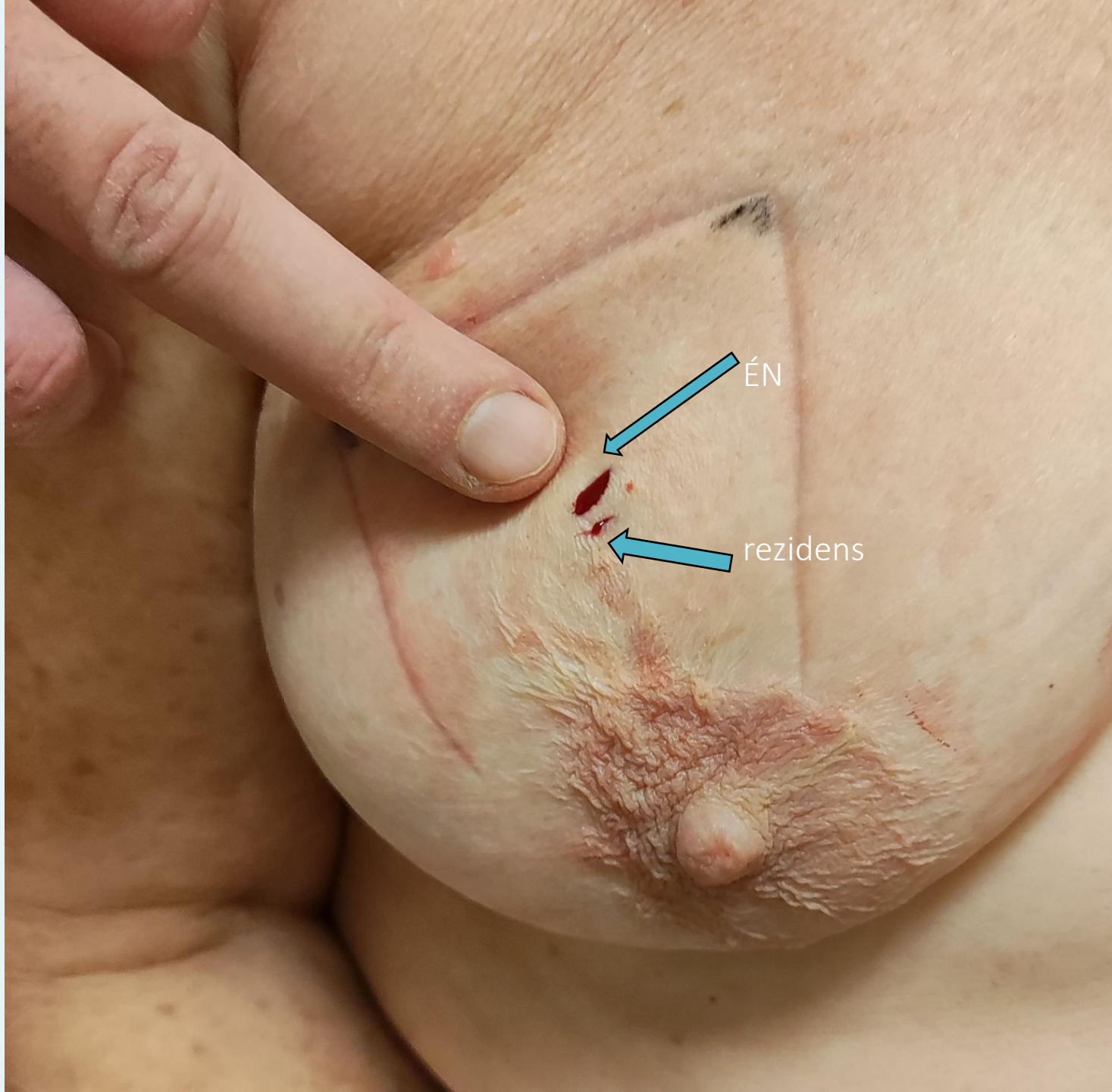
STB - MIA



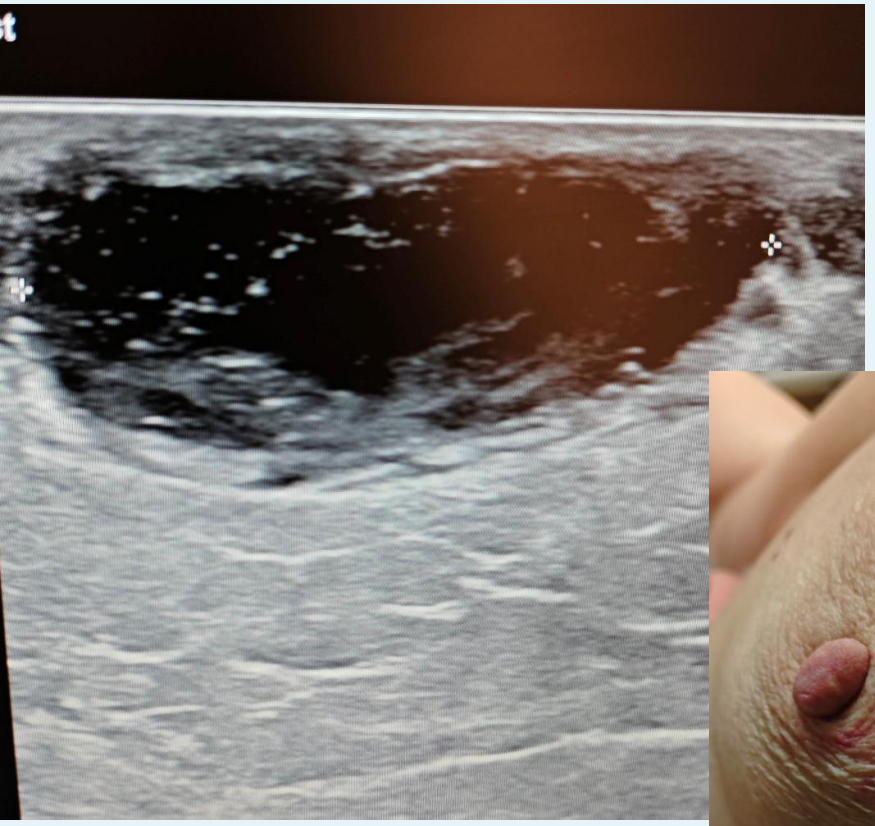
Sztereó +/-15 fok (drót)

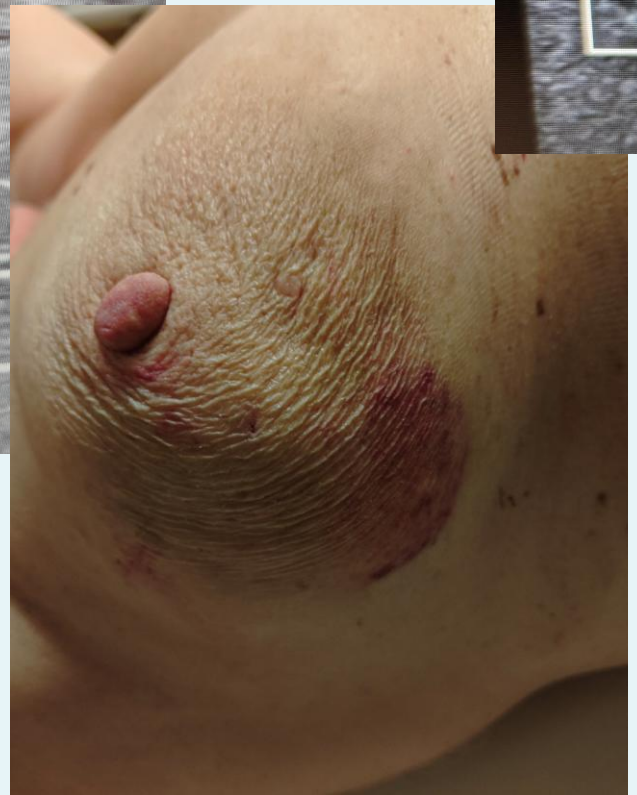


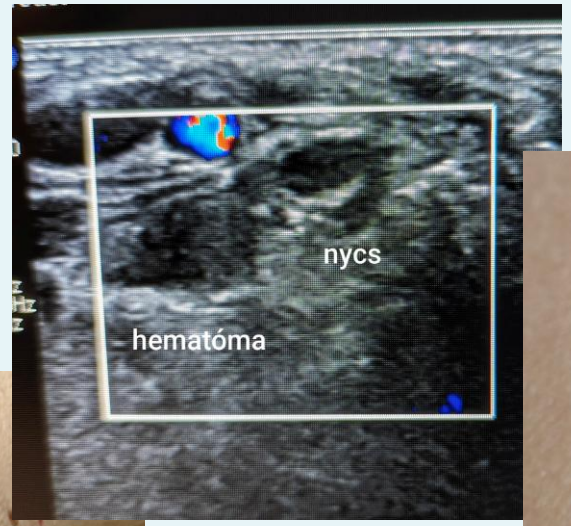
NAGY luk



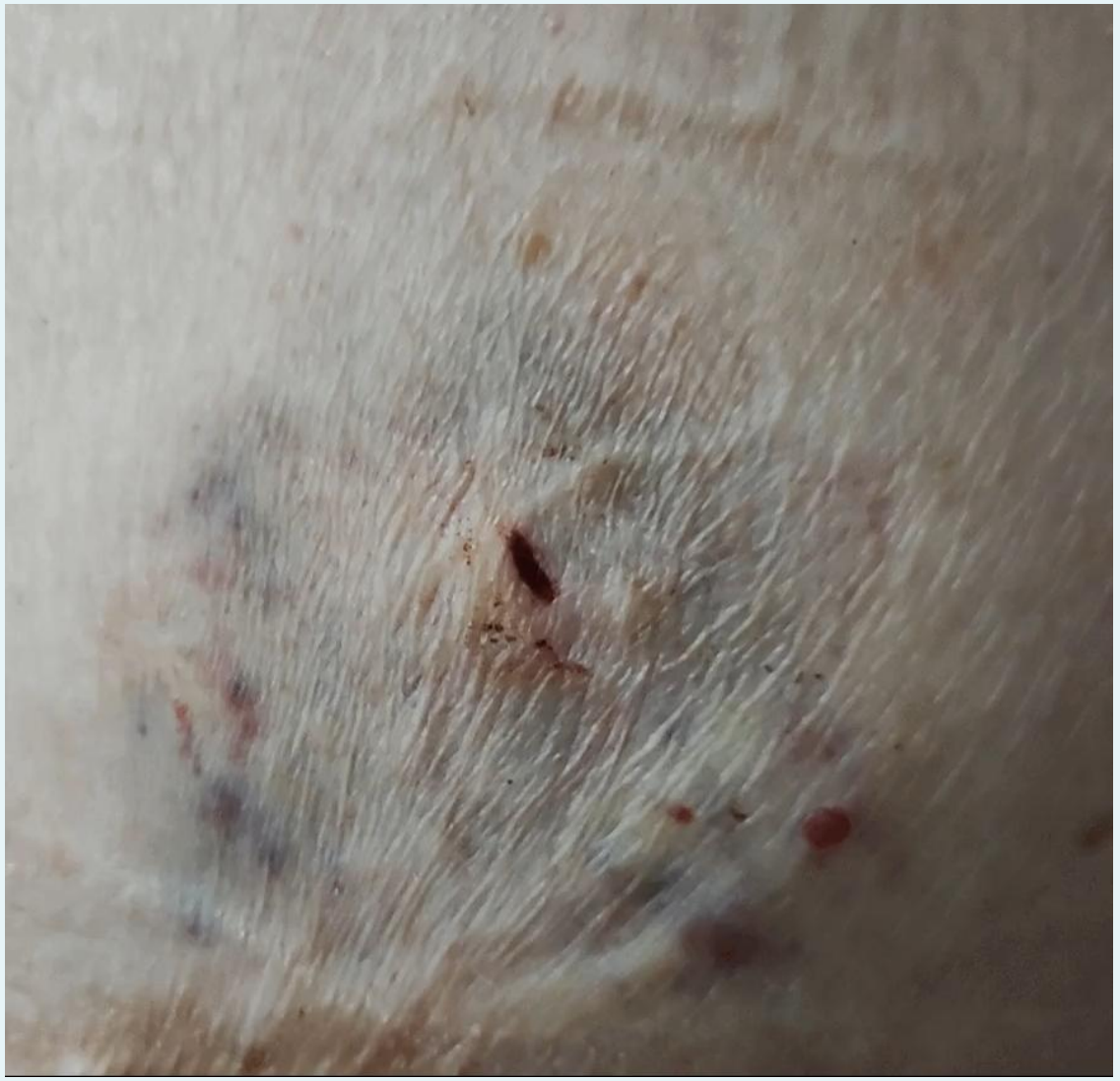
Ha szúrunk, akkor vérzik





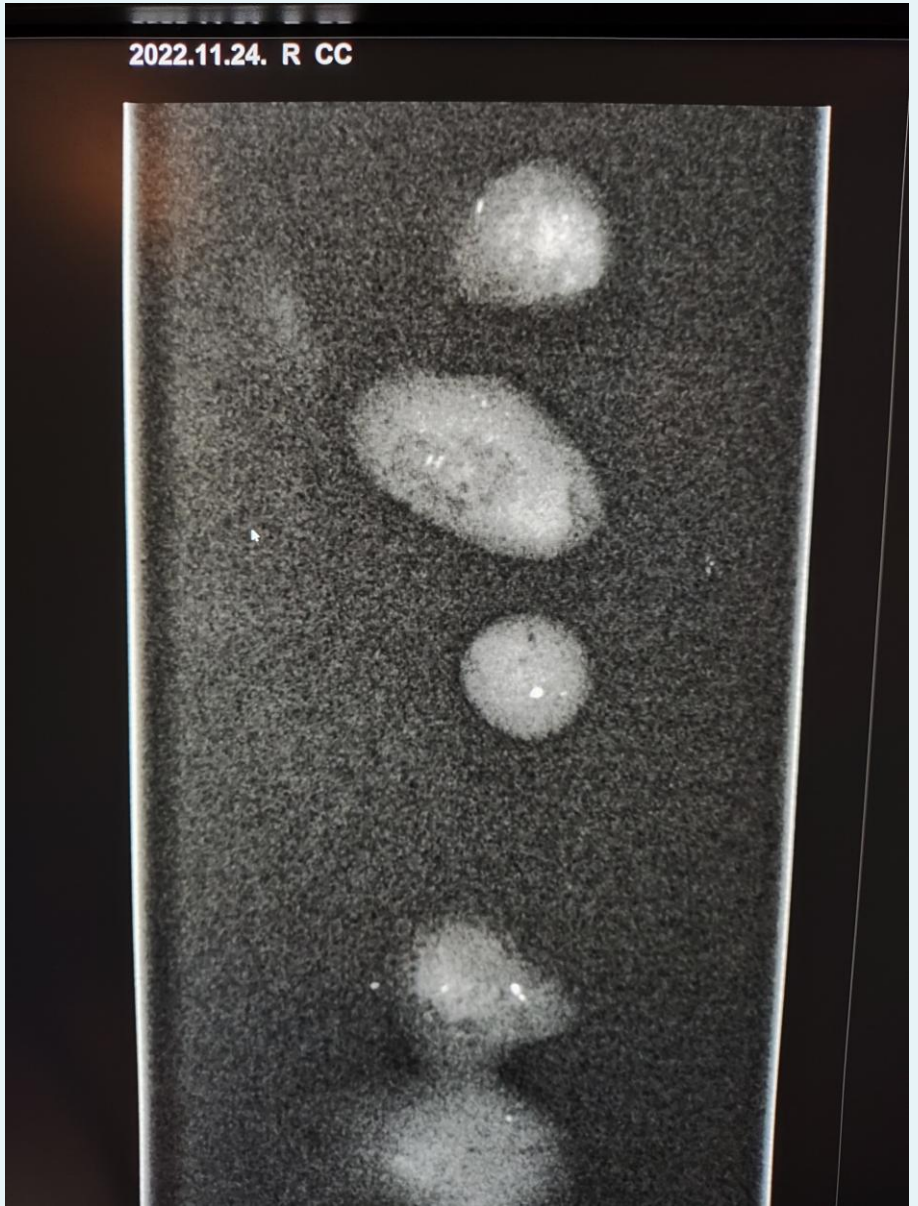


5 hét története 21 másodpercben

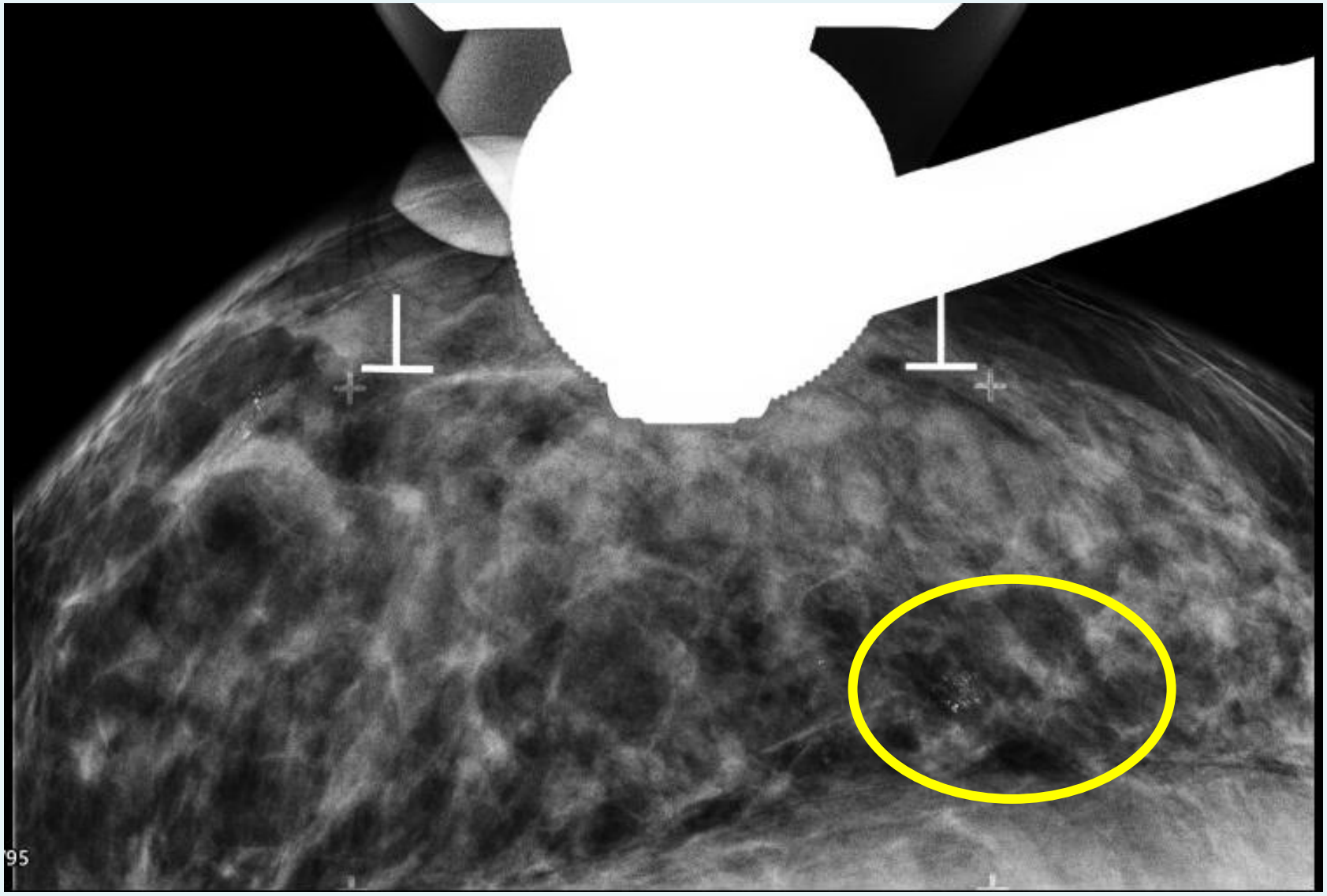


STB

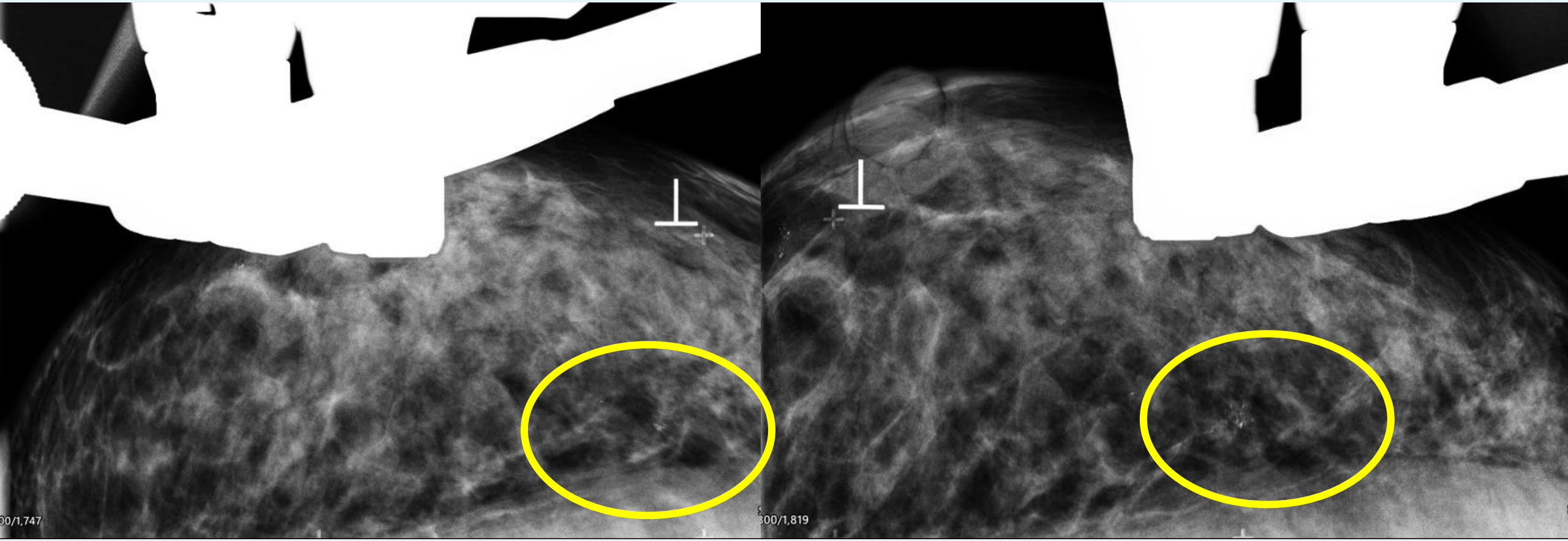
Specimen



Látják? Nem látják? Na látják?

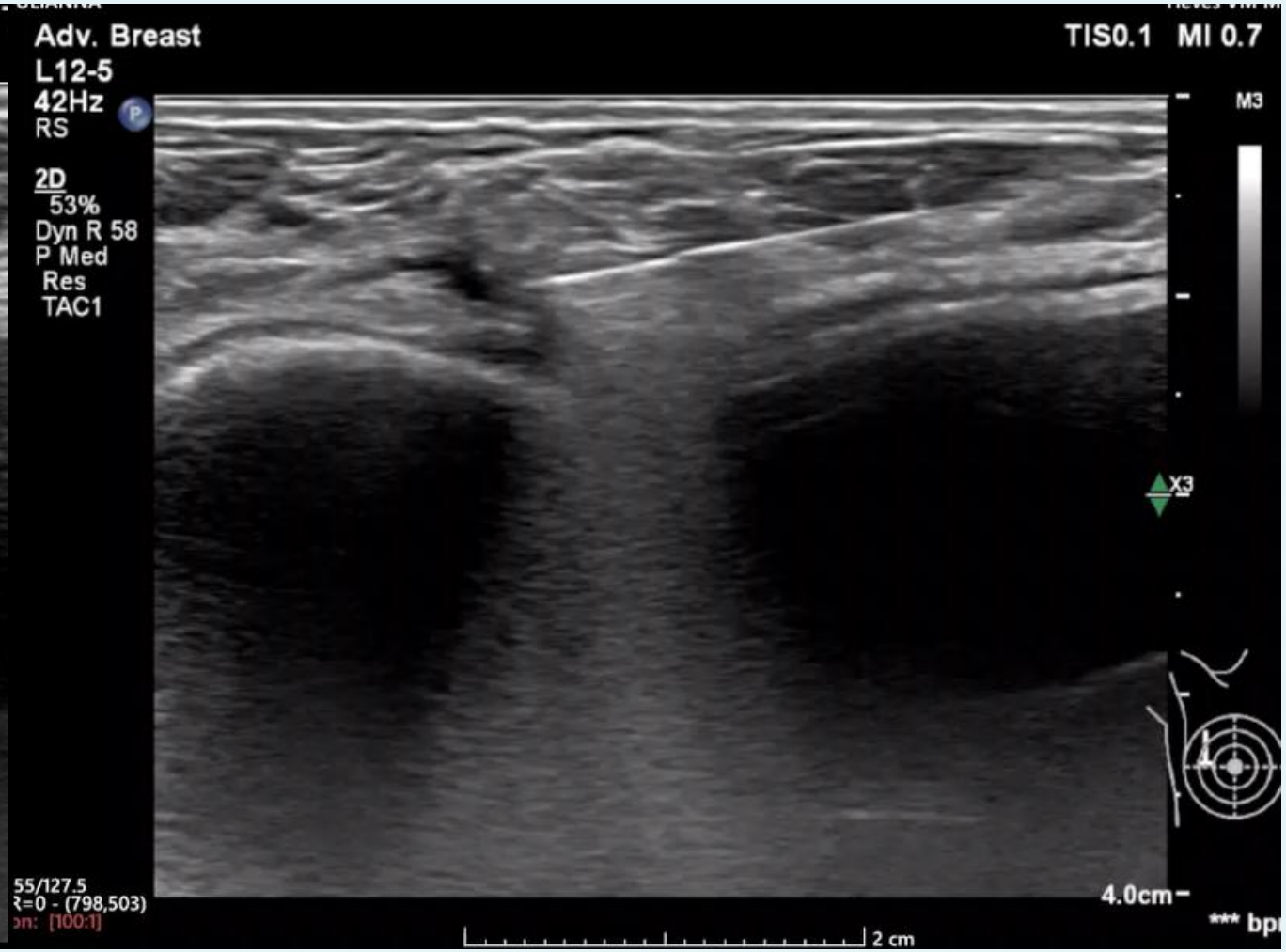


STB

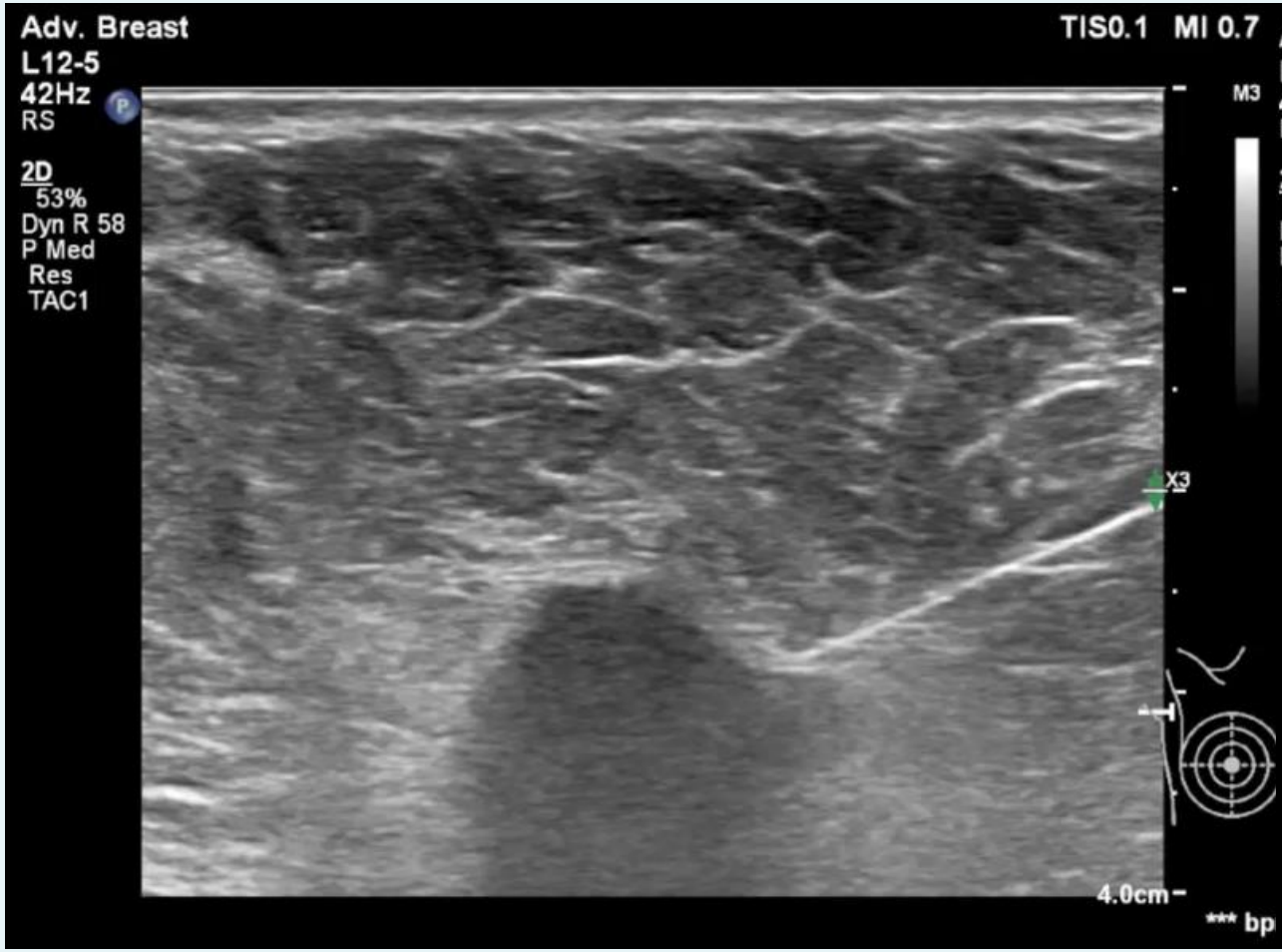


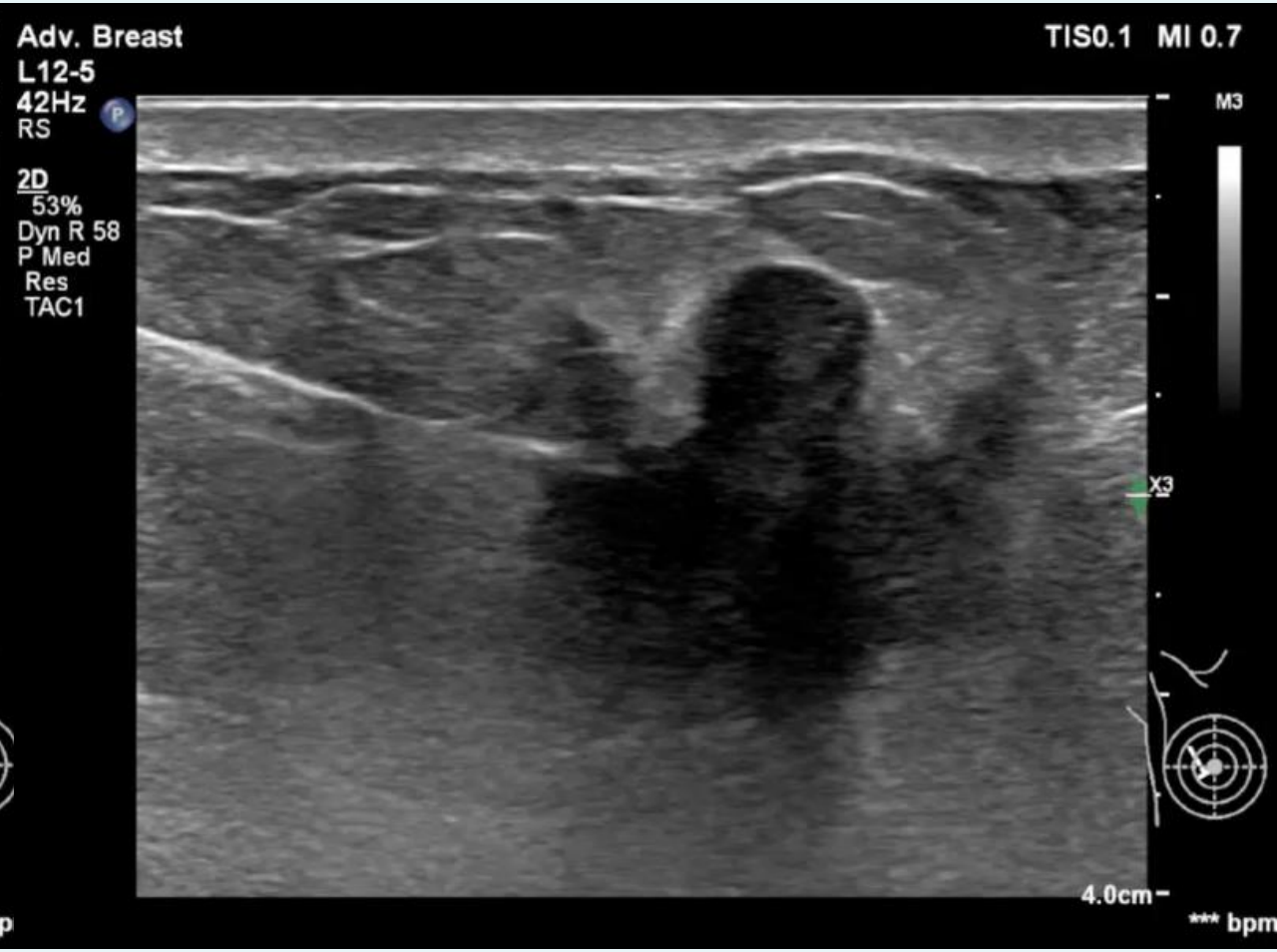
Nem elég a rétegvastagság…

Implant + biopszia + koronária torna

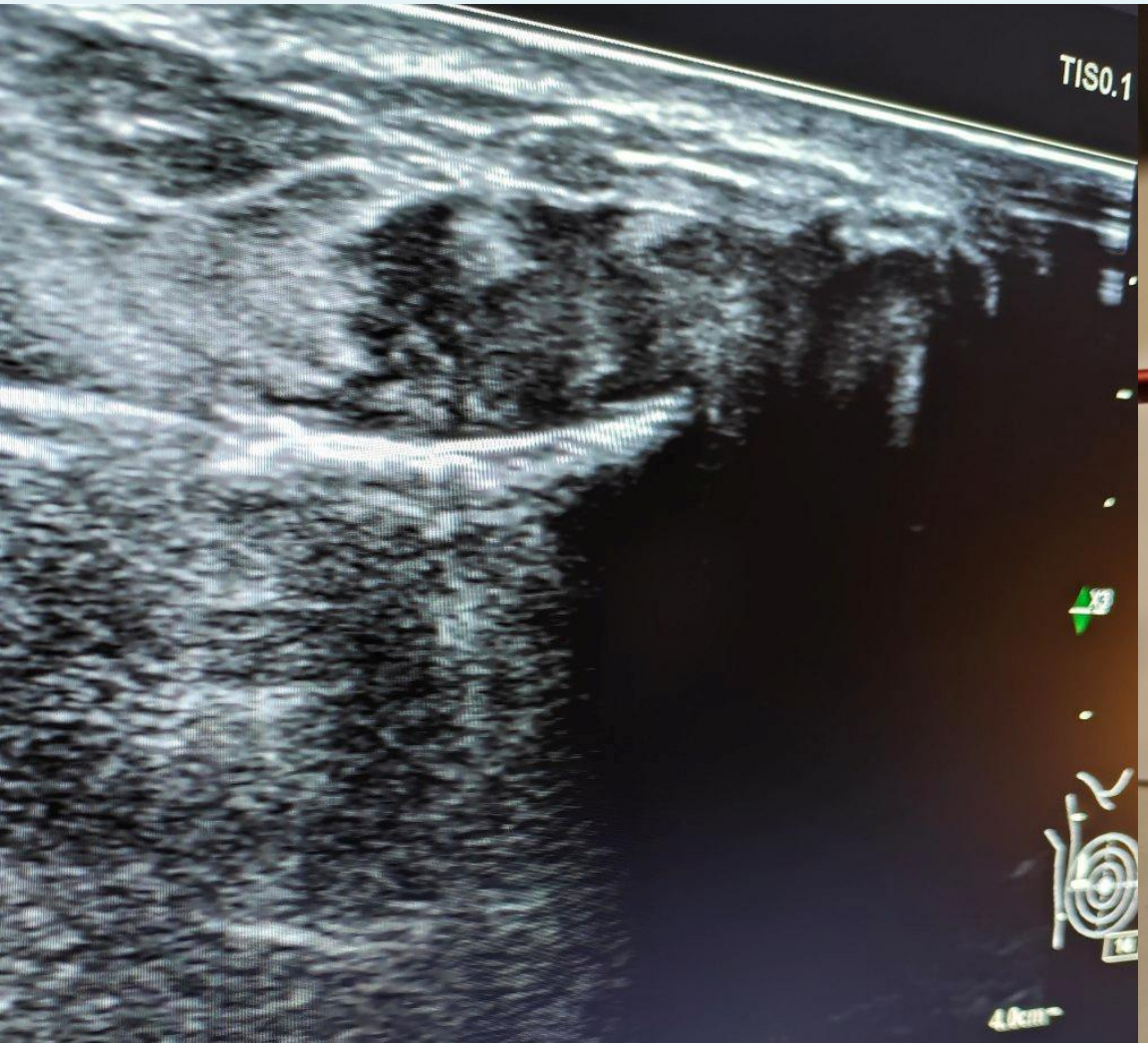


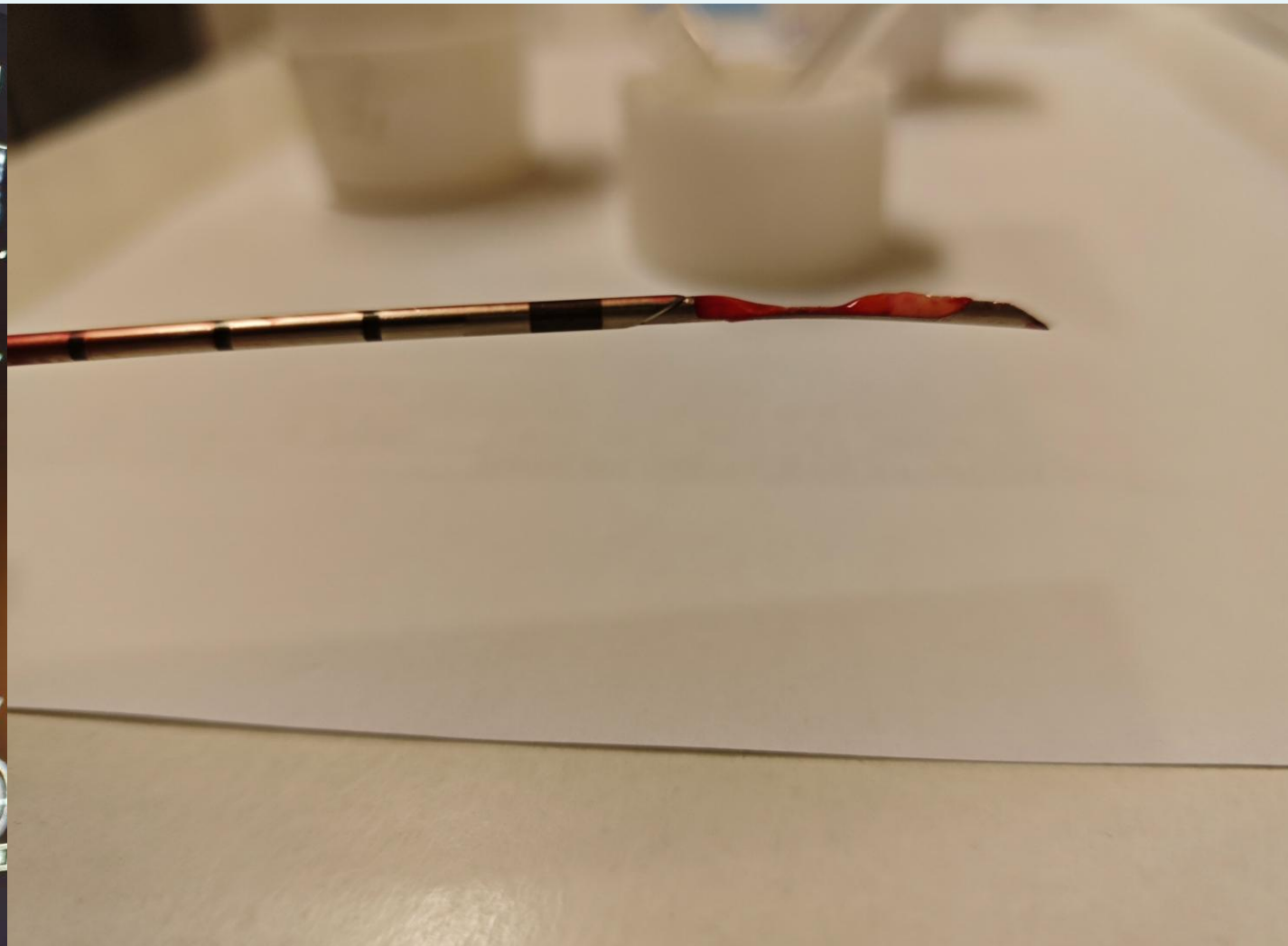
Kié keményebb?





Kié keményebb?





„Kit kell itt megdugni, hogy kapjunk egy kis teát és csokis sütit?”

Hugh Grant az Igazából szerelem c. filmben

VAB – vákuum asszisztált biopszia

VAE – vákuum asszisztált excízió

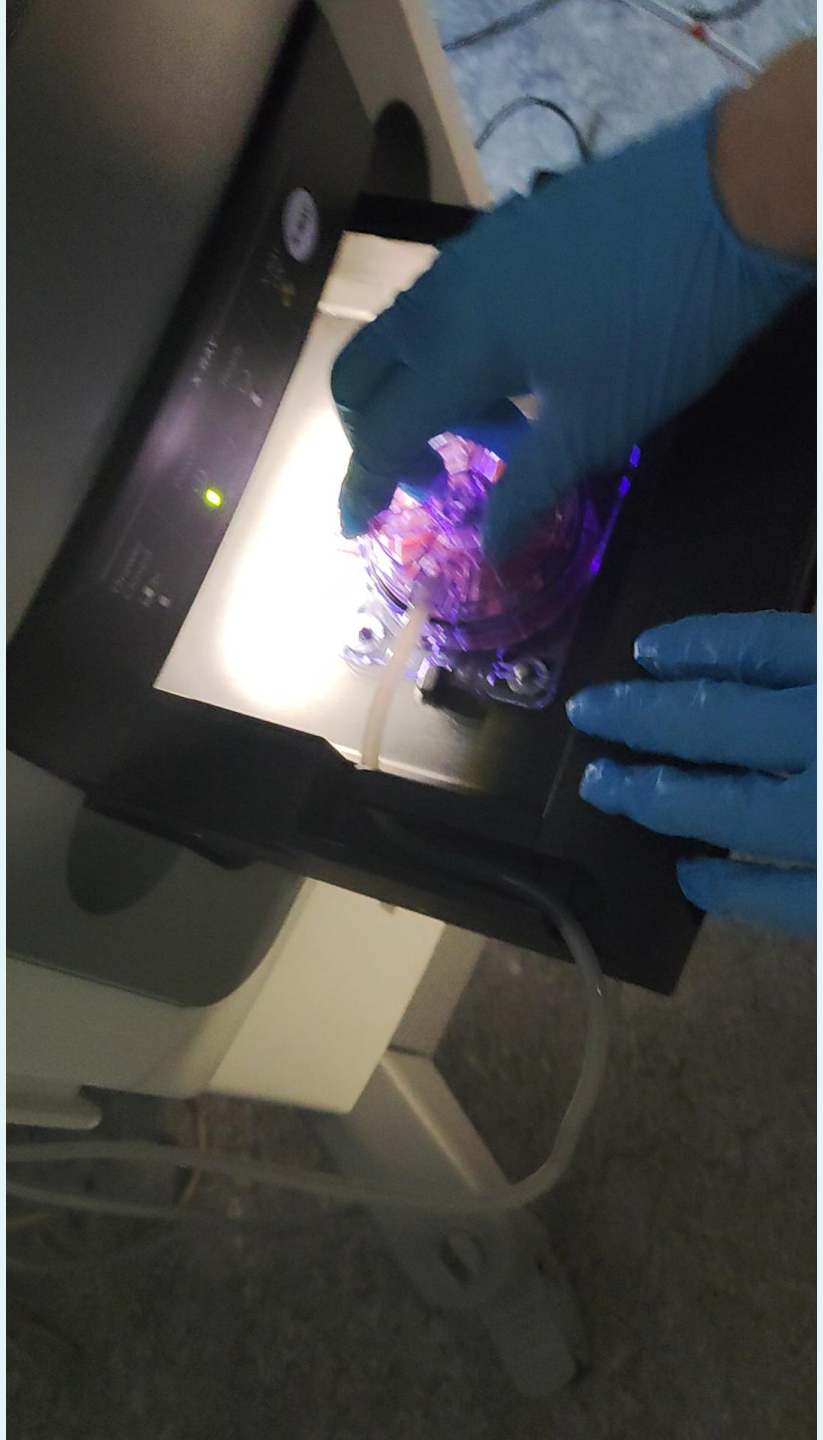
B3 léziók (már megint elnöktársammal és Kulka Janináékkal van baj…)


VACORA


HOLOGIC
X-ray System
Not Ready
Fired
Standard
20 mm
Vacuum
Ready
Biopsy cycle in progress
3 biopsy cycles completed
A
B
C
D
E
F
G
H
I
J
K
L
Standby
Test
Biopsy
Lavage
Aspirate
Standard
20 mm
Fired
Biopsy


G
1/1
0
?
Fired
Standby
Ready
elo


H
1/1
0
?
Fired
Standby
Ready
elo

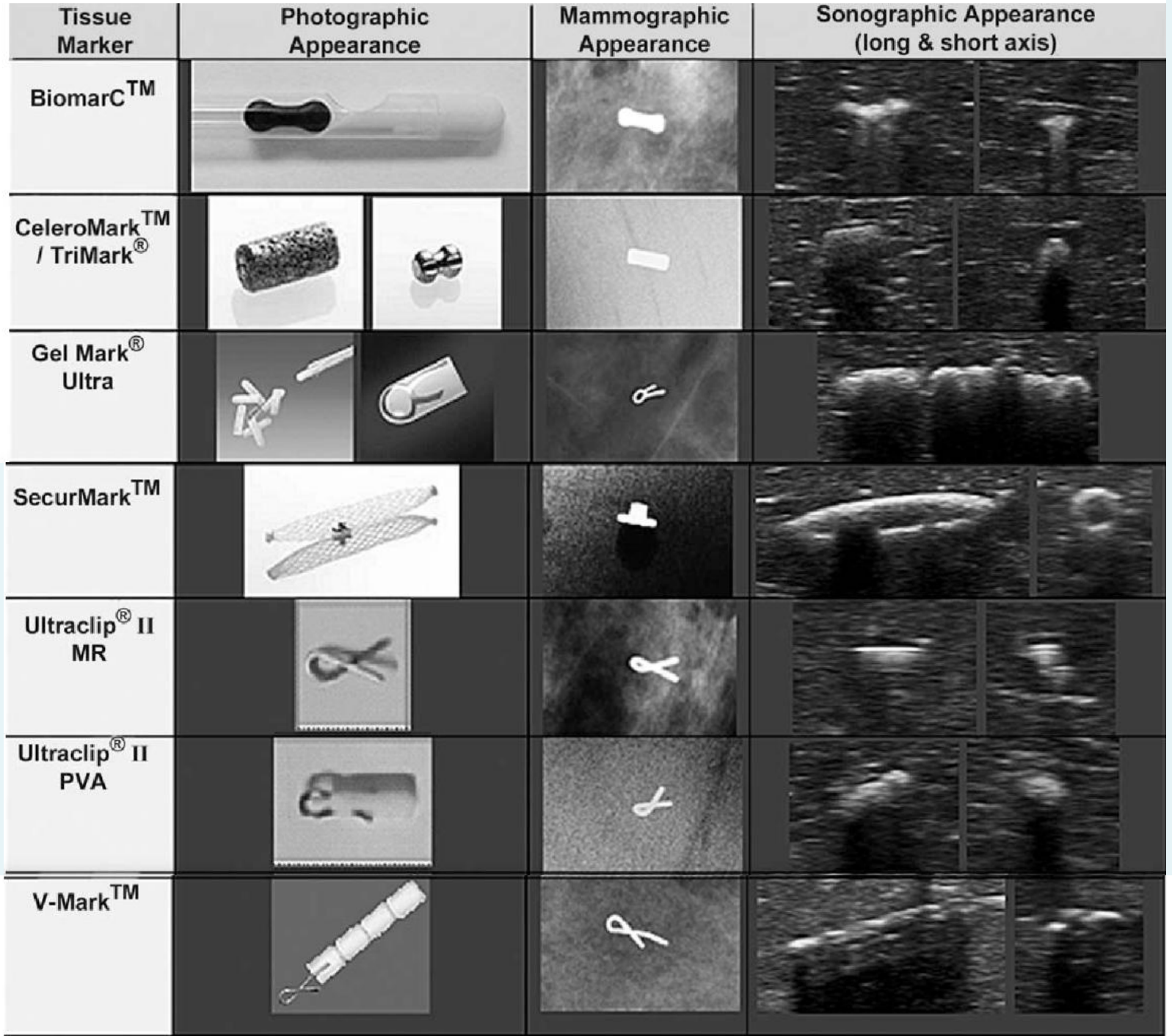



A
B
C
D
E
F
G
H
I
J
K
L
287260


lukat fúrtunk

Klipp

Klippek


Tissue Marker
Photographic Appearance
Mammographic Appearance
Sonographic Appearance (long & short axis)
BiomarC™
CeleroMark™ / TriMark®
Gel Mark® Ultra
SecurMark™
Ultraclip® II MR
Ultraclip® II PVA
V-Mark™

Van értelme?

Úgy hasonlítanak, mint két mastectomia egymáshoz

ECR 2026 – disclosures

- a MaMMa Zrt.-től pénzt kapok
- vonattal jöttem (ha autóval, akkor 80 kg CO_2 egyenértékű gázt termeltem volna)
- a biopsziák során véres/veszélyes anyagok és szúrós eszközök kerülnek a hulladékba
- nem olvastam le a szűrést

„A Földet nem szüleinktől örököltük, hanem unokáinktól kaptuk kölcsön!”

Programme
My Agenda
My CME
ECR 2026 Photo Gallery
Contact Form
General Information

Multidisciplinary Session

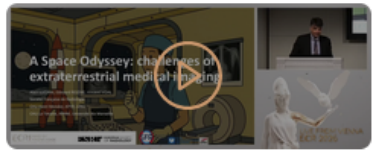
MS 16 - Extraterrestrial medical imaging: seeing in dark space with Athena's imaging rays

ECR 2026 | 7 Lectures | 90 Minutes | 6 Speakers

LECTURES

EVALUATED

2



A Space Odyssey: challenges of extraterrestrial medical imaging

15:00 Alain Luciani, Paris / FR

3

How close to Ithaka? (part I) Innovations advancing extraterrestrial MRI

15:00 Andrew G. Webb, Leiden / NL

4

How close to Ithaka? (part II) Pioneering outer-space x-ray medical imaging

15:00 Sheyna Gifford, Rochester, MN / US

5

How close to Ithaka? (part III) Image-guided minimally invasive surgical procedures in microgravity

15:00 David Lerner, Seattle / US

6

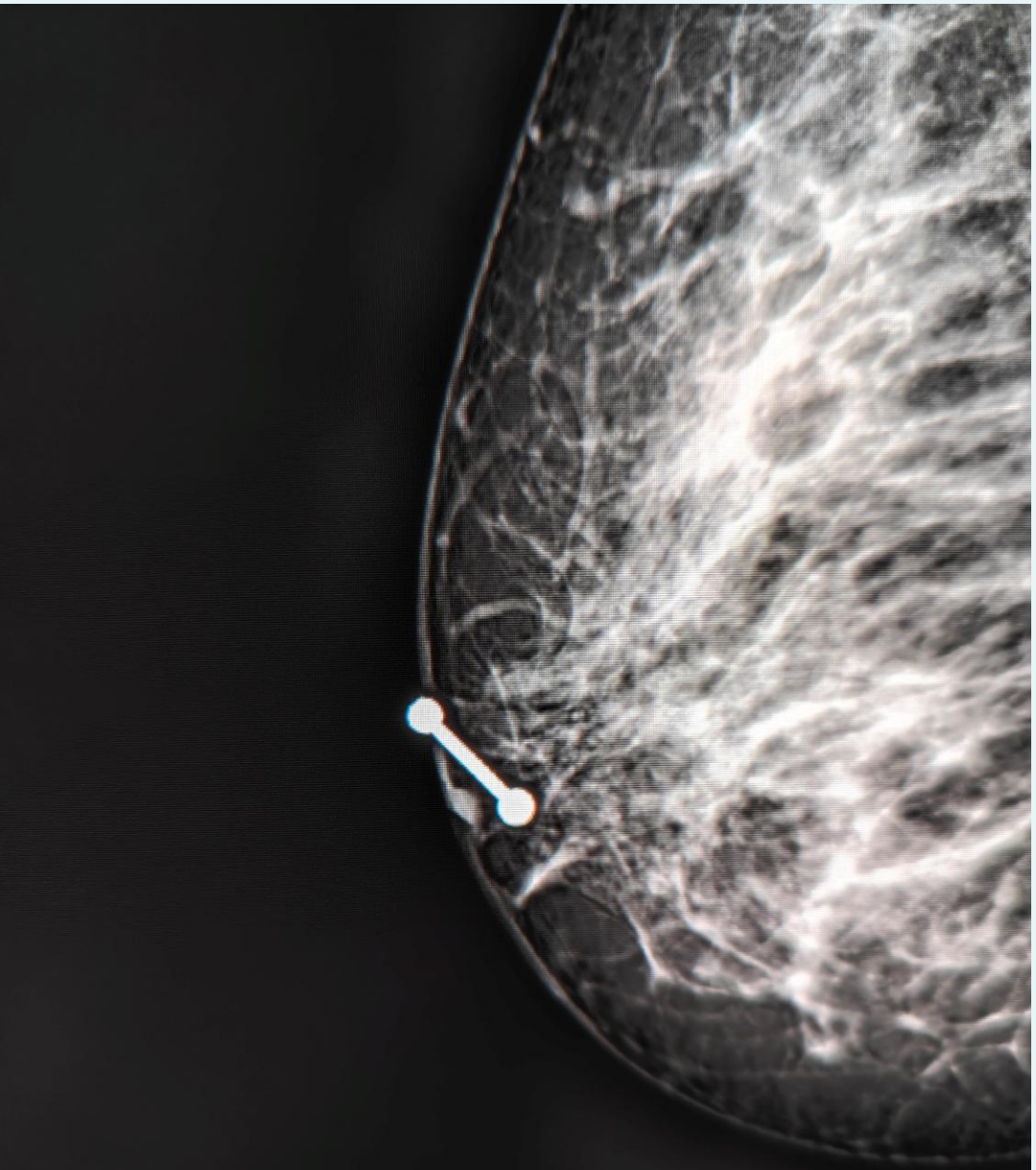
Getting back to earth: imaging and medical parallels between astronauts and patients

15:00 Edouard Reizine, Sceaux / FR

Céljaink a mintavétellel:

Céljaink a mintavétellel:

Sok sikert a következő 30 évre!



Hajrá MaMMa!