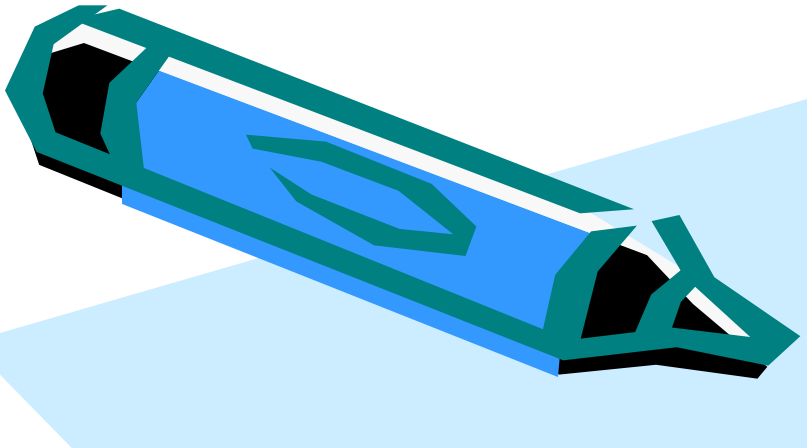
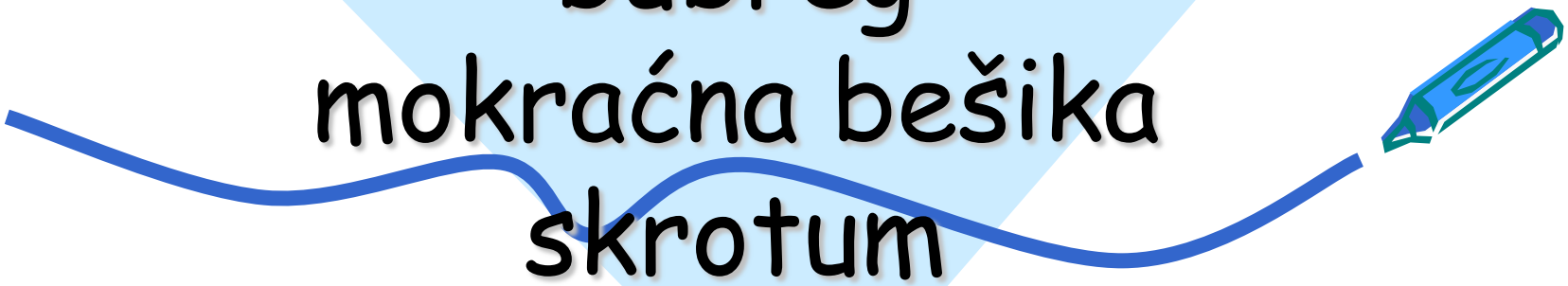


UROGENITALNI SISTEM

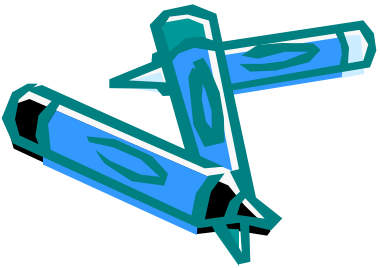
bubreg
mokraćna bešika
skrotum



Nuklearna nefrologija

- Utvrđivanje i praćenje funkcije bubrega
- Različiti radiofarmaci
- Dinamske
- Statičke studije

- Tc ^{99m} DTPA (dietil triamino penta acetat)
- Tc ^{99m} MAG3 (merkapto acetil triglicin)
- Tc ^{99m} DMSA (dimerkaptosukcinat)
- J ^{131} hipuran (orto jod hipurna kiselina)



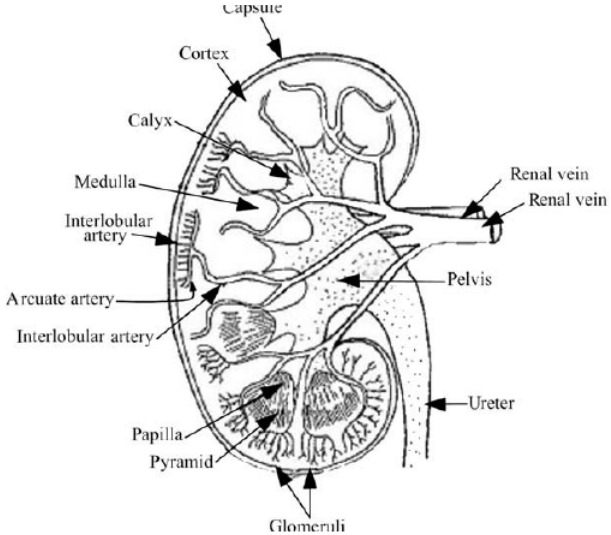
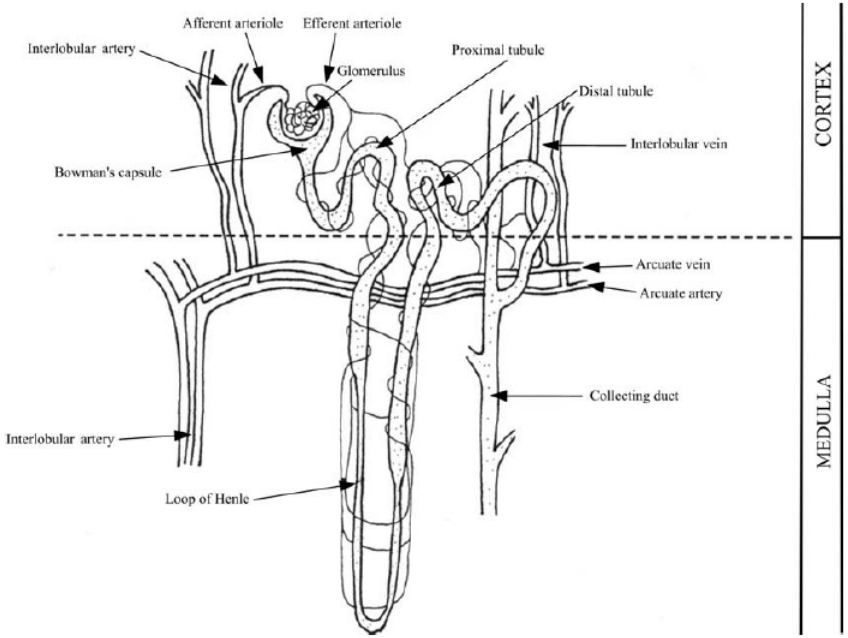
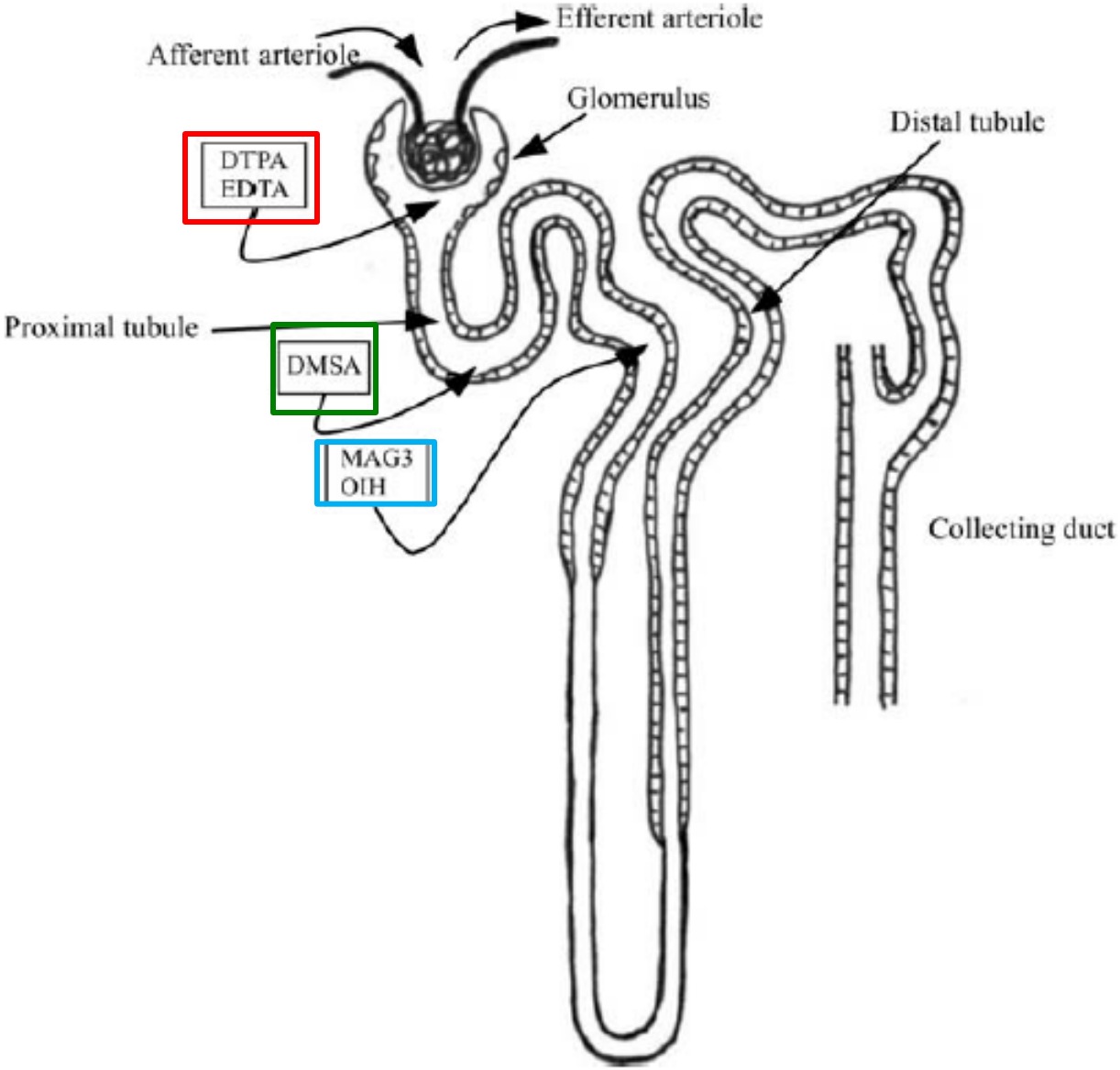


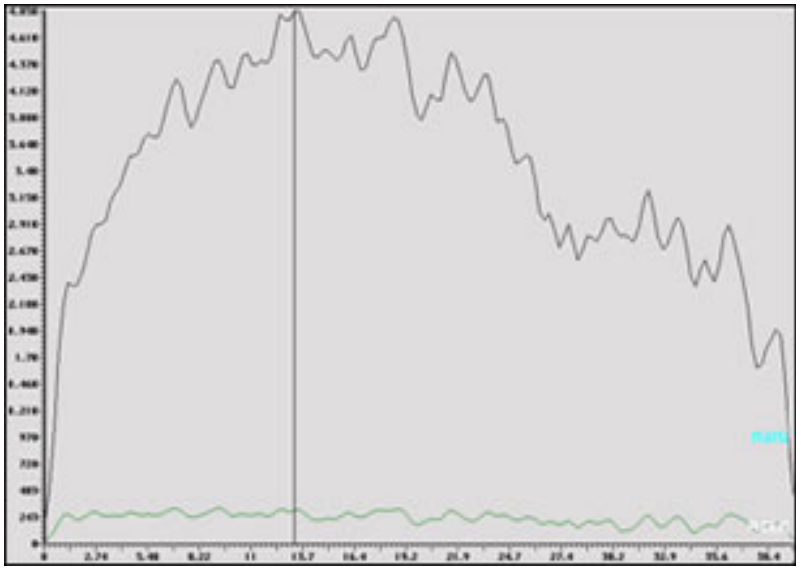
Figure 11.1. Gross anatomy of the kidney.




Efferent arteriole
Afferent arteriole
Glomerulus
Distal tubule
DTPA
EDTA
Proximal tubule
DMSA
MAG3
OIH
Collecting duct

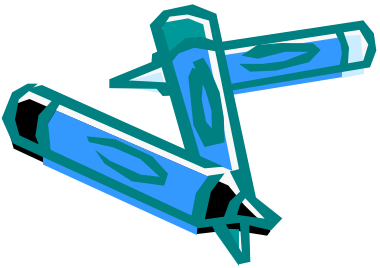
dinamska scintigrafija bubrega

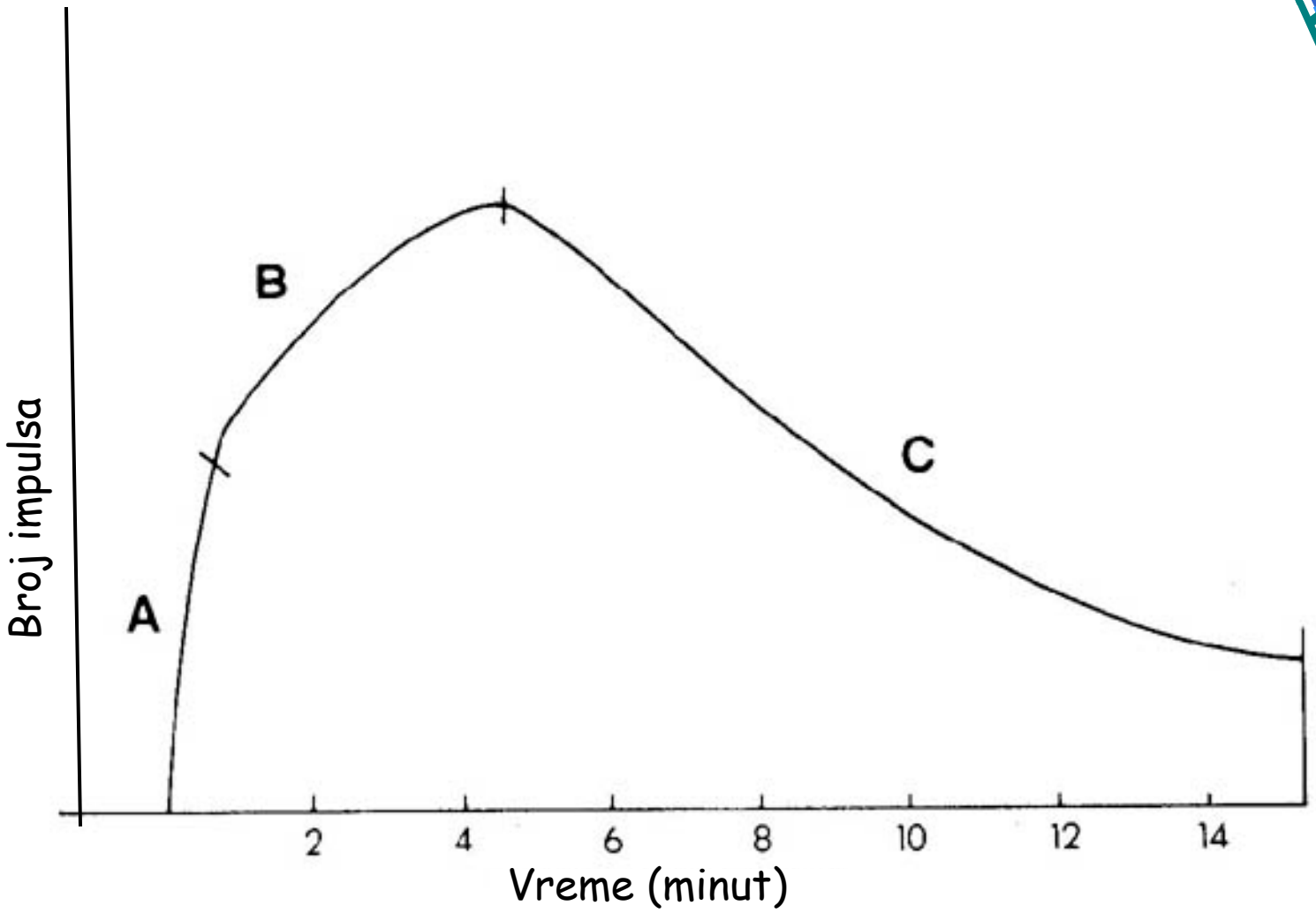
- Tc^{99m} DTPA
- Tc^{99m} MAG3
- J^{131} hipuran

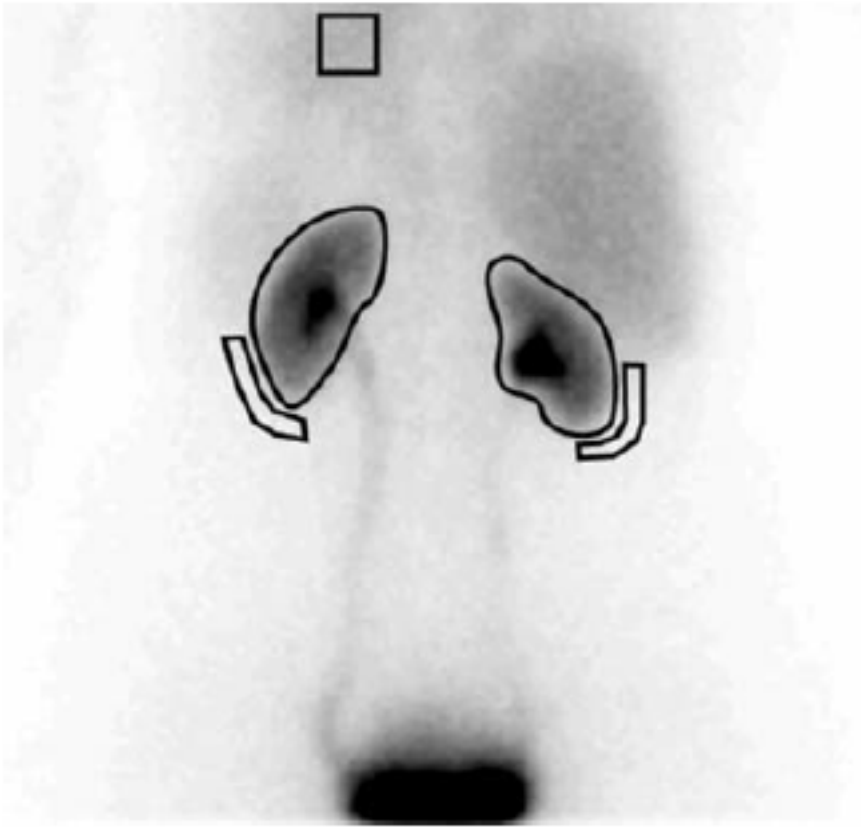


indikacije za dinamsku sc.bubrega

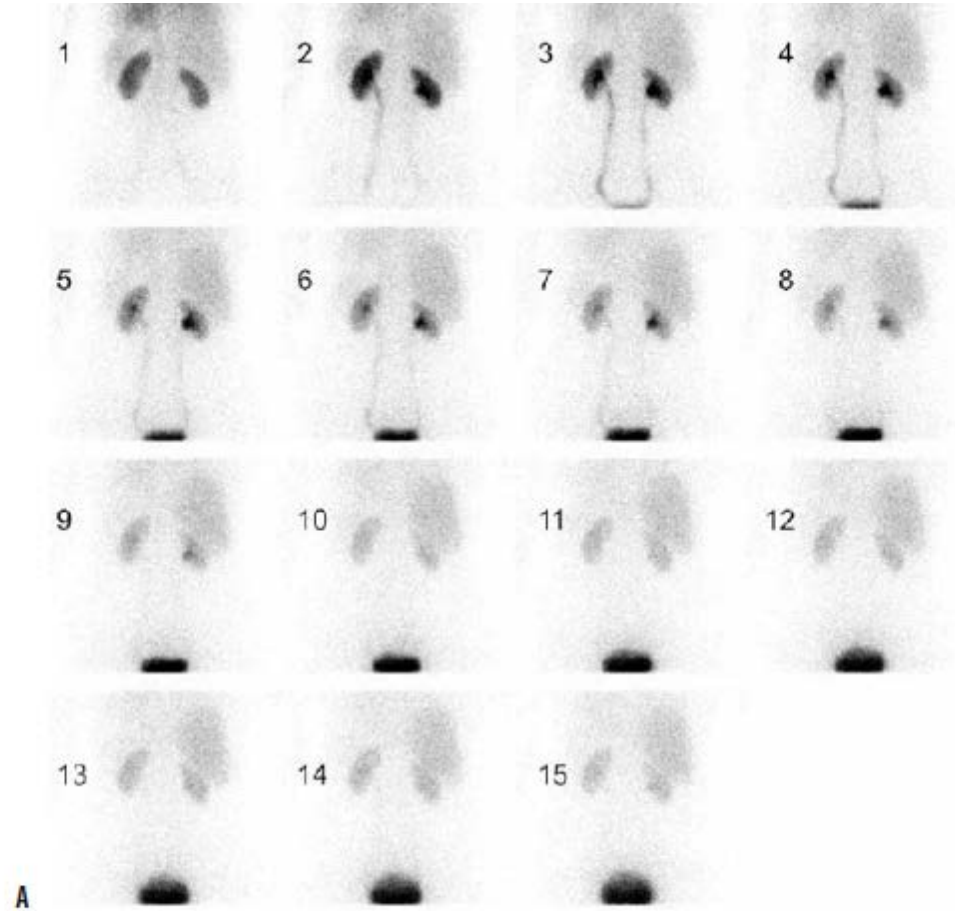
- urodjene anomalije
- vaskularne bolesti
- parenhimske bolesti
- obstruktivne bolesti bubrega
- insuficijencija bubrega
- ispitivanje funkcije presađenog bubrega

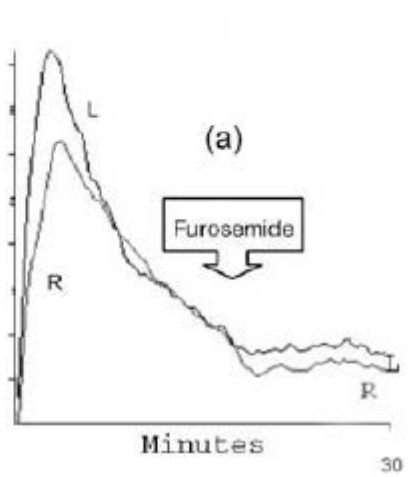


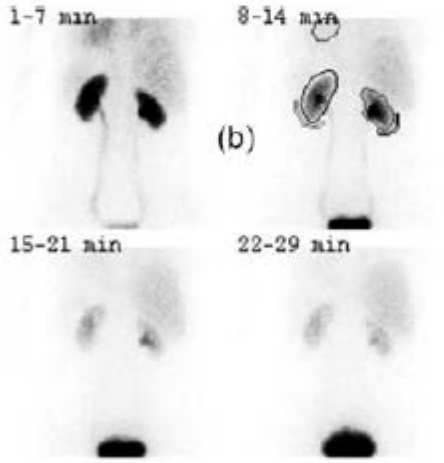

Broj impulsa
A
B
C
2
4
6
8
10
12
14
Vreme (minut)

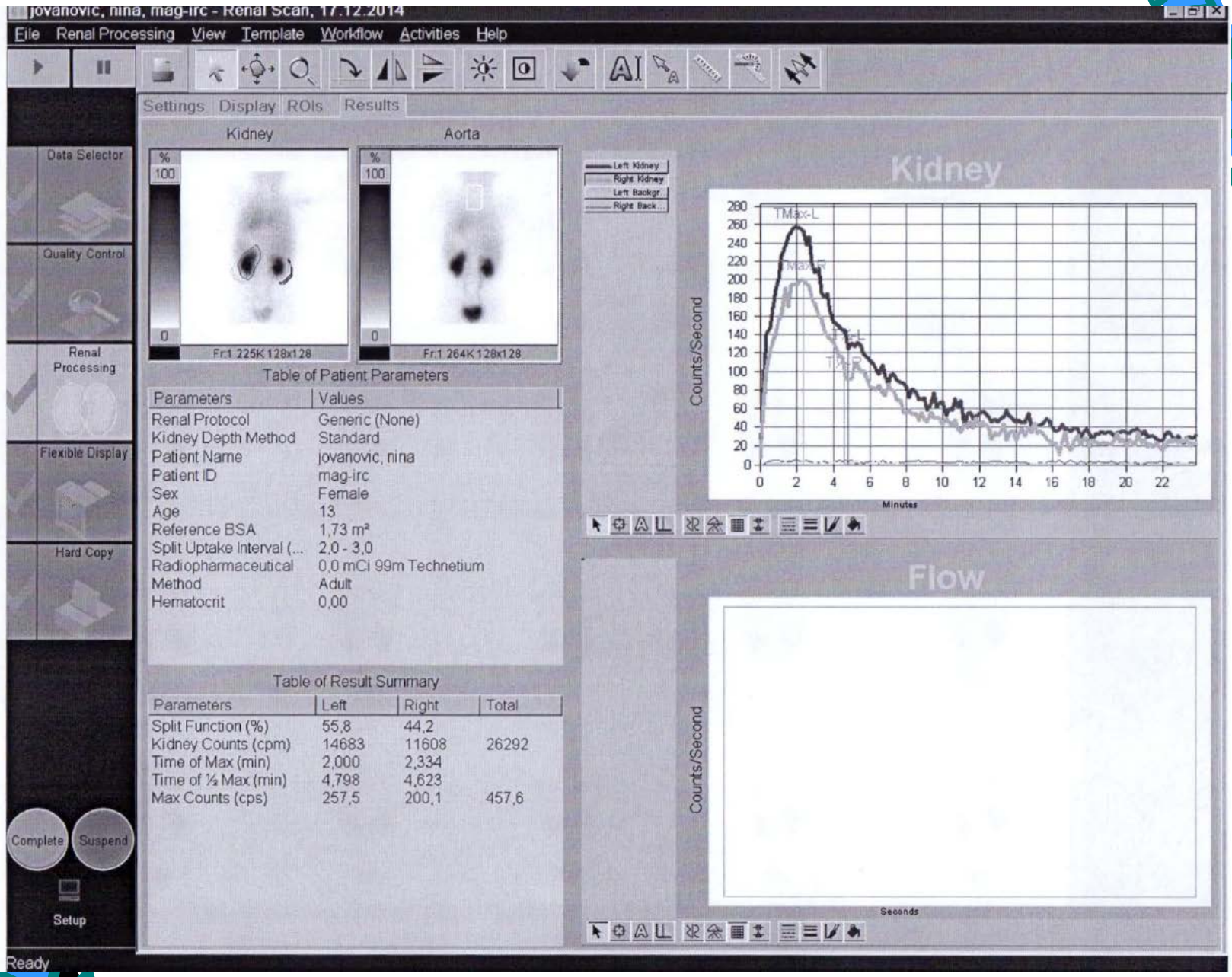


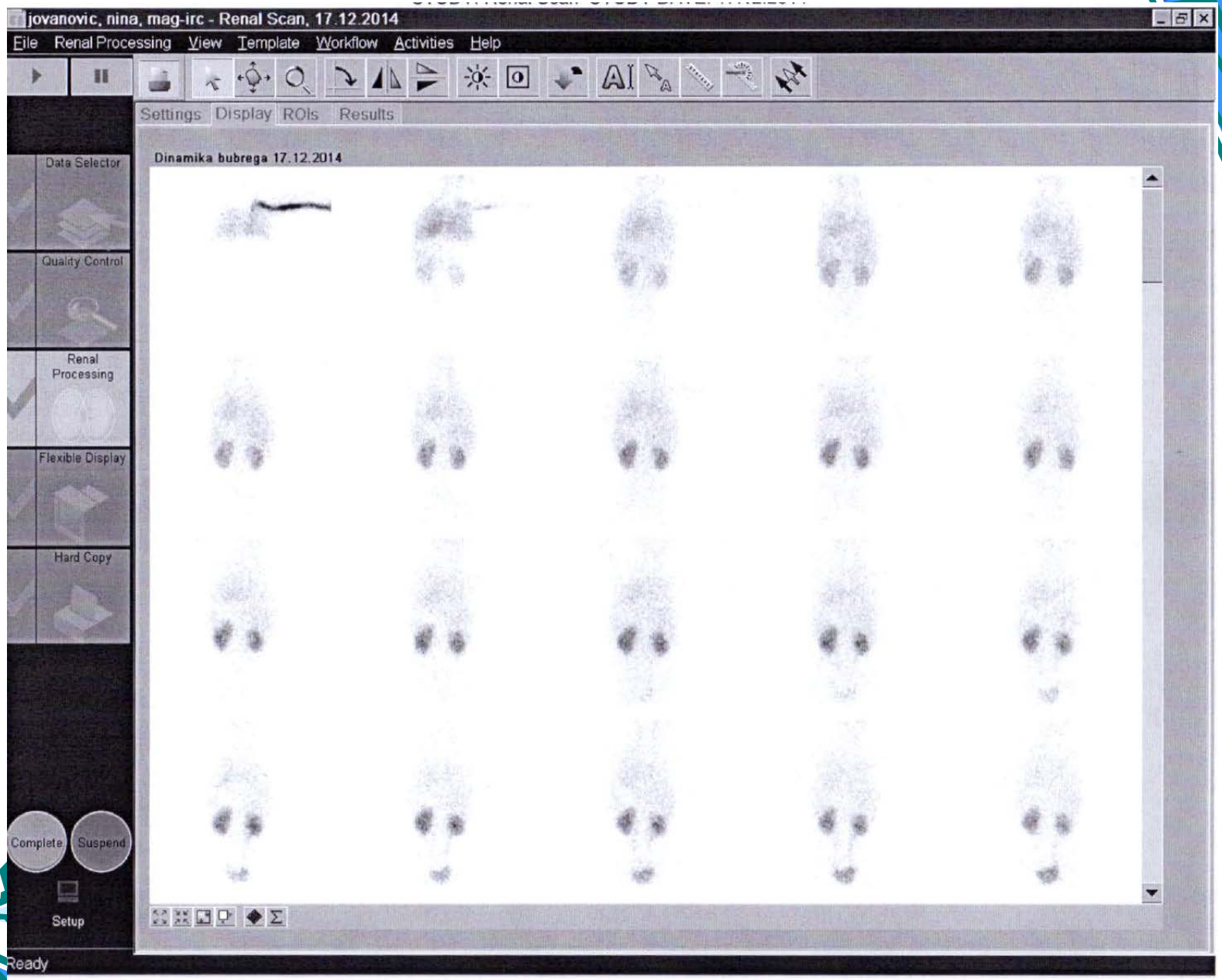
„kompozitni scintigram" nastao zbrajanjem „frejmova"


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A


L
(a)
Furosemide
R
R
Minutes
30


1-7 min
8-14 min
(b)
15-21 min
22-29 min


jovanovic, nina, mag-irc - Renal Scan, 17.12.2014
File Renal Processing View Template Workflow Activities Help
Settings Display ROIs Results
Kidney
Aorta
Fr:1 225K 128x128
Fr:1 264K 128x128
Table of Patient Parameters
Parameters Values
Renal Protocol Generic (None)
Kidney Depth Method Standard
Patient Name jovanovic, nina
Patient ID mag-irc
Sex Female
Age 13
Reference BSA 1,73 m²
Split Uptake Interval (... 2,0 - 3,0
Radiopharmaceutical 0,0 mCi 99m Technetium
Method Adult
Hematocrit 0,00
Table of Result Summary
Parameters Left Right Total
Split Function (%) 55,8 44,2
Kidney Counts (cpm) 14683 11608 26292
Time of Max (min) 2,000 2,334
Time of ½ Max (min) 4,798 4,623
Max Counts (cps) 257,5 200,1 457,6
Data Selector
Quality Control
Renal Processing
Flexible Display
Hard Copy
Complete
Suspend
Setup
Ready
Left Kidney
Right Kidney
Left Backgr...
Right Back...
Kidney
Counts/Second
Minutes
Flow
Seconds


jovanovic, nina, mag-irc - Renal Scan, 17.12.2014
File
Renal Processing
View
Template
Workflow
Activities
Help
Settings
Display
ROIs
Results
Dinamika bubrega 17.12.2014
Data Selector
Quality Control
Renal Processing
Flexible Display
Hard Copy
Complete
Suspend
Setup
Ready

VESEGÖRBÉK ÉRTÉKELÉSE

RELATIV FUNKCIO: (30 s - 90 s)

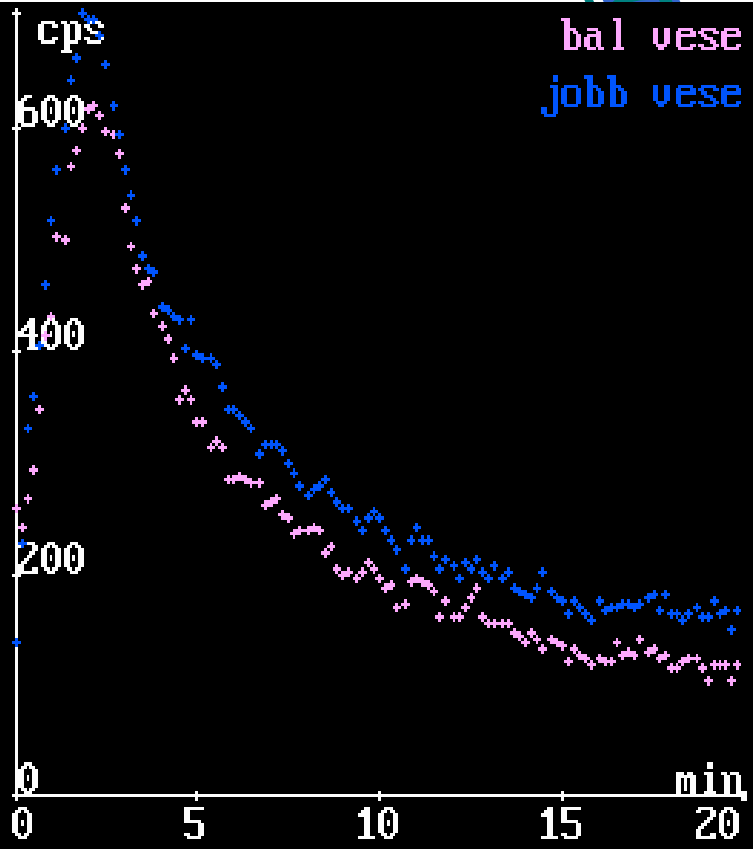
bal vese	:	46.1 %
jobb vese	:	53.9 %

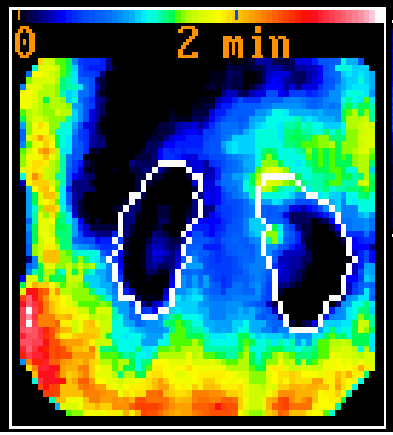
MAXIMUMIDÖ:

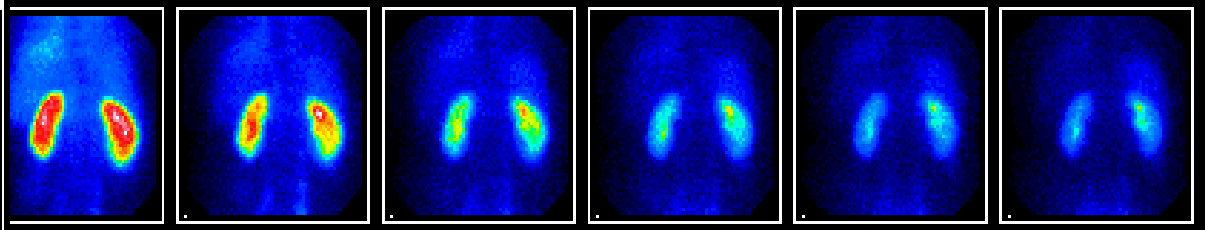
bal vese	:	2.167 min
jobb vese	:	1.833 min

FELEZÉSI IDÖ:

bal vese	:	7.339 "	0.222 min
jobb vese	:	8.729 "	0.280 min





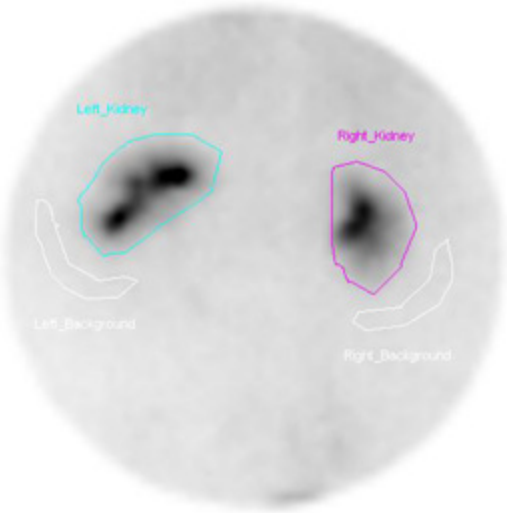


CL97026

Gates Analysis
Gates GFR Summary

gates_results

RENAL



RENAL
FULL

Pre-Injection Image



RENAL
EMPTY

Post-Injection Image

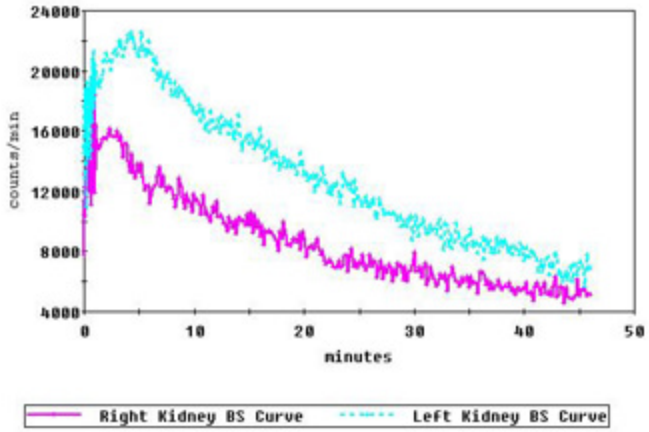
RENAL
FuncSum1

1-6 Minute Summed Image

Gates GFR Results

	Left	Right	Total
2-3 minute Count Total	20828	15783	36610
% Contribution	56.9	43.1	
GFR	77.2	58.5	135.6
Kidney Depth (cm) Tonnesen	11.6	11.7	
Normalized GFR			90.1
Mean Normal GFR for Age			104.0
Lower Limit Normal GFR for Age			80.0

Background Subtracted Kidney Curves



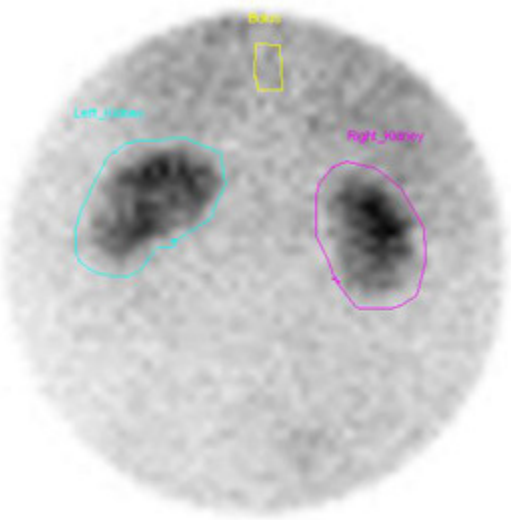
Patient Information

Height (cm)	165
Weight (kg)	136.0
Age (years)	45.0
Isotope	DTPA
Dose Injected (mCi)	12.00
Transplant	NO
No Lasix	

Gates Analysis
Perfusion Summary

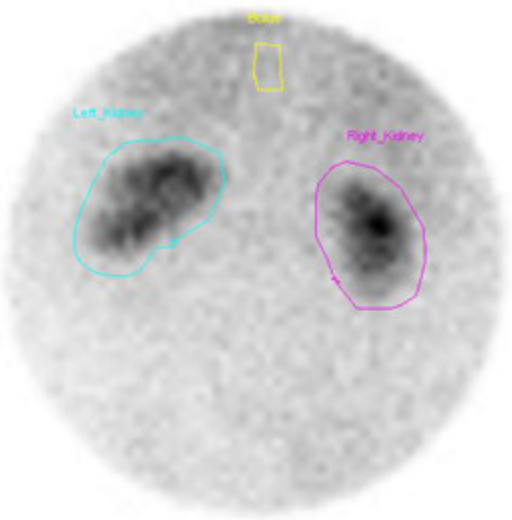
gates_results

RENAL



RENAL
PerfSum1

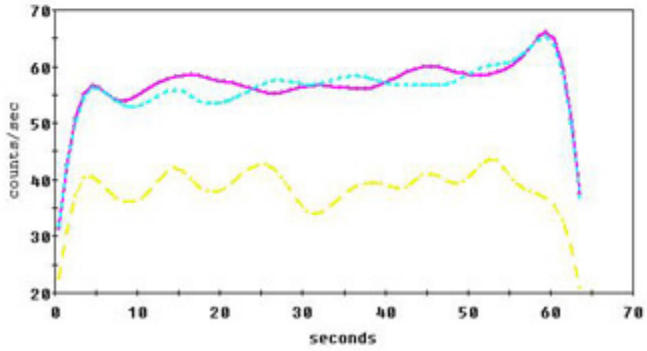
0-30 Second Summed Image



RENAL
PerfSum2

30-60 Second Summed Image

Normalized Perfusion Curves

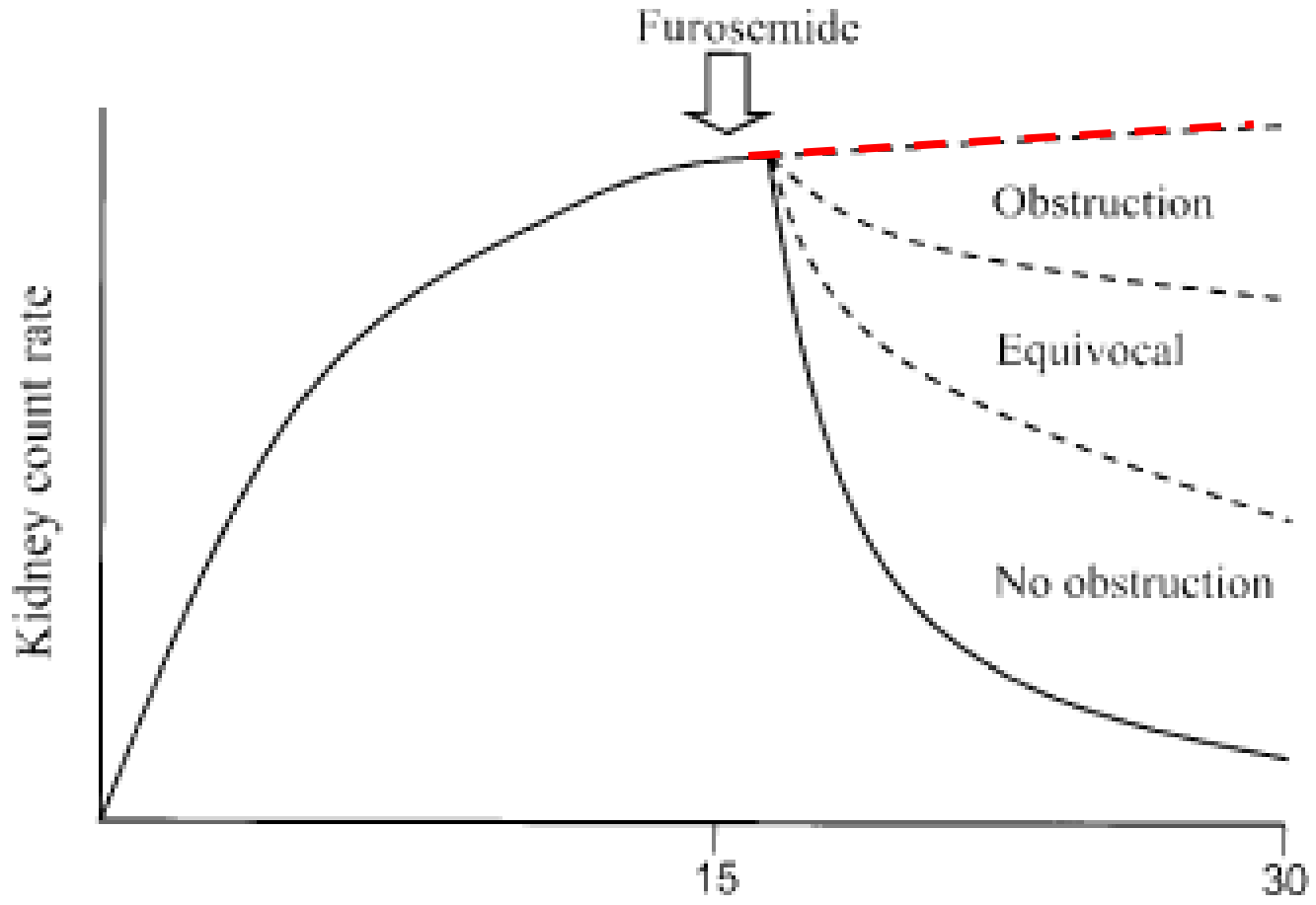


Patient Information

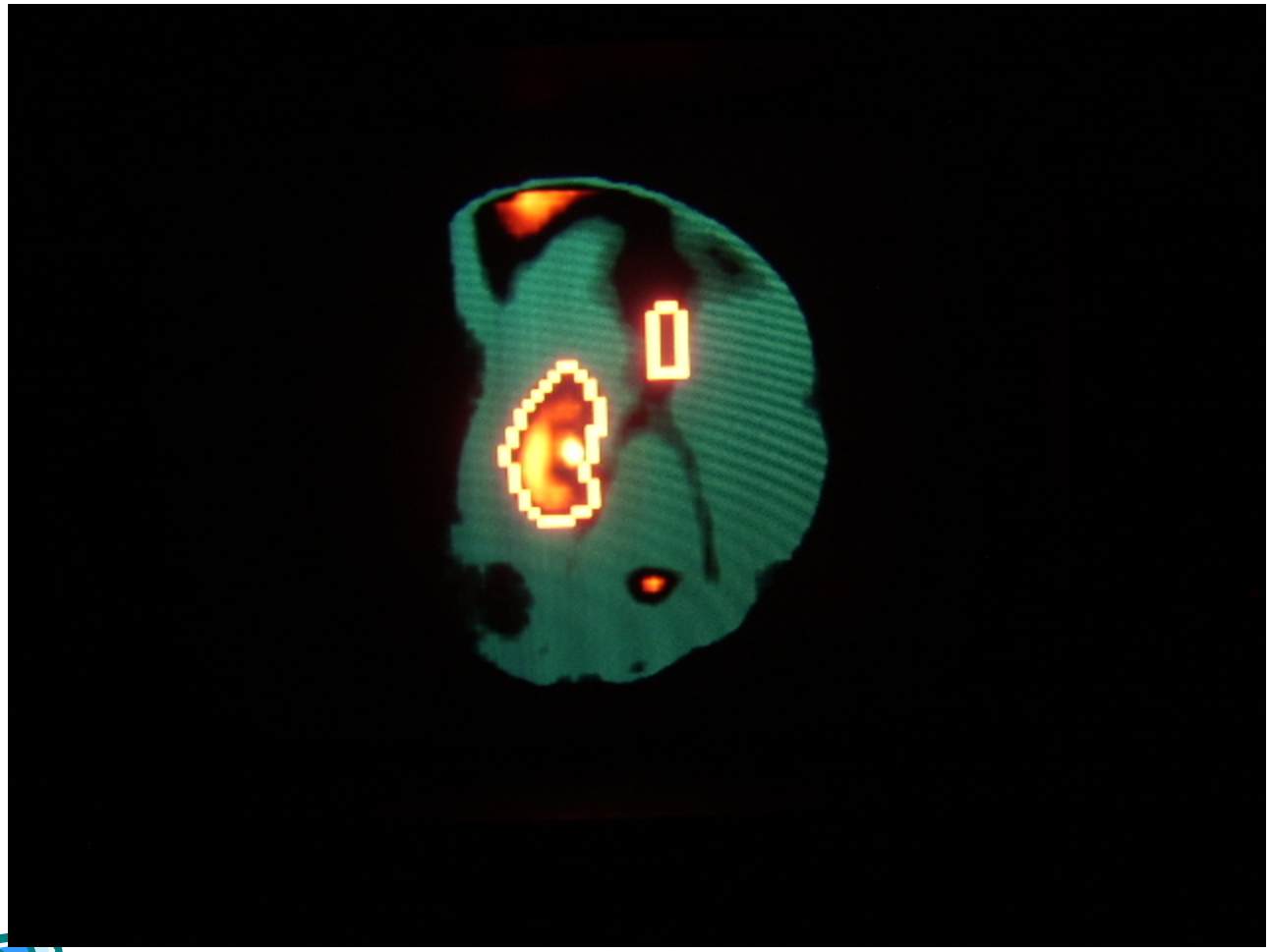
Height (cm)	165
Weight (kg)	136.0
Age (years)	45.0
Isotope	DTPA
Dose Injected (mCi)	12.00
Transplant	NO
No Lasix	

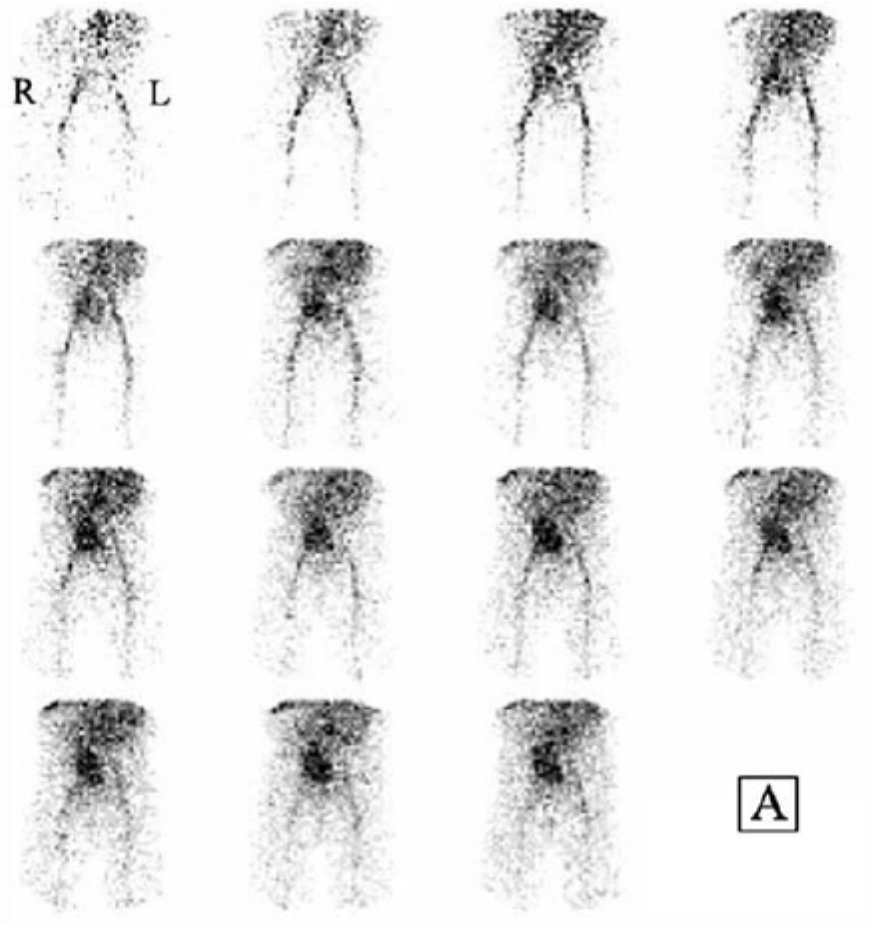
Perfusion Results

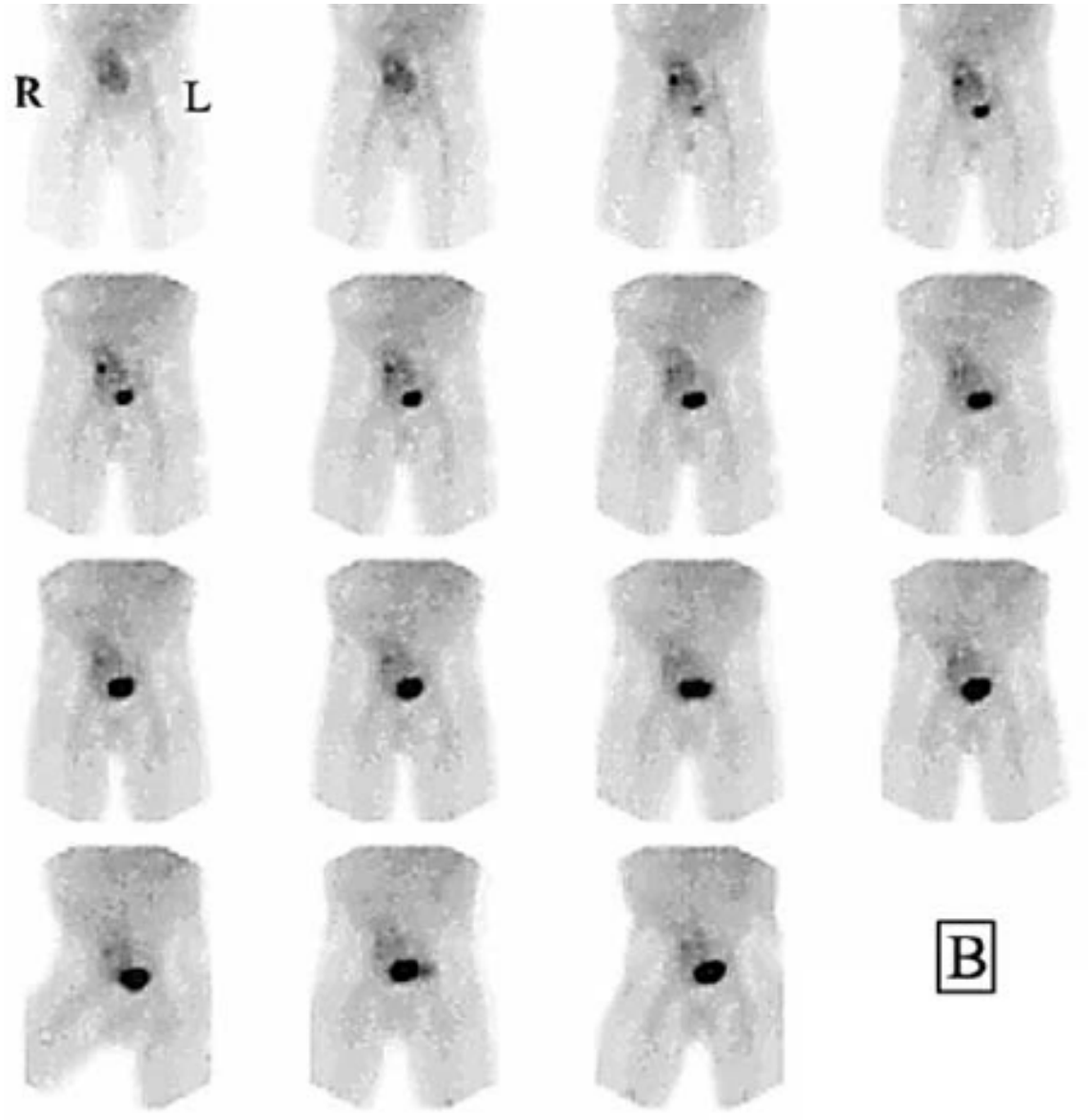
Right perfusion index:	68.8
Left perfusion index:	69.8


Furosemide
Obstruction
Equivocal
No obstruction
Kidney count rate
15
30

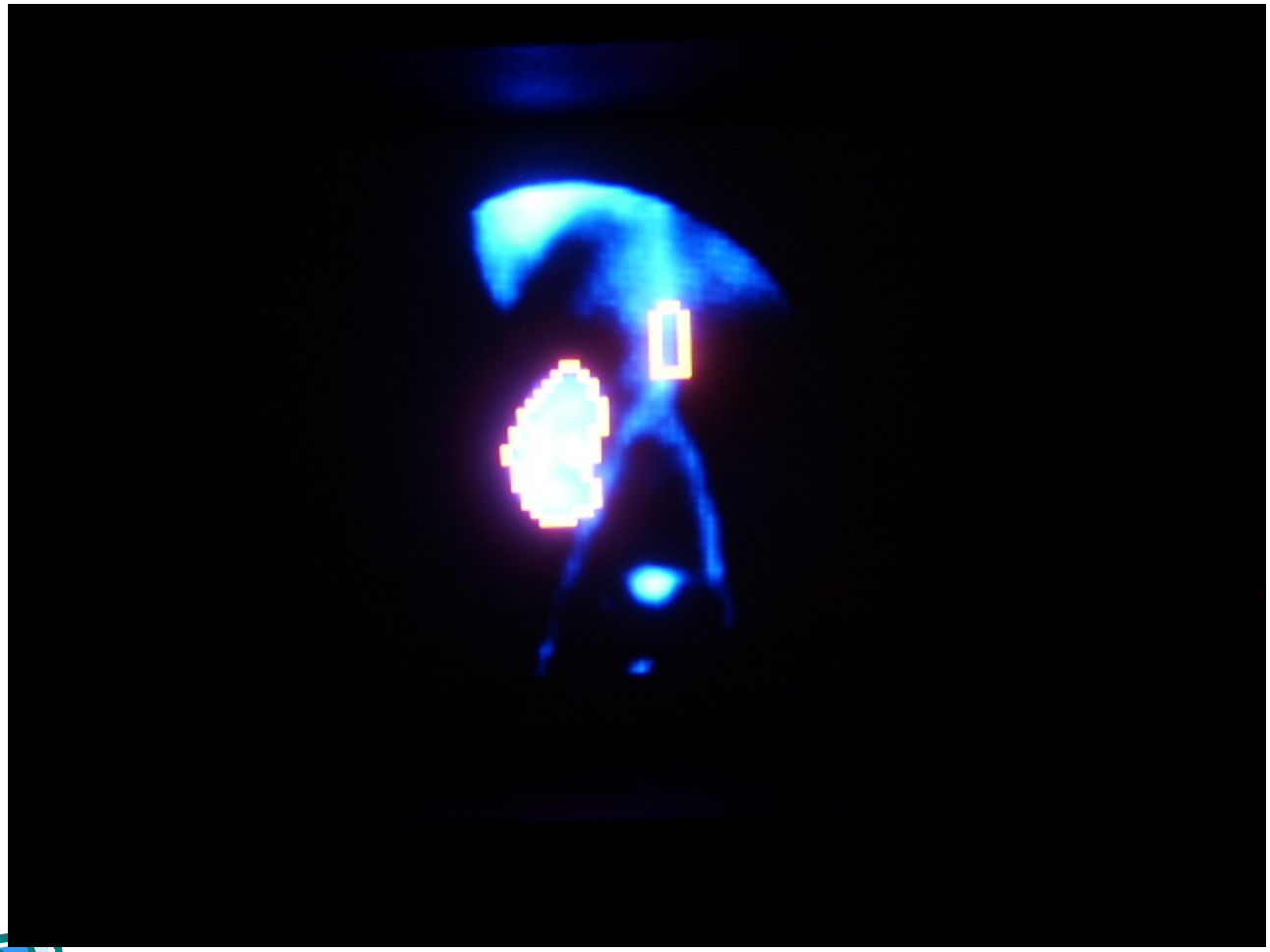


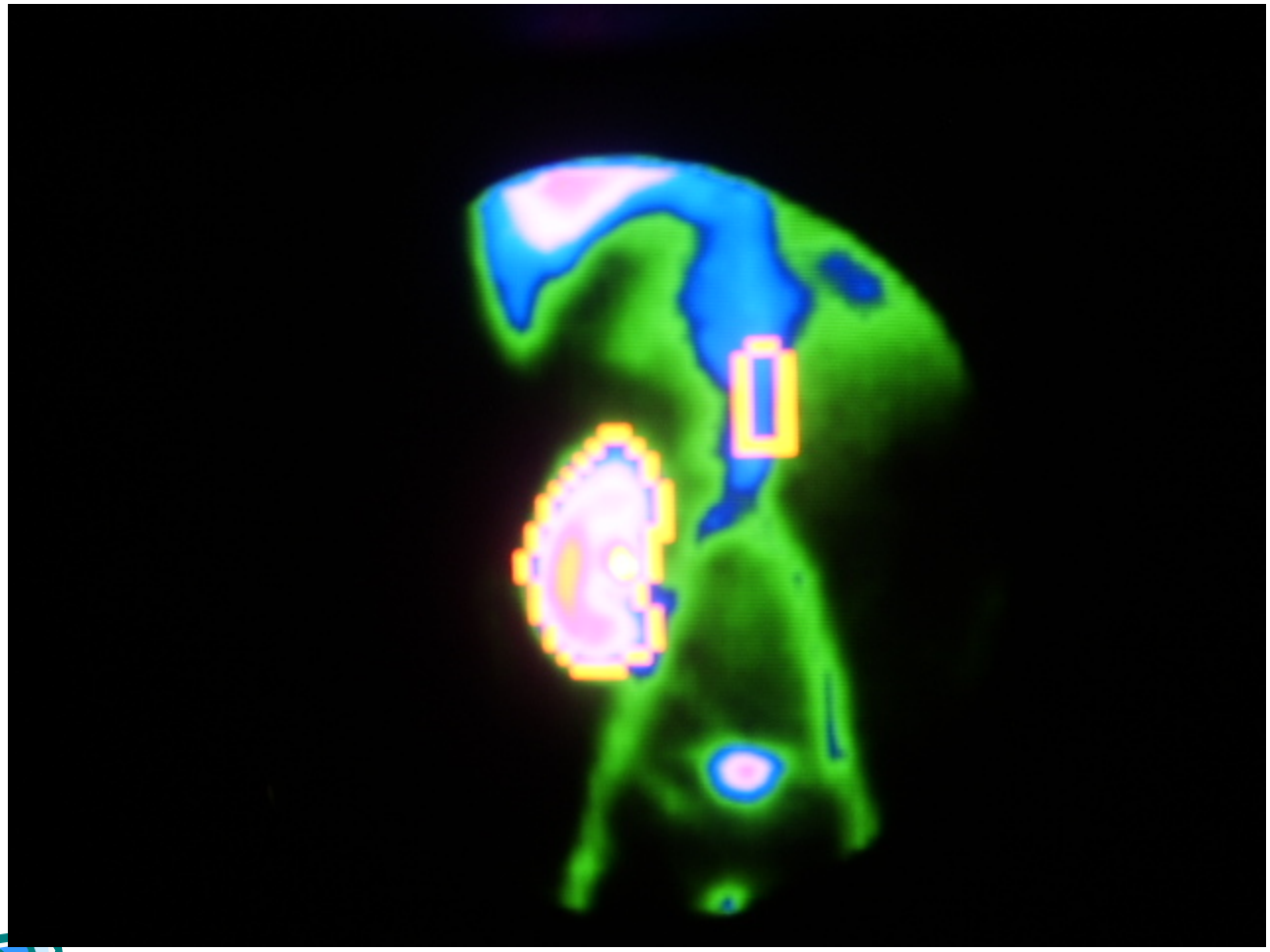


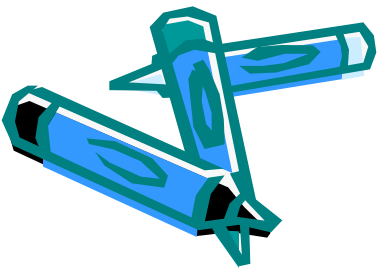

R
L
A

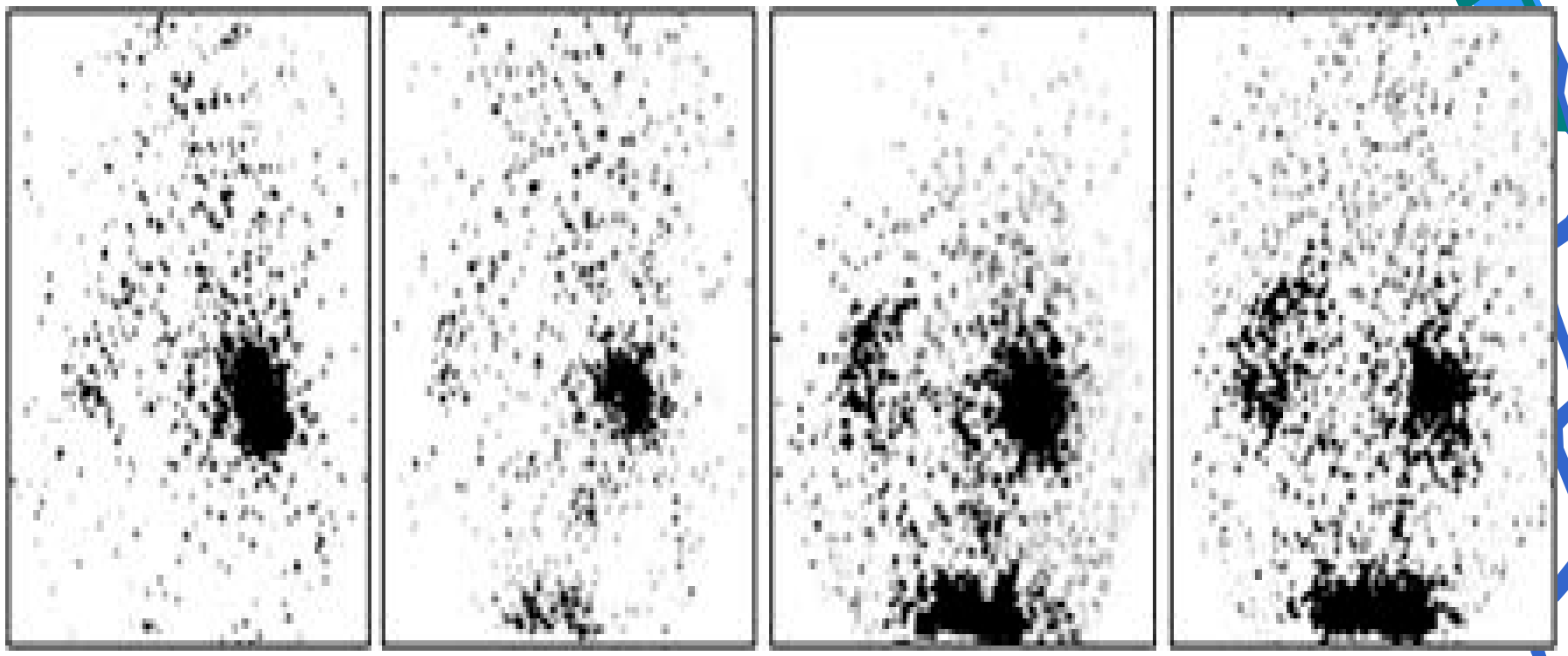


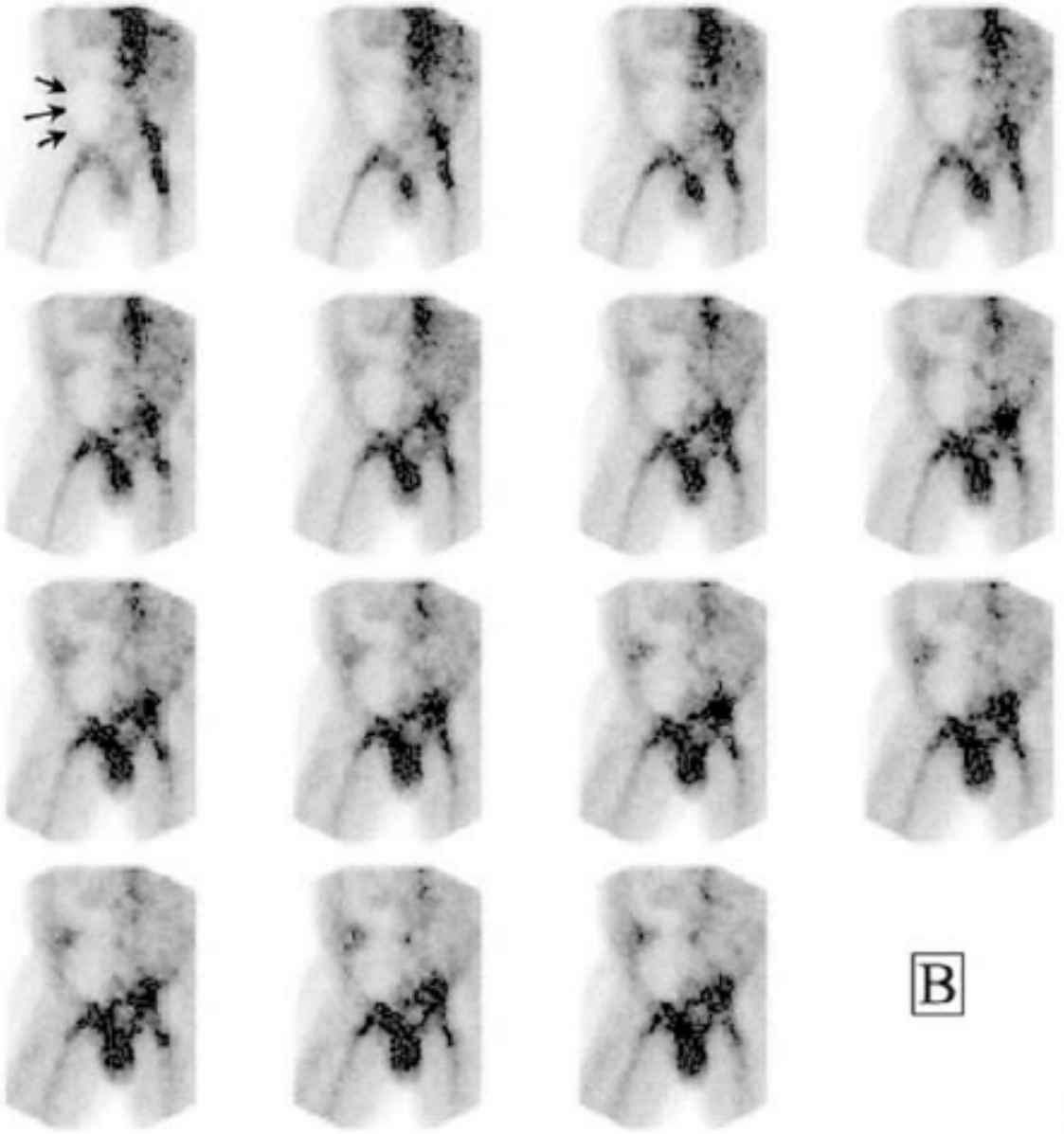
Sekvencijalni scintigrami transplatiranog bubrega sa radiofarmakom u bešici (1 frejm 60 s na 1.5 min)



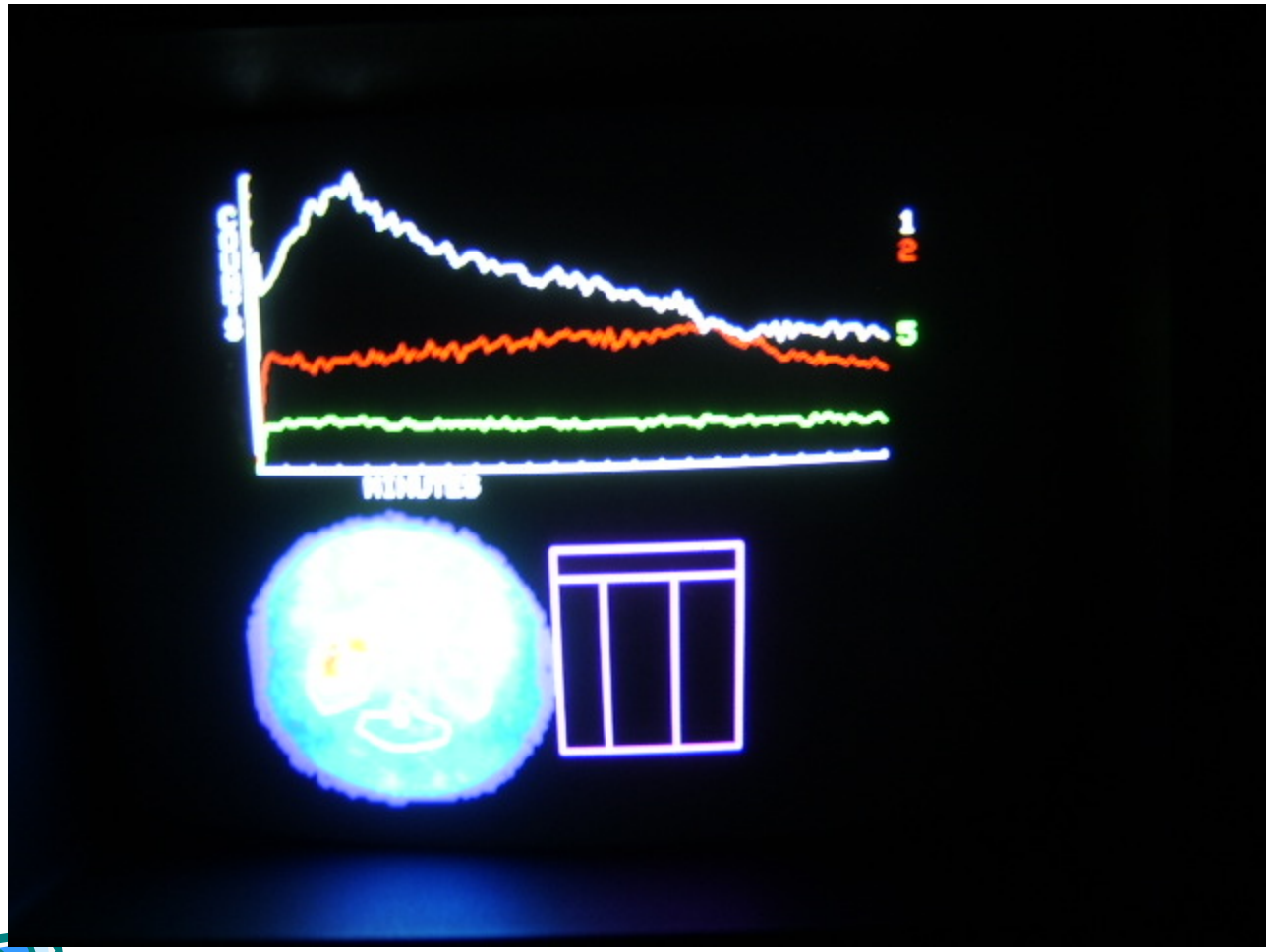


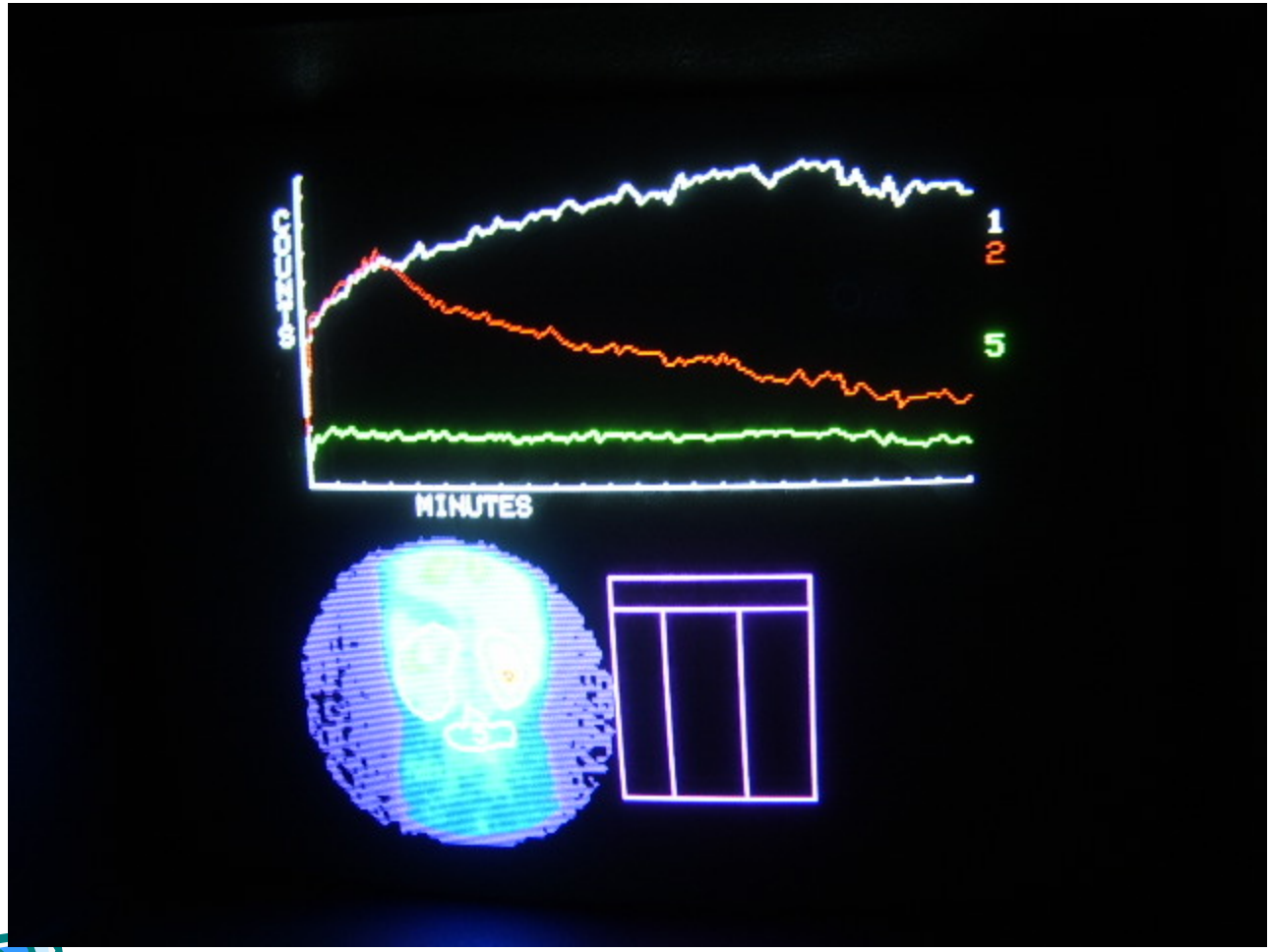


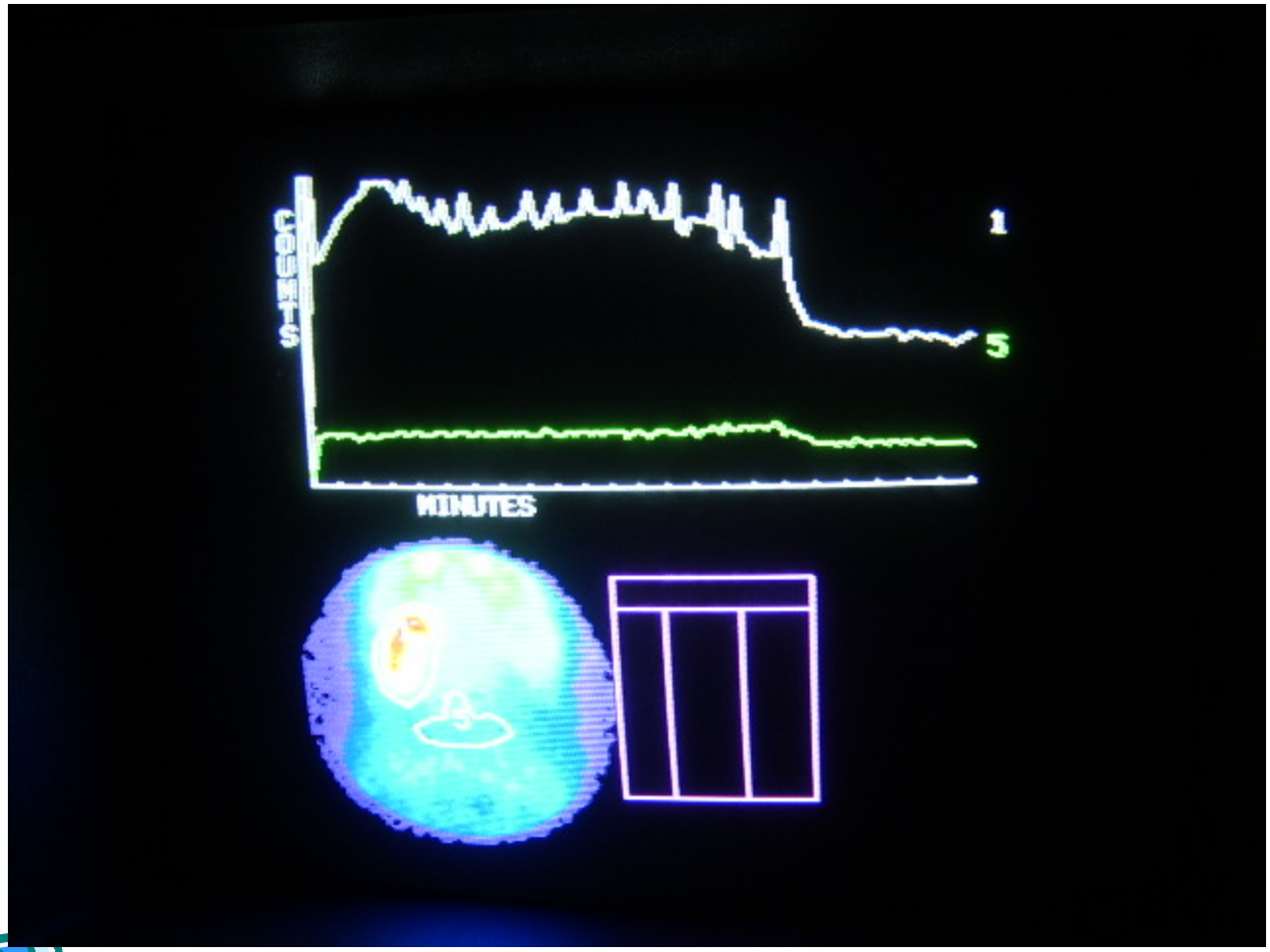


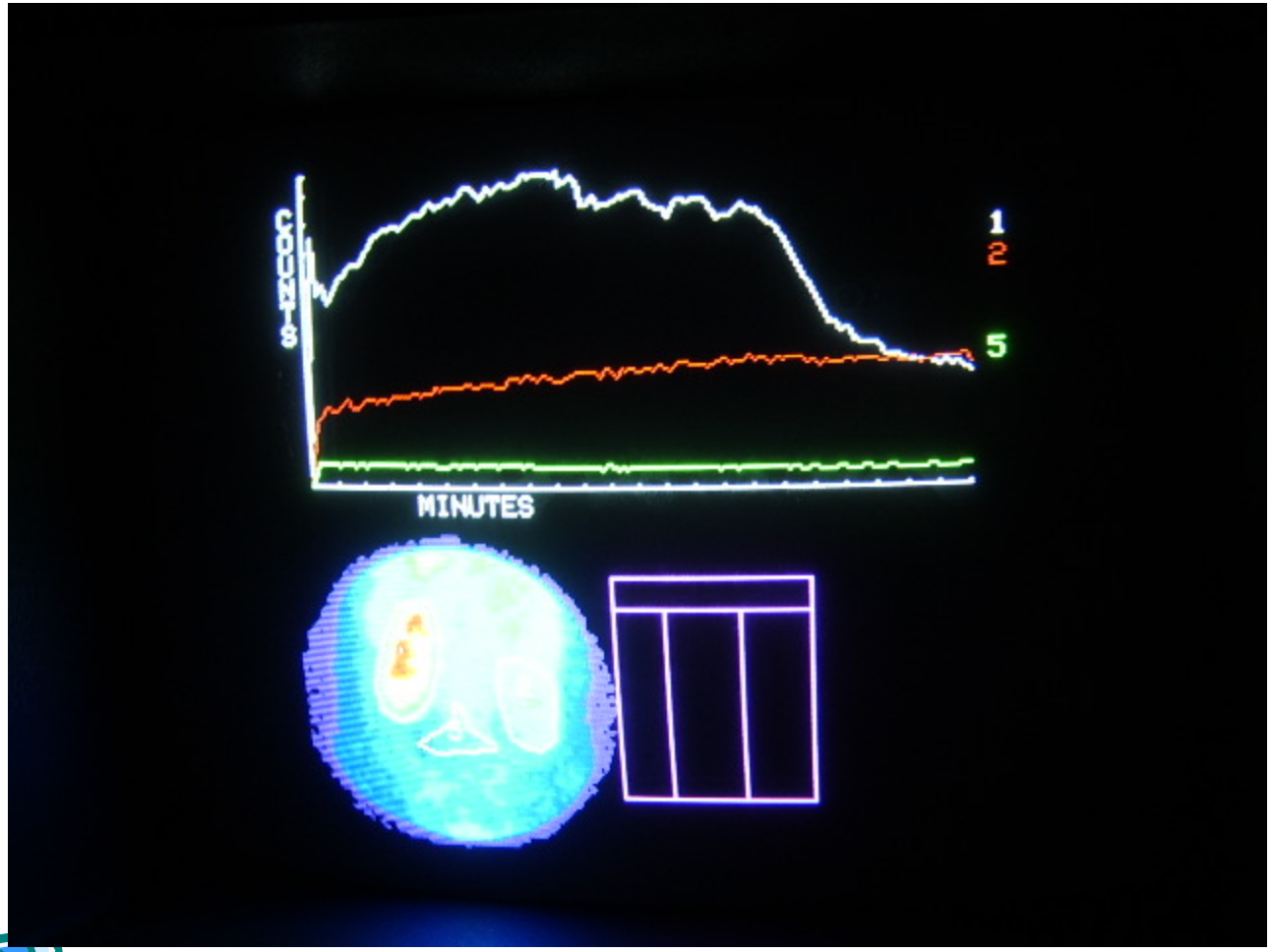


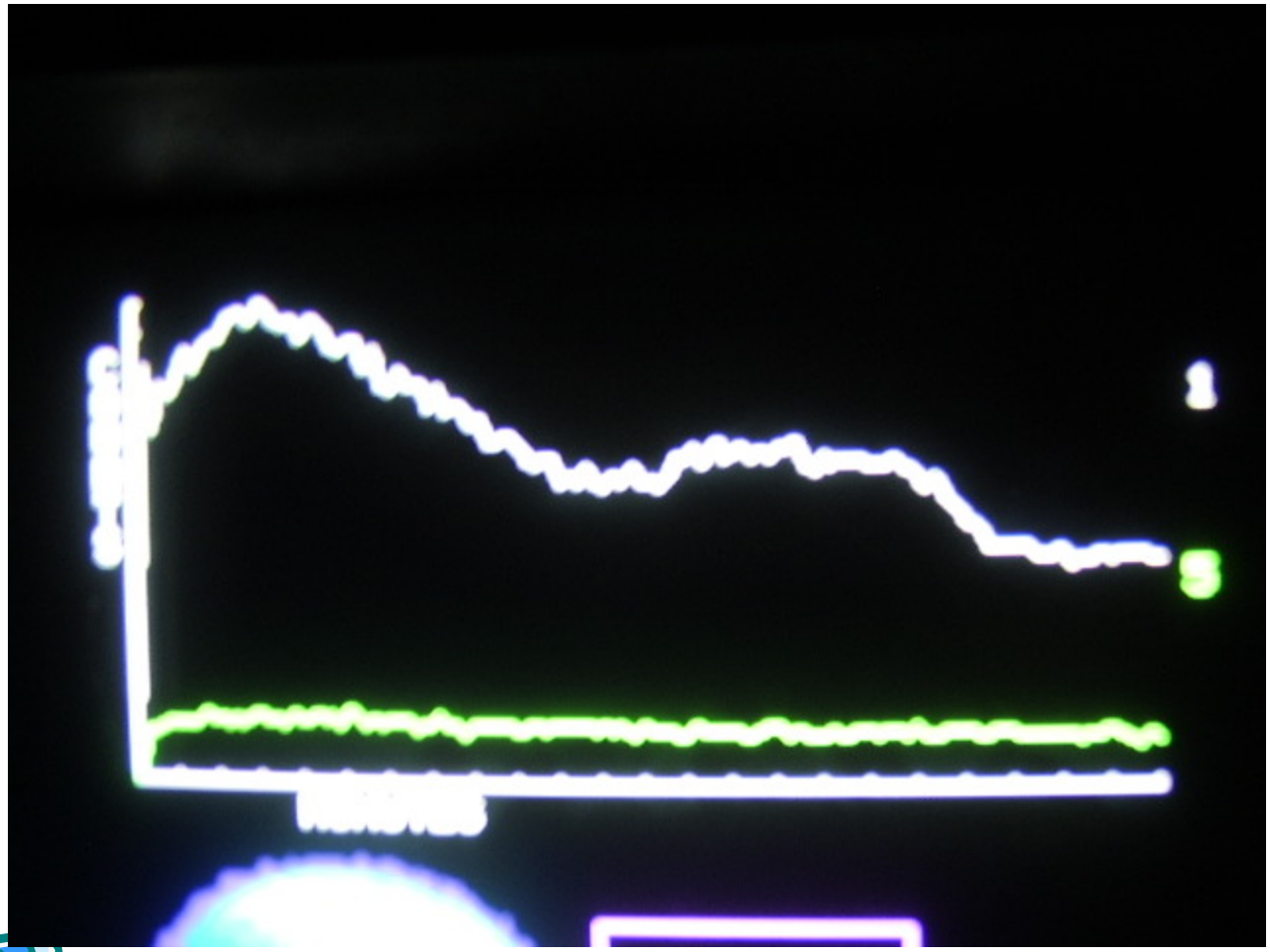
Afuncijski transplantirani bubreg

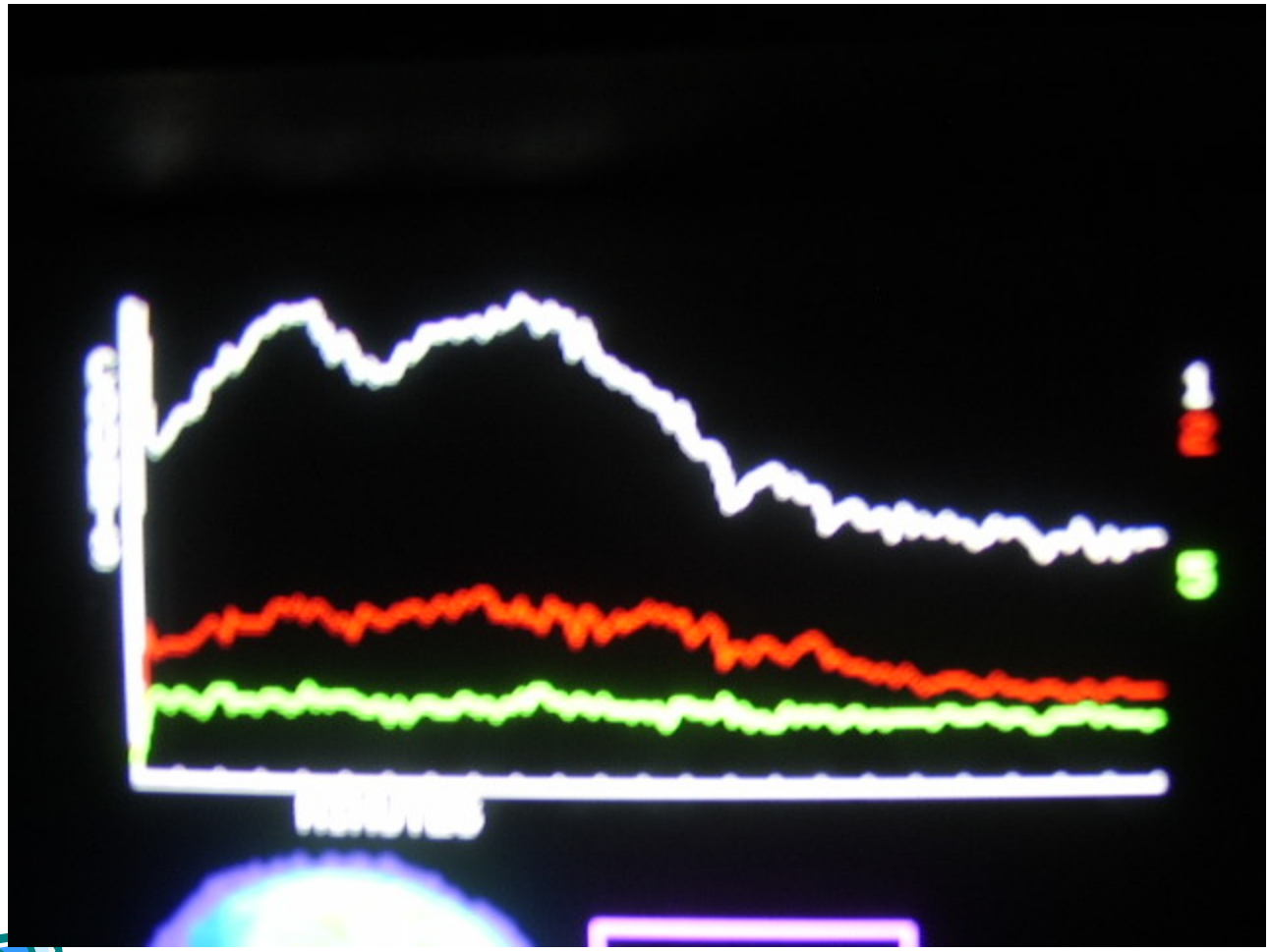

1
2
5


1
2
5
MINUTES


COUNTS
1
5
MINUTES


1
2
5
MINUTES



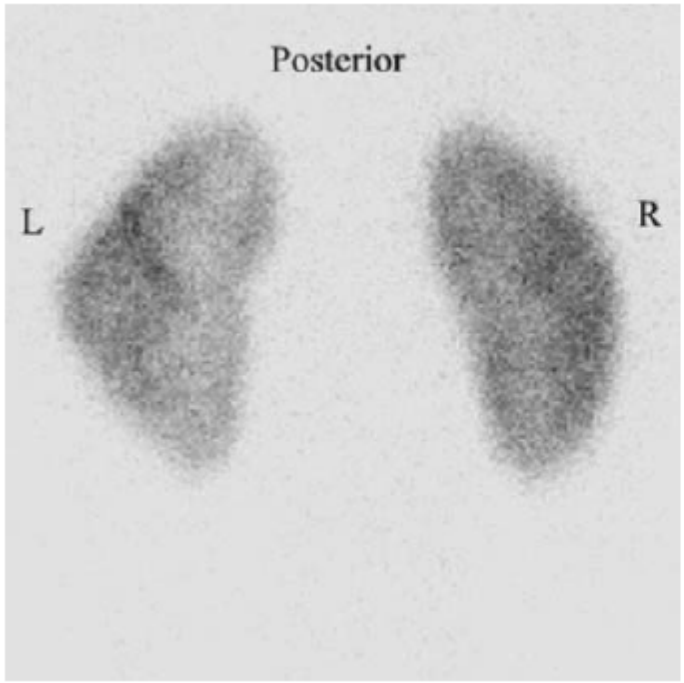


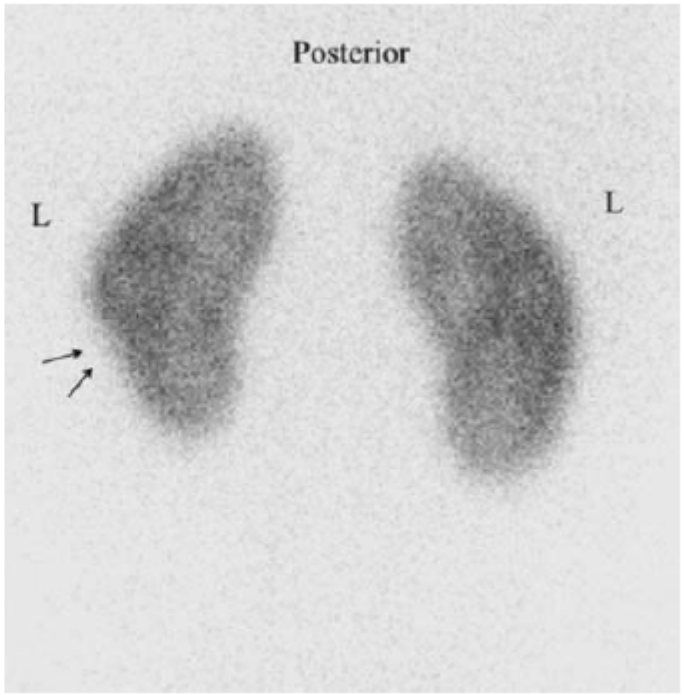
Indikacije za statičku sc. bubrega

Anomalije

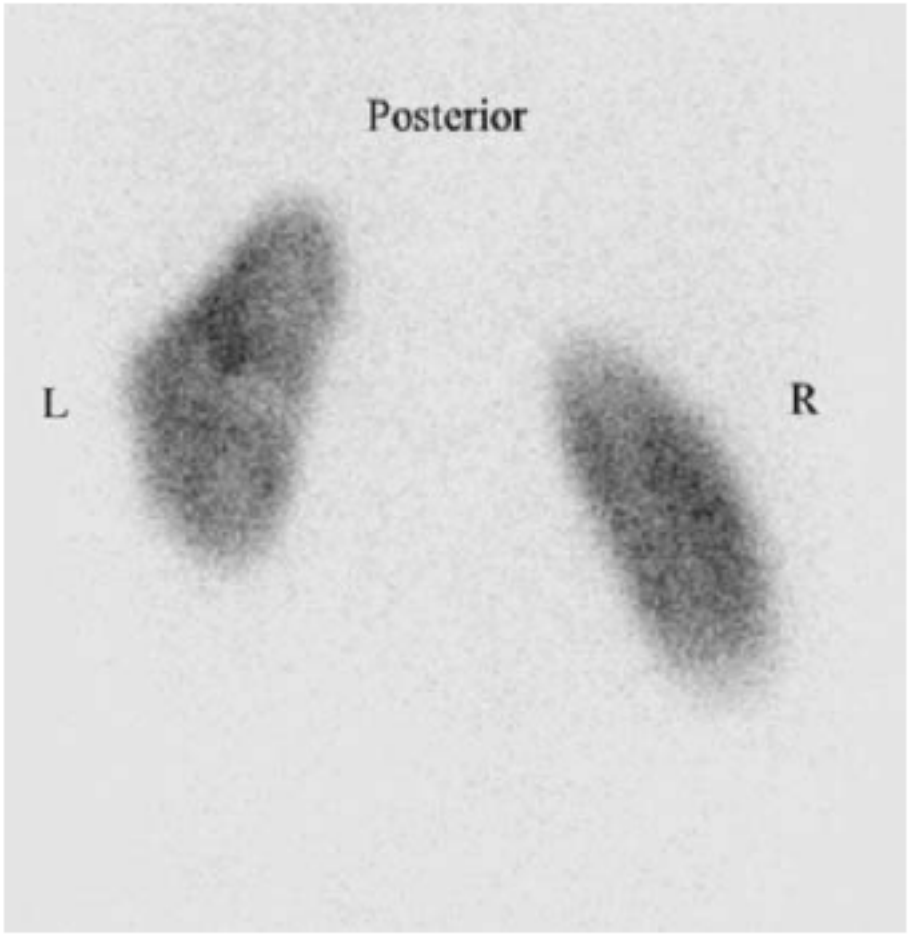
- položaja
- veličine
- oblika
- strukture

- infarkt bubrega
- radiološki nemi bubreg
- pijelinefritični bubreg
- ITU
- fokusni defekti parenhima





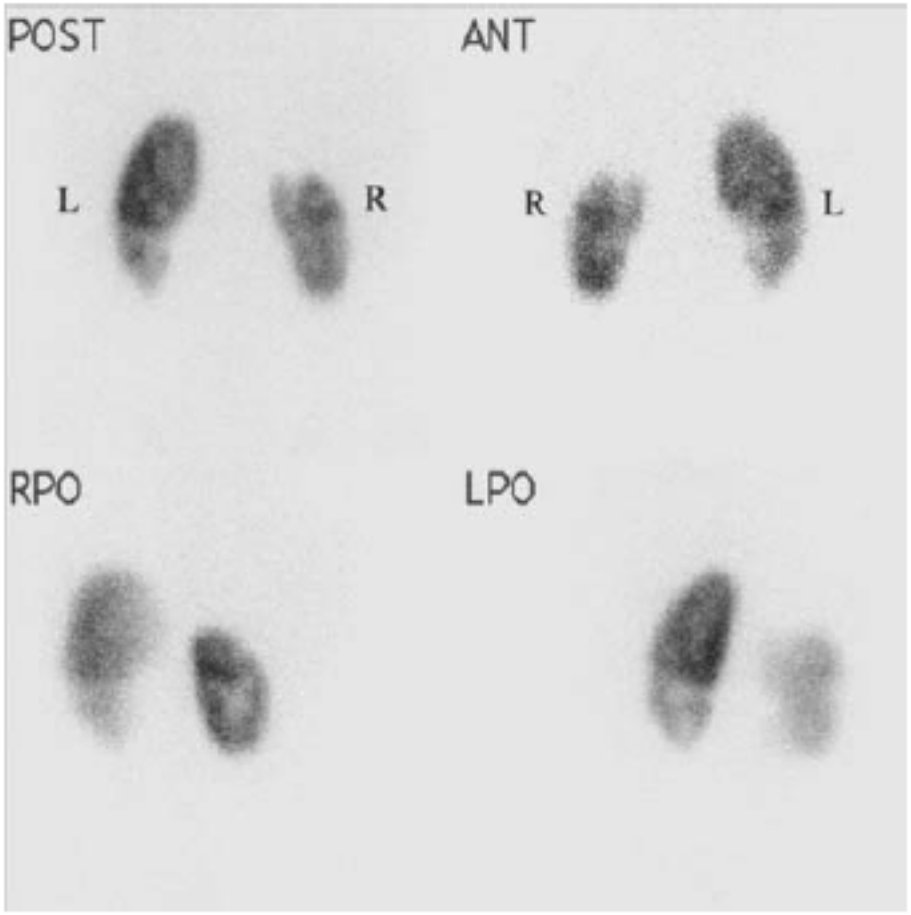
DMSA scintigrafija kod 8-godišnje i 3-godišnje devojčice (→ fetalna lobulacija je normalna varijanta)



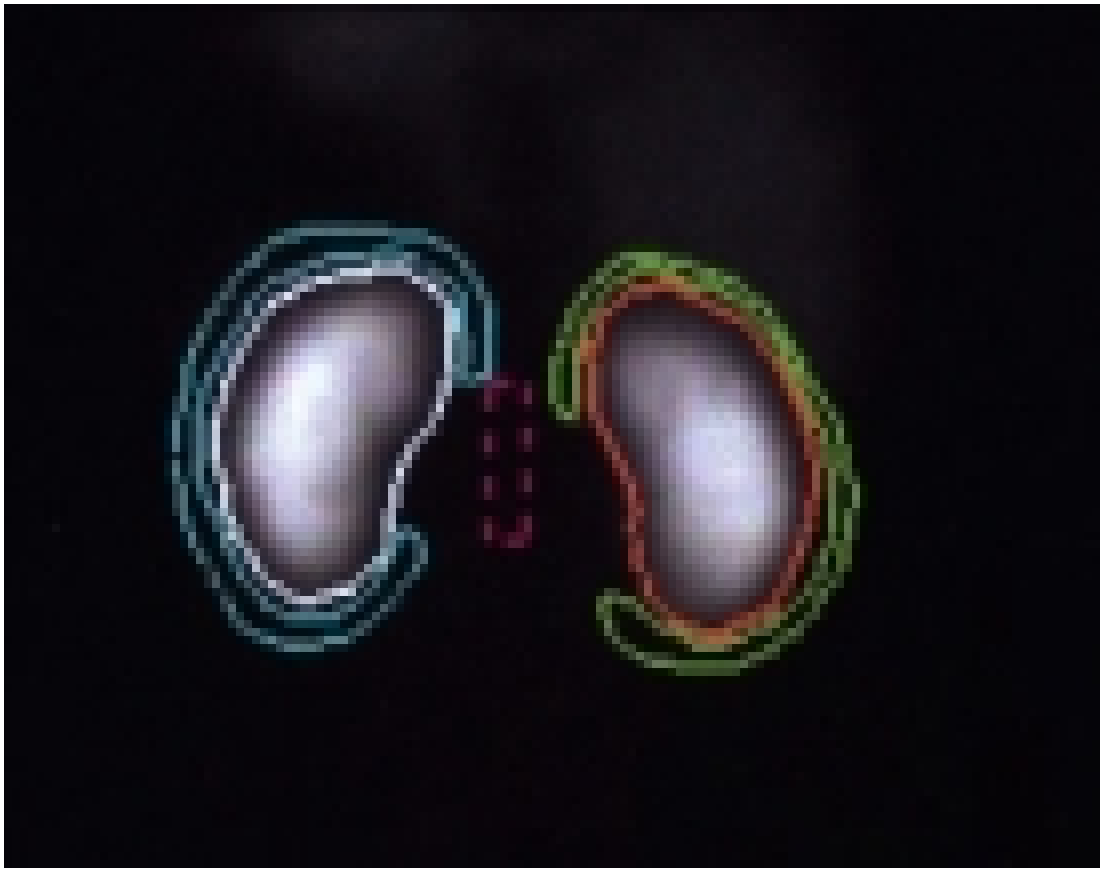
„Kompresiija“ (slezina) gornjeg pola levog bubrega
(normalna varijanta)

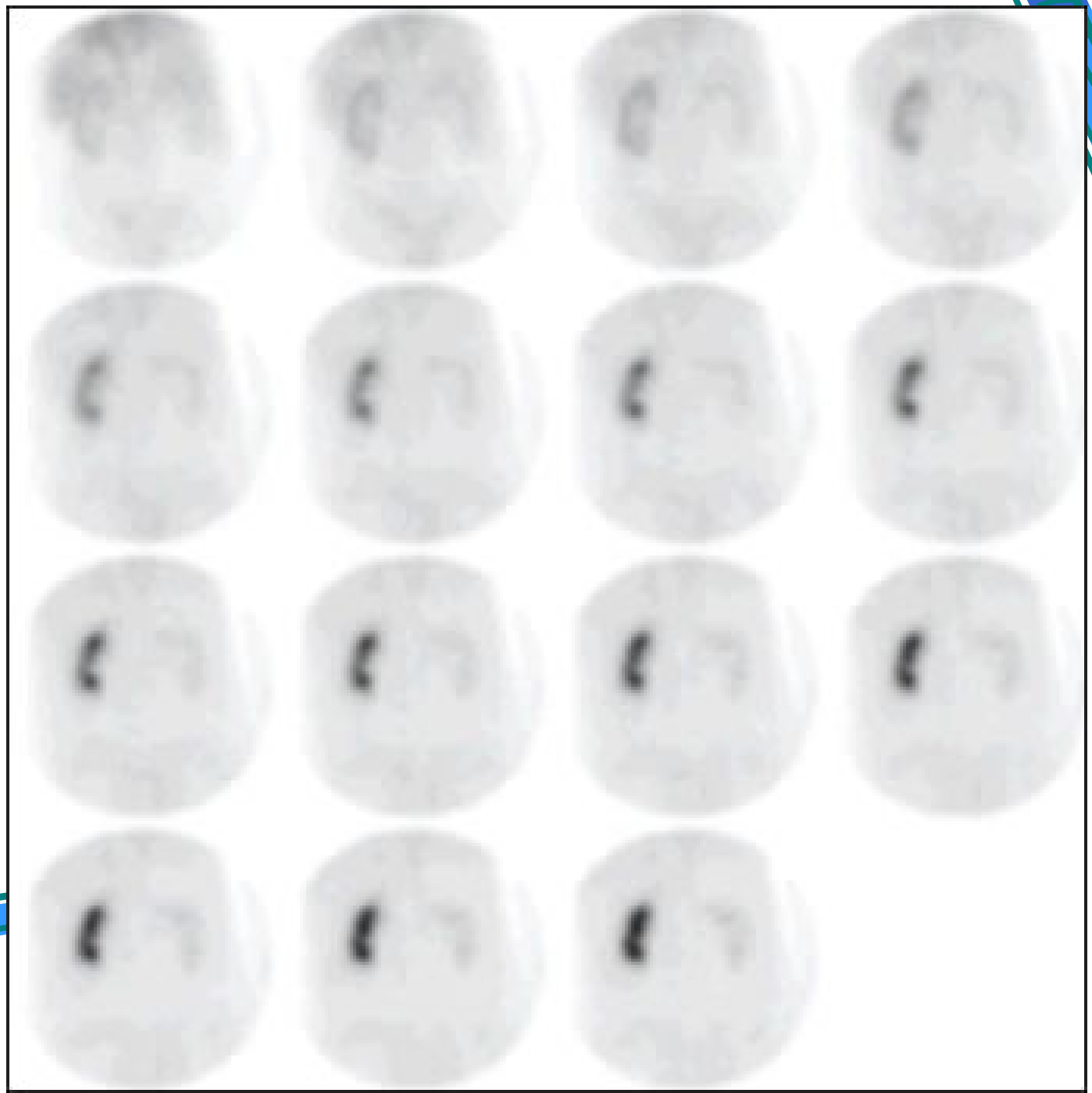


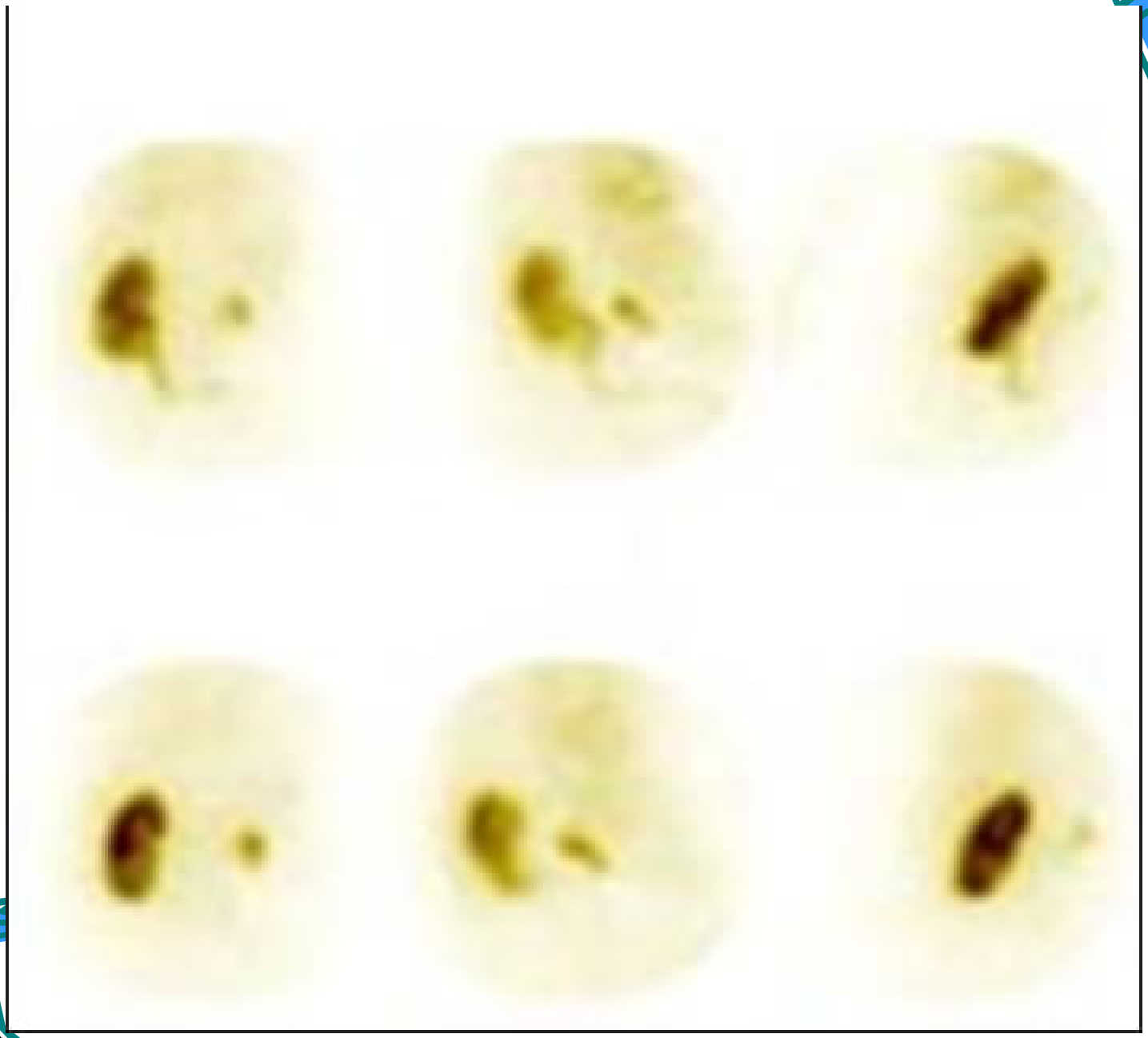


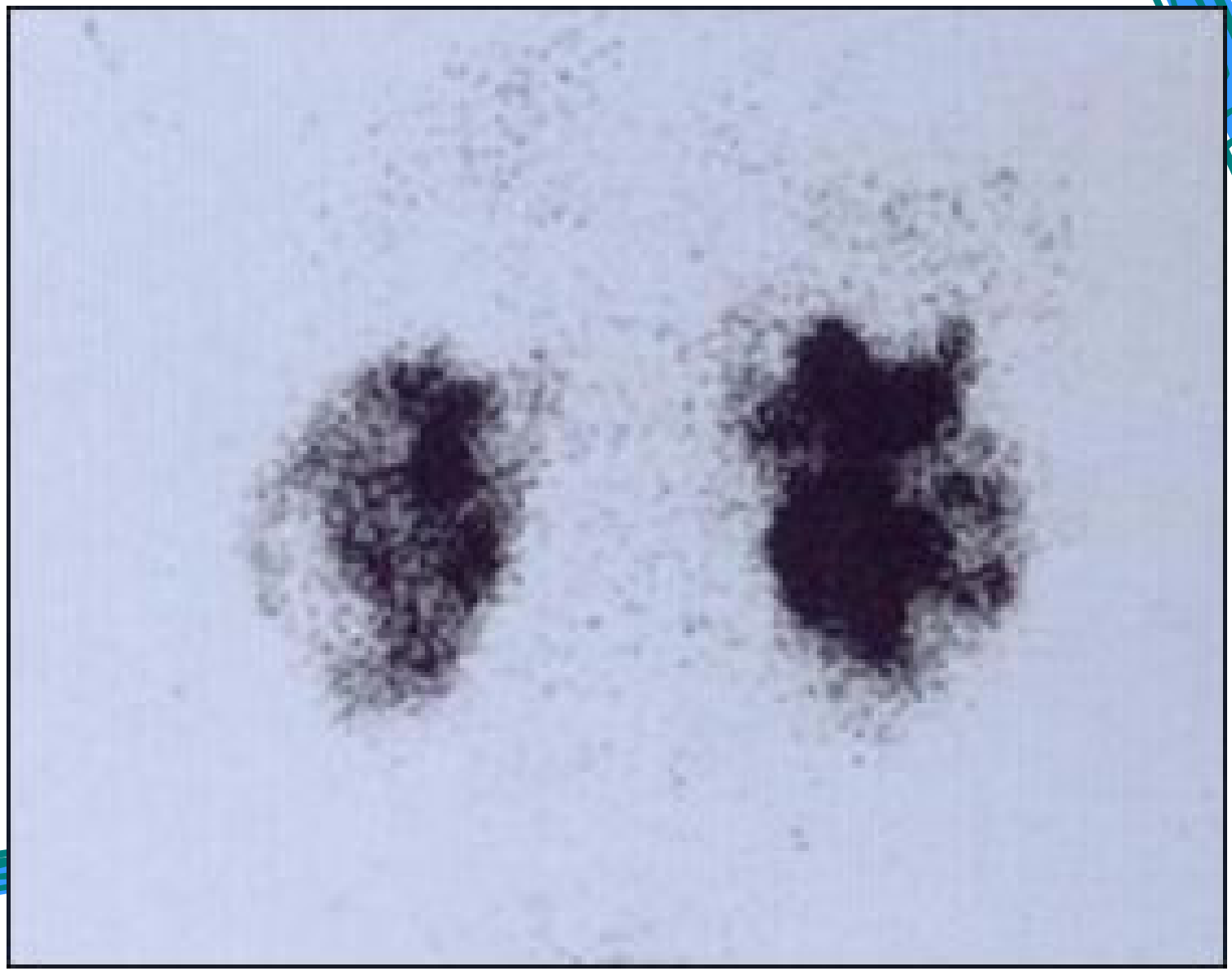


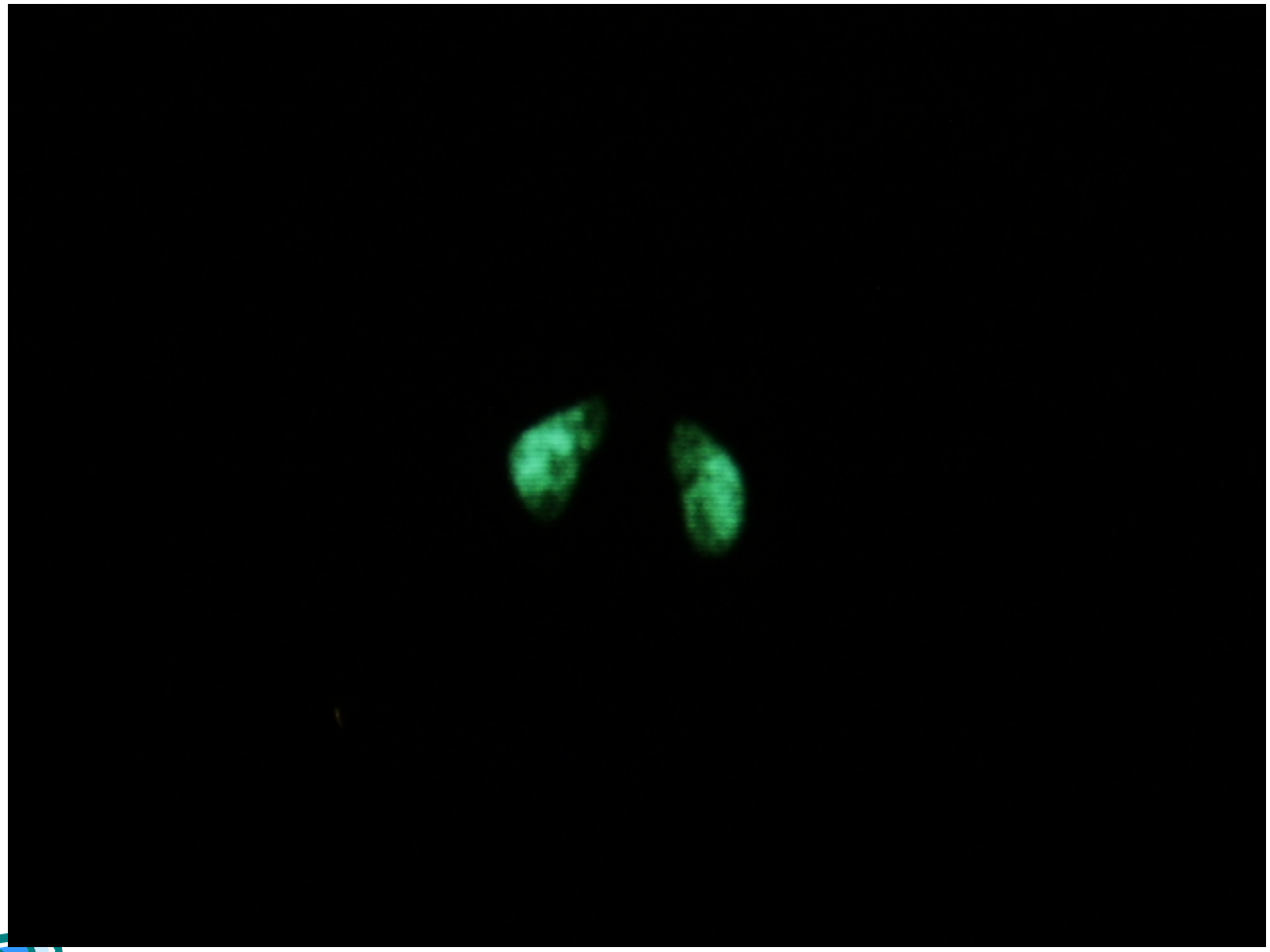
Mali desni bubreg sa defektom u kranijalnom polu; kaudalni pol levog bubrega izrazito smanjenog vezivanja Tc99m-DMSA(13-godišnji dečak sa obostranim refluksom i IUT)

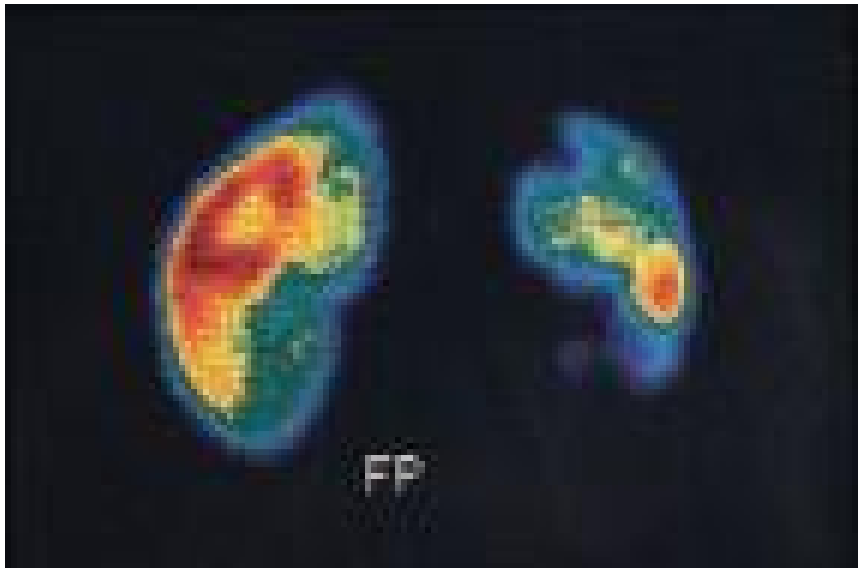






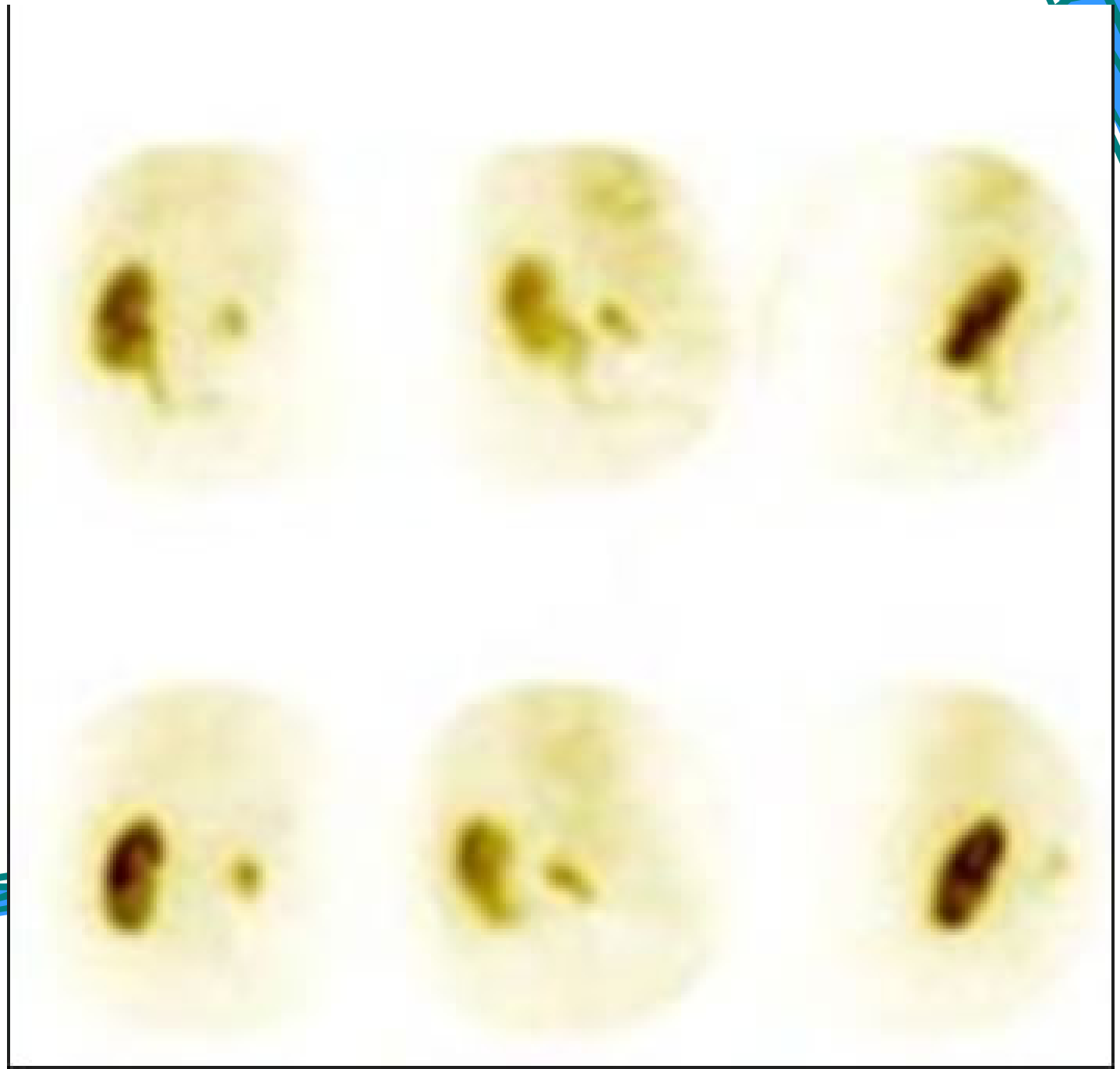


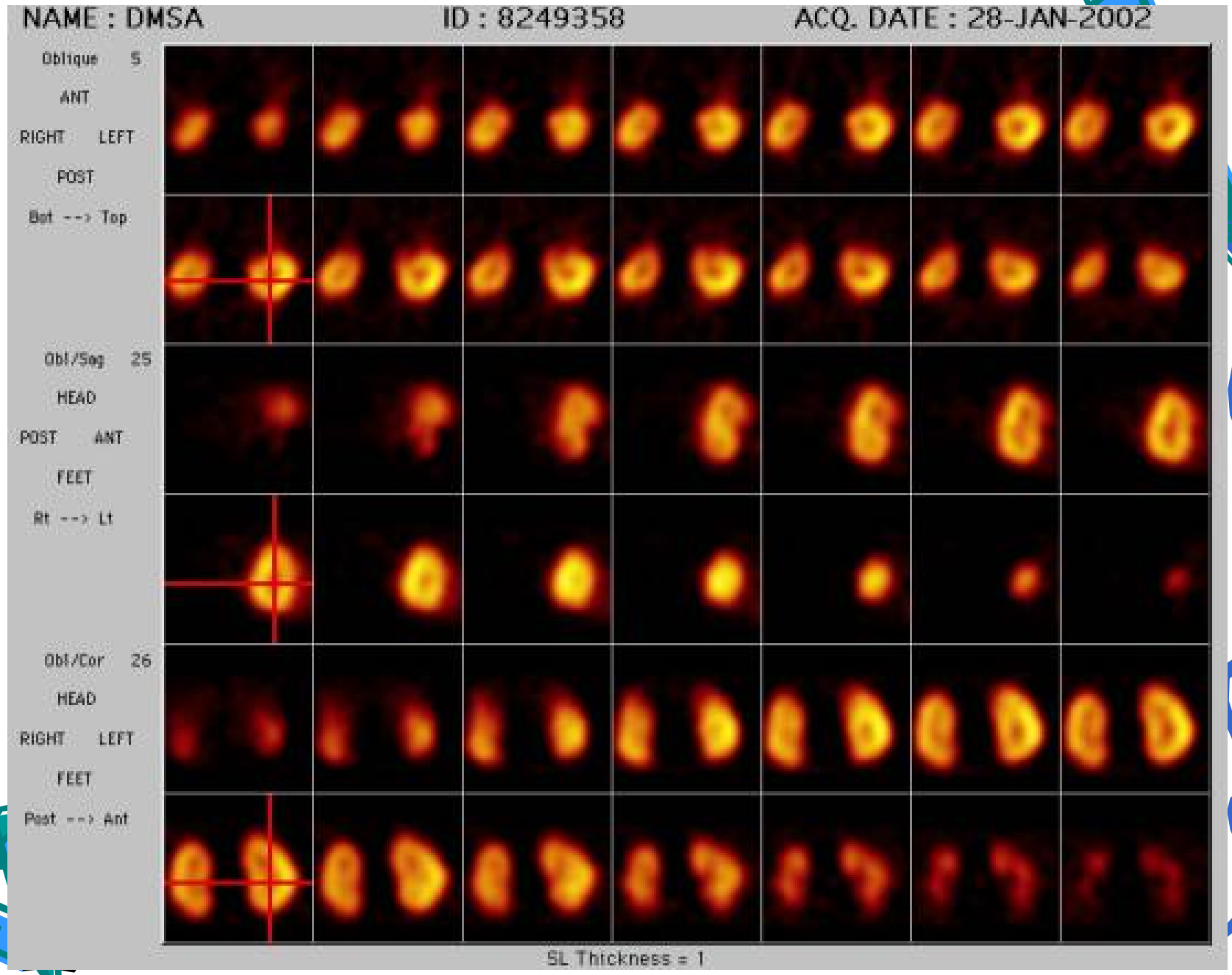



FP


Posterior






NAME : DMSA
ID : 8249358
ACQ. DATE : 28-JAN-2002
Oblique 5
ANT
RIGHT LEFT
POST
Bot --> Top
Obl/Sag 25
HEAD
POST ANT
FEET
Rt --> Lt
Obl/Cor 26
HEAD
RIGHT LEFT
FEET
Post --> Ant
SL Thickness = 1

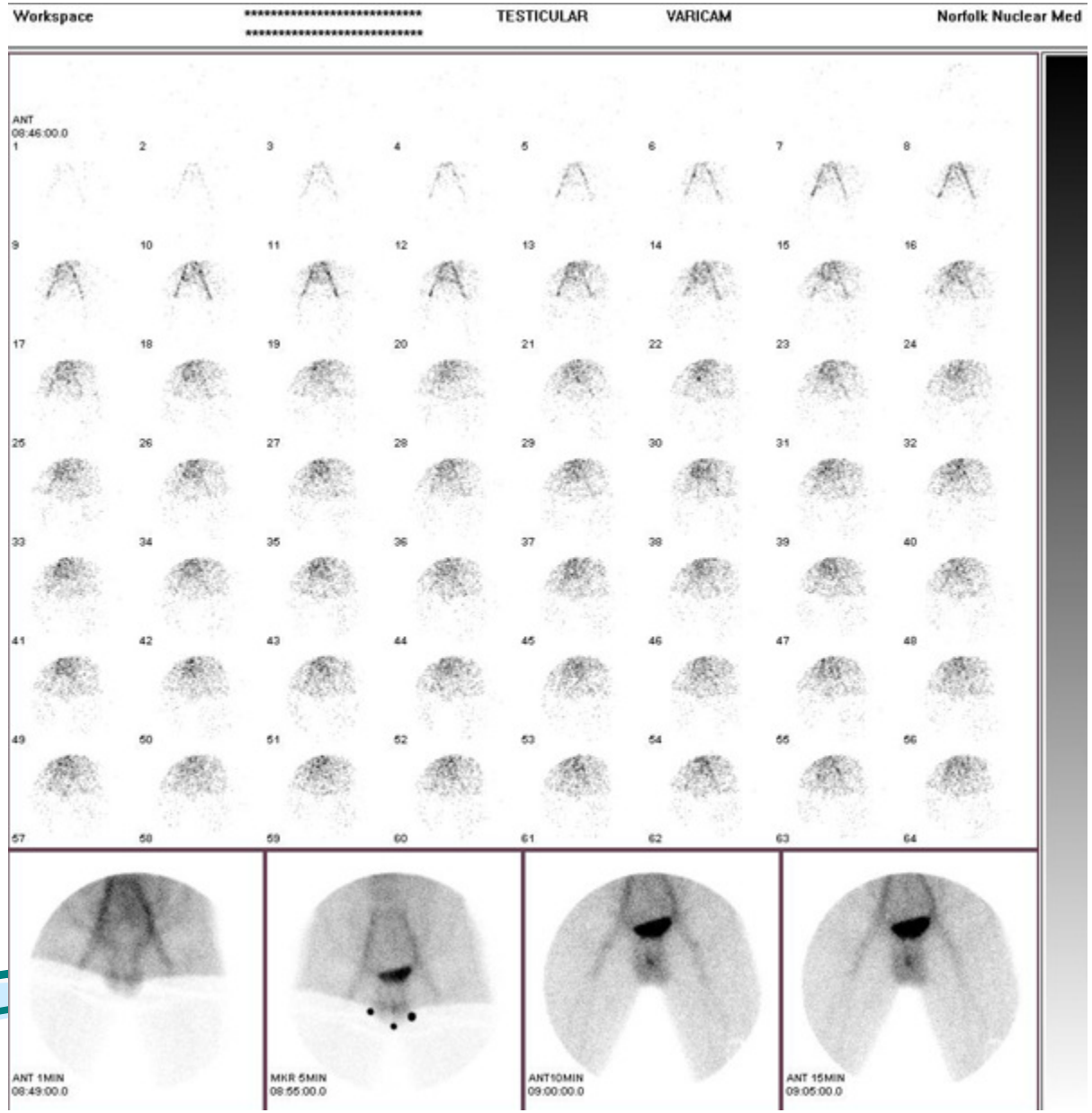
scintigrafija skrotuma

- Protokol metode

angiografska dinamska studija po i.v aplikaciji 185 do 555MBq Tc^{99m} pertehnetata

dinamska studija u 1min (sličice 2do 5 sec.)

statička studija posle 20 minuta


Workspace
TESTICULAR
VARICAM
Norfolk Nuclear Med
ANT
08:46:00.0
ANT 1MIN
08:49:00.0
MKR 5MIN
08:55:00.0
ANT10MIN
09:00:00.0
ANT 15MIN
09:05:00.0

