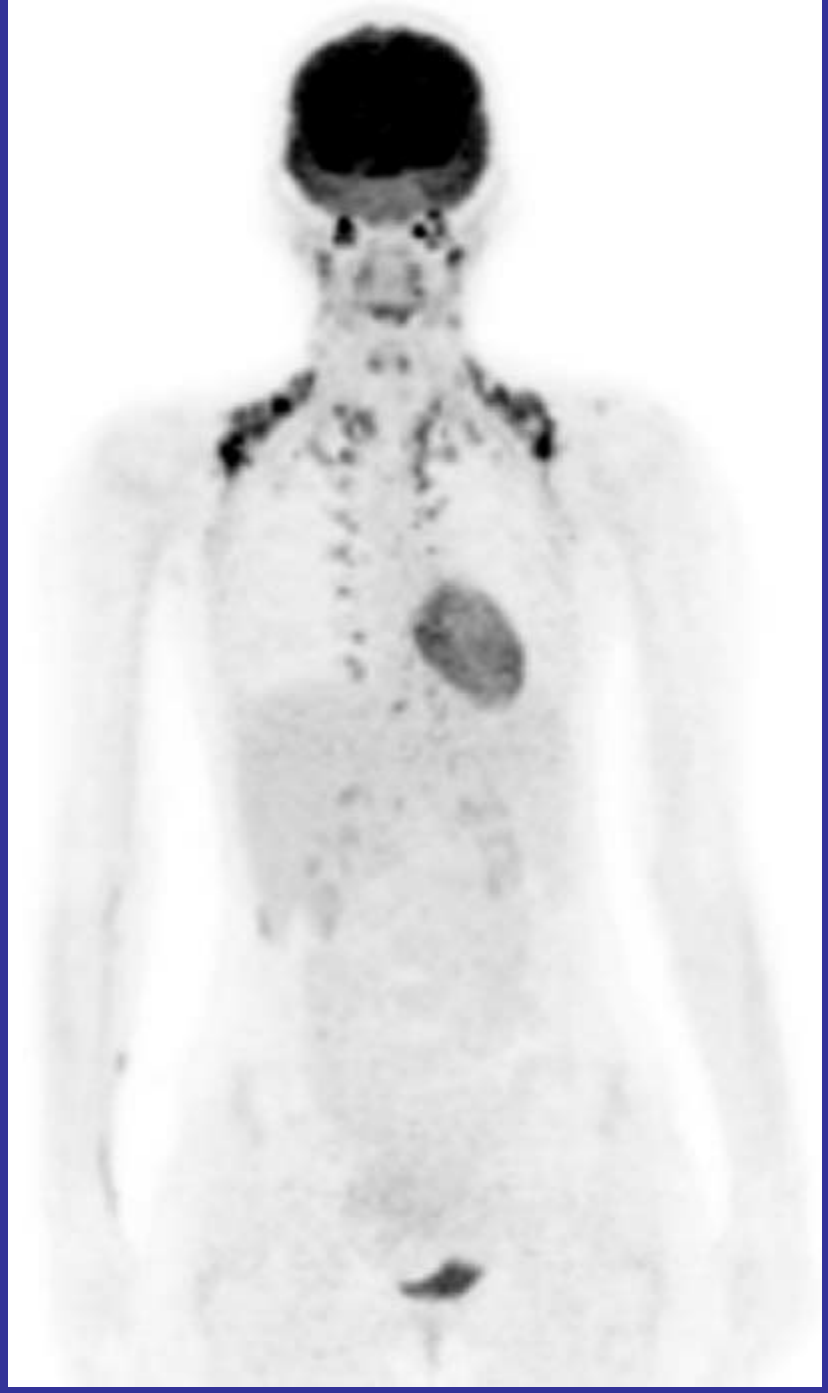
priprema pacijenta:

- gladovanje 4 do 6 sati
  - smanjuje nivo insulina i na taj način smanjuje preuzimanje FDGa ćelijama masnog tkiva i mišićnim ćelijama
  - smanjuje miokardnu aktivnost (jasniji pregled medijastinuma)
- uzdržavanje od povećane fizičke aktivnosti 24 sata pre snimanja
- aktivnost u braon masnom tkuvu (supraklavikularno i paraspinalno) može da se smanji davanjem benzodiazepina 30 - 60 min pre injekcije FDG
- pacijent treba da bude dobro hidriran

Mesta normalnog nakupljanja FDG

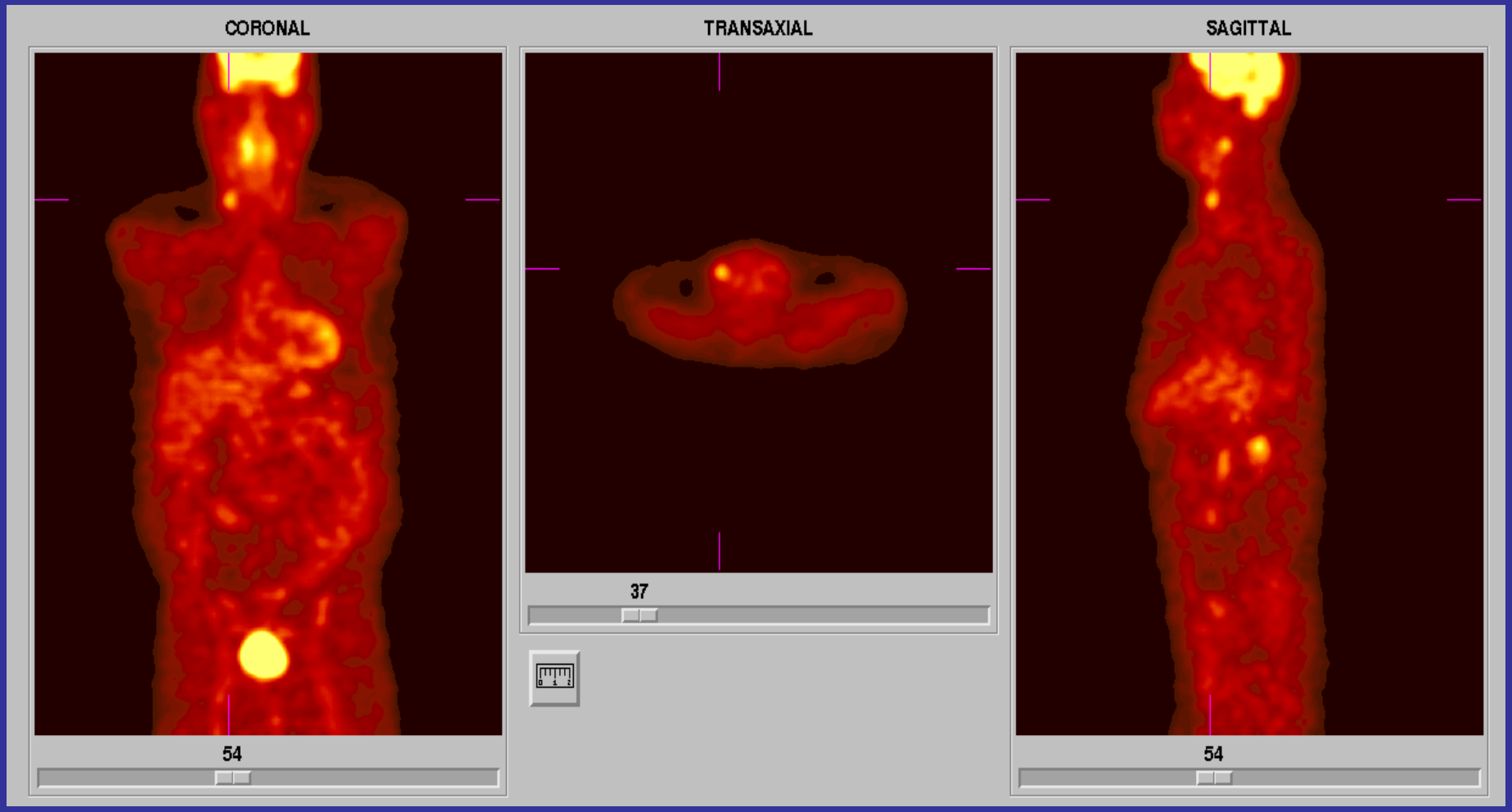
- **moždana kora**
- **bazalne ganglije**
- **talamus**
- **limfno tkivo vrata**
- **Valdejerev prsten** (umereno simetrično nakupljanje)
- **tireoideja** se **ne** vidi (osim u Hašimoto tireoiditisu)
- **laringealni mišići** ako pacijent govori po injekciji FDGa
- **miokard**
- lako nakupljanje u **plućima**
- lako i homogeno nakupljanje u **jetri, slezini** i **koštanoj srži**



GLAVA I VRAT

Glava i vrat

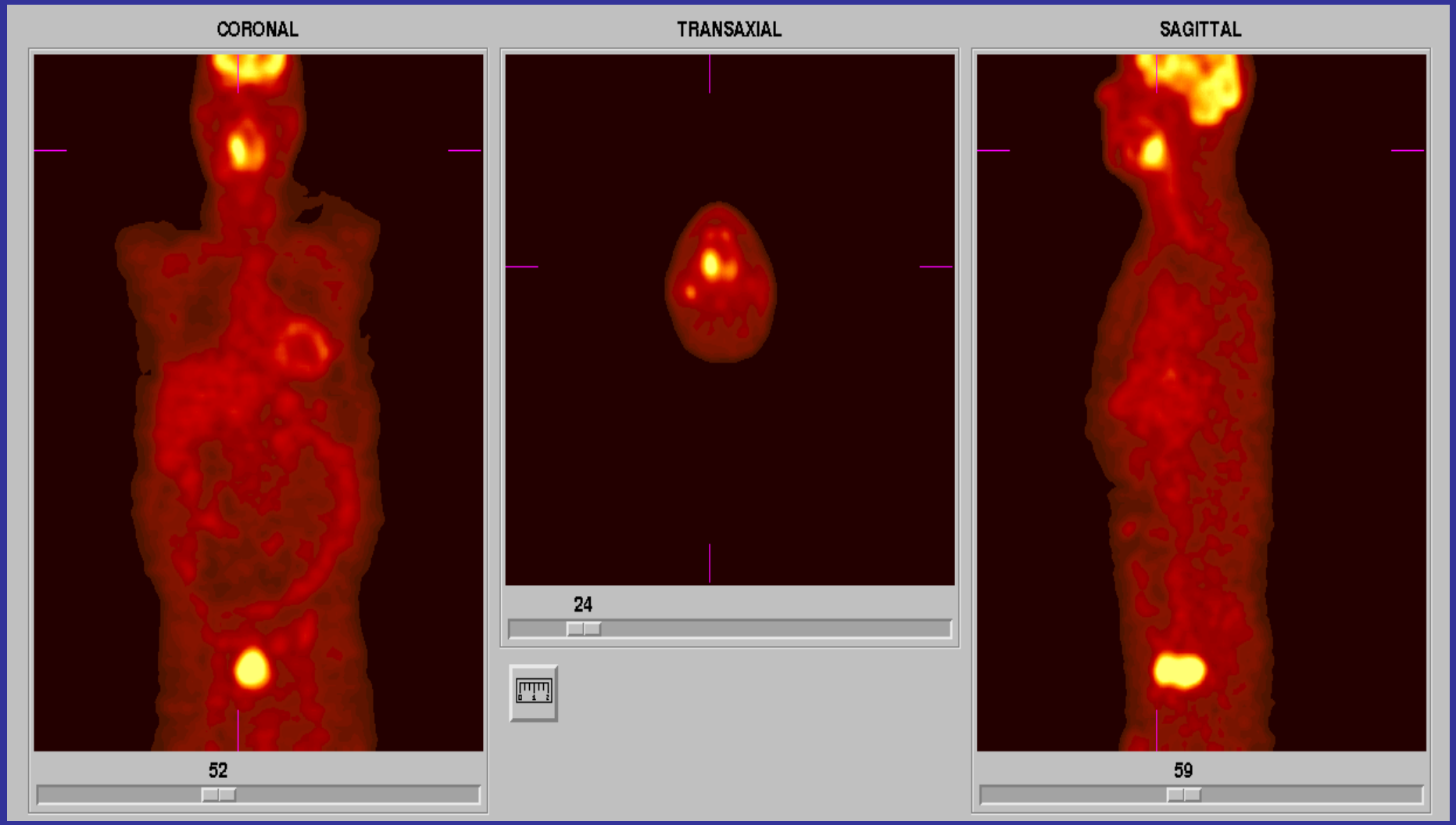
Nepoznat primarni tumor



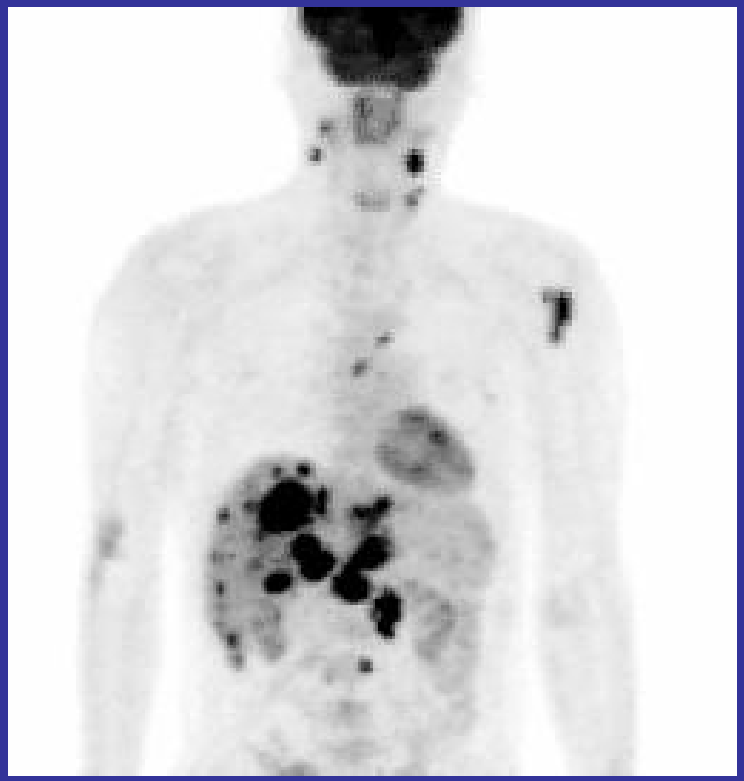
Otkrivene metastaze u limfnim žlezdama vrata

Glava i vrat

nepoznati primarni tumor

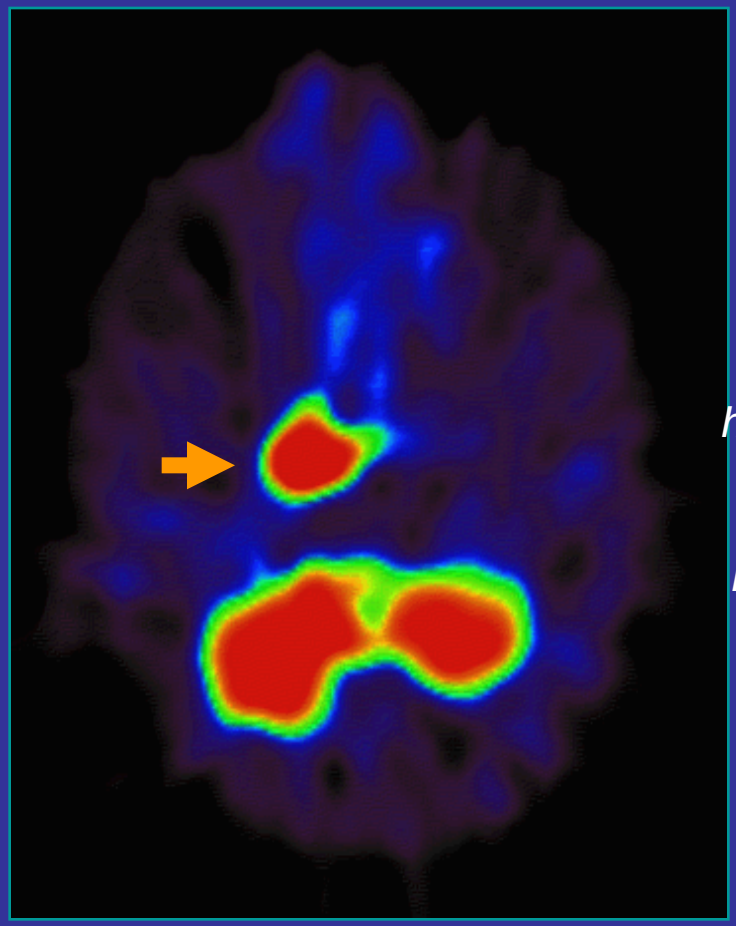


Otkriven je primarni orofaringealni karcinom



^{18}FDG – PET pojačano preuzimanje od strane primarnog tumora (karcinom leve strane vrata) i metastaza u jetri i kičmenim pršljenovima.

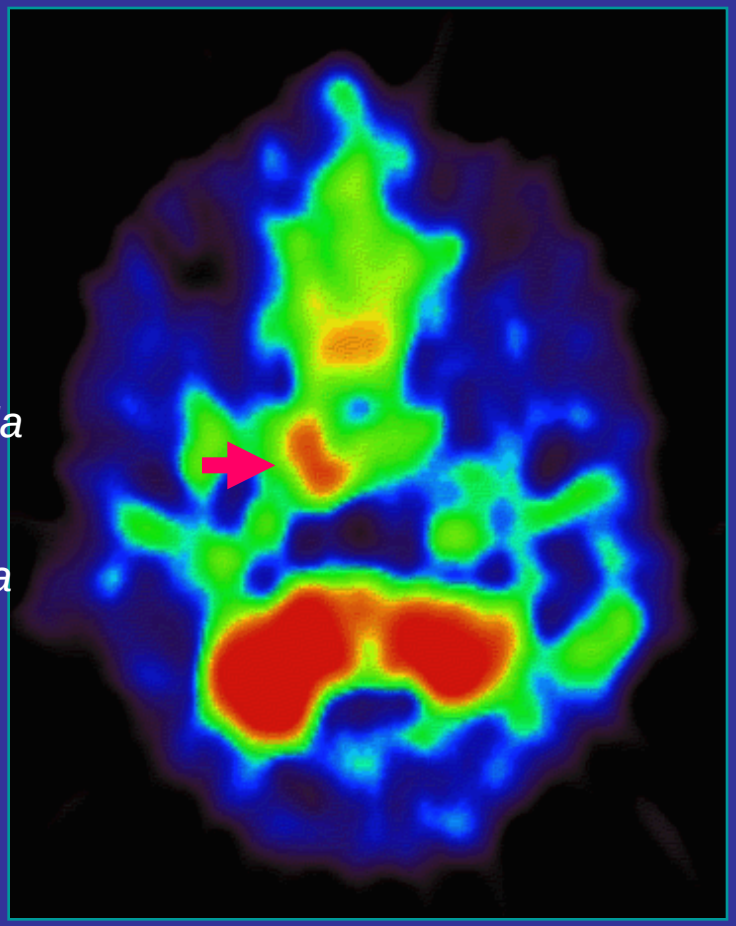
Nazofaringealni karcinom



hemioterapija

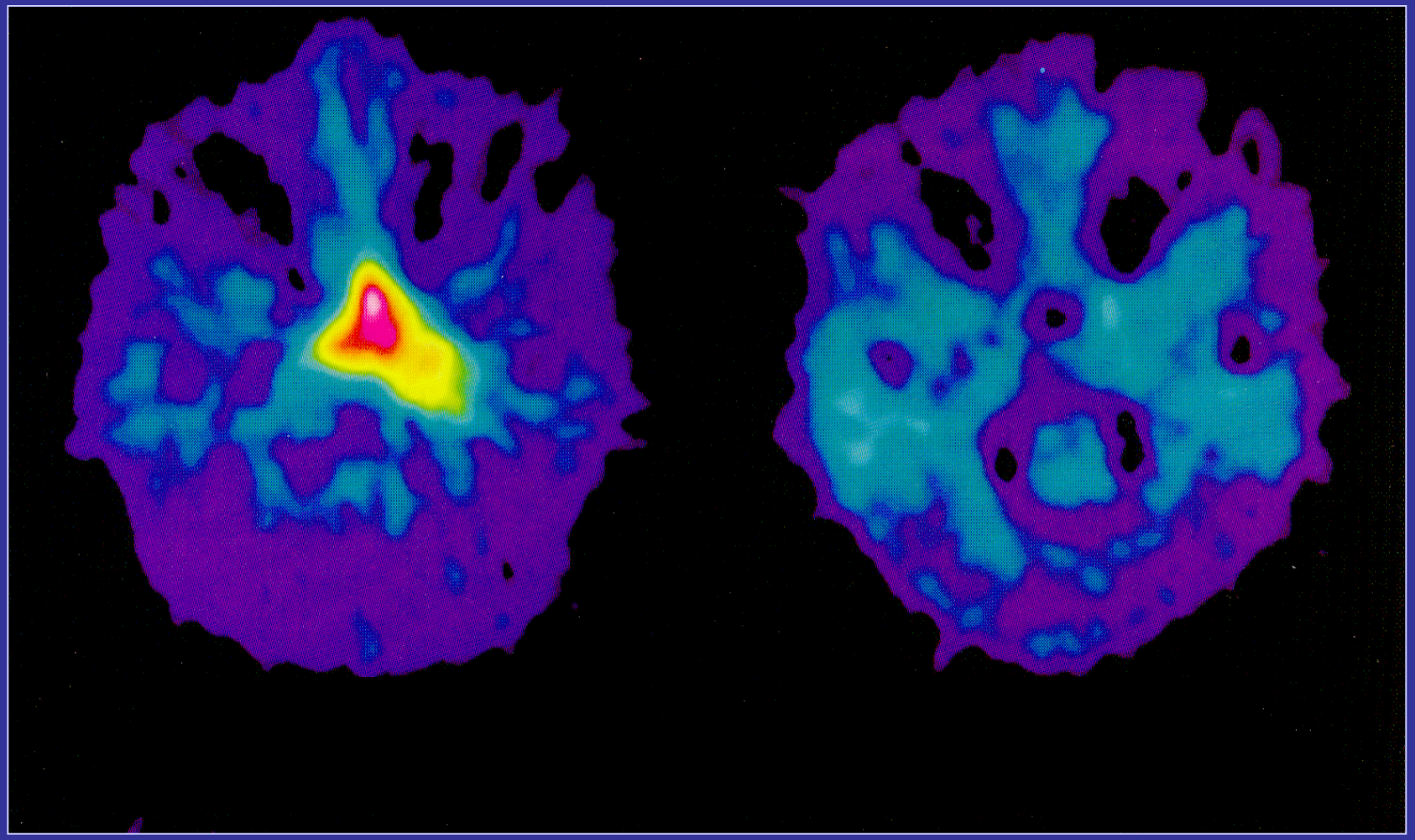
\+

radioterapija



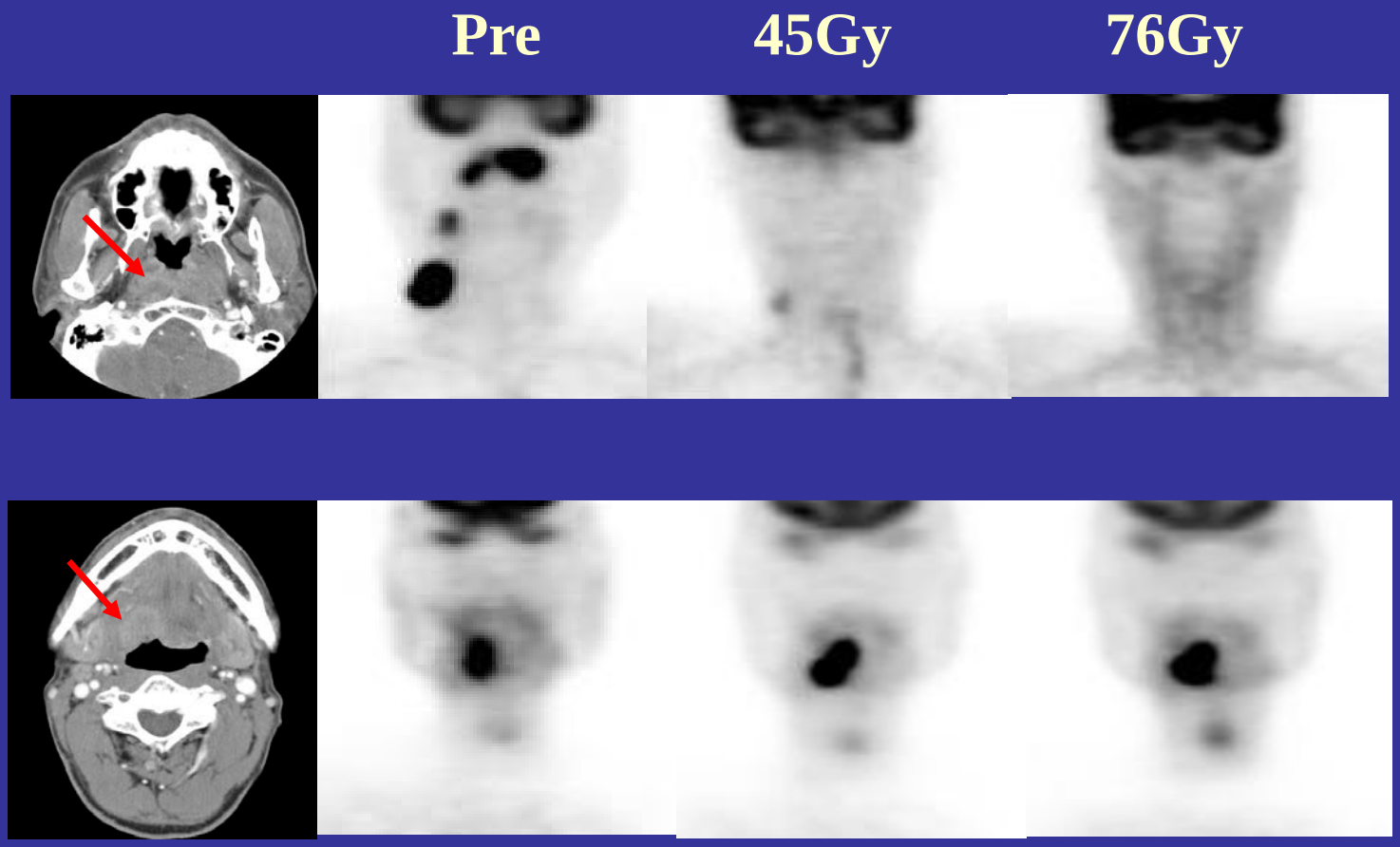
Jul 19

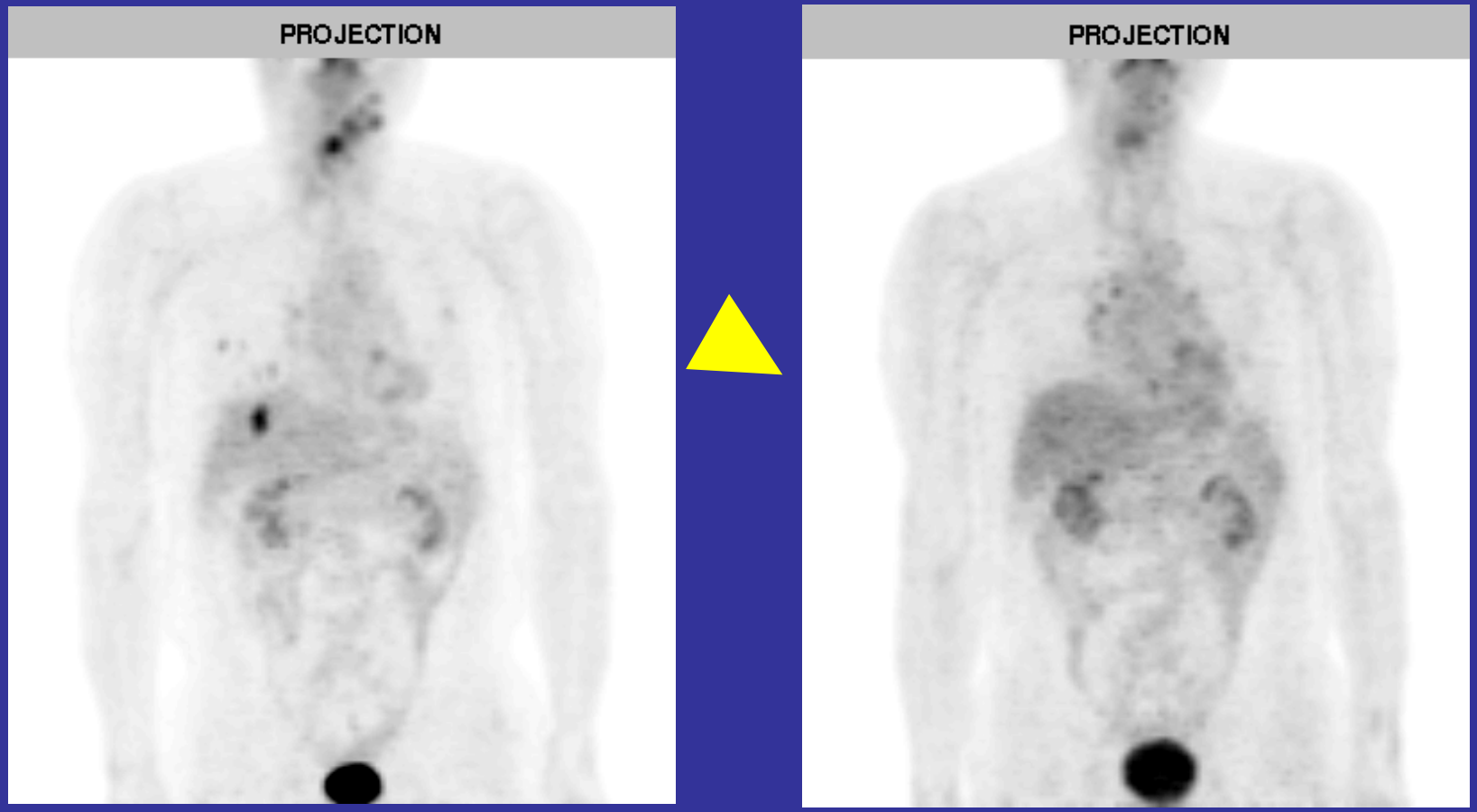
Octobar 30



PET scintigrami pre i 4 meseca posle radijacione terapije ukazuju na kompletnu remisiju.

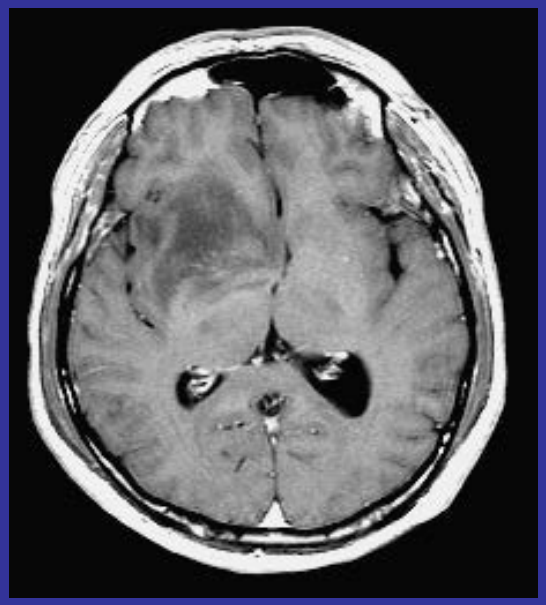
Praćenje efekta radioterapije

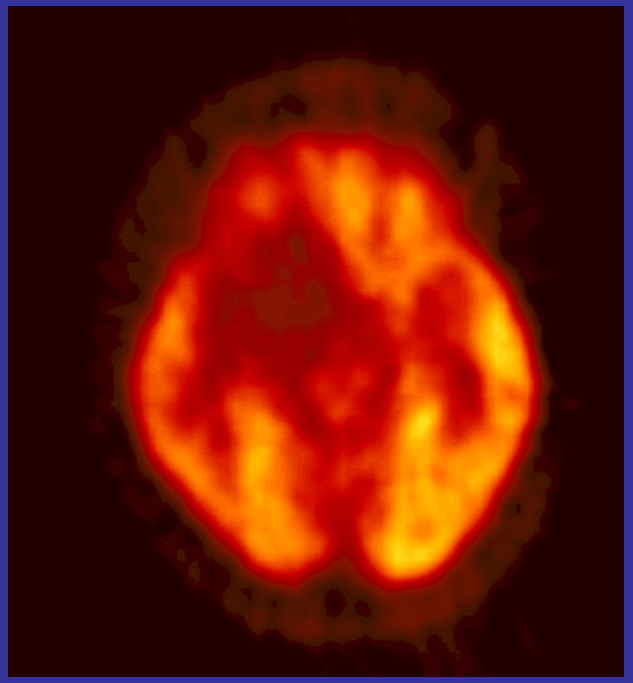


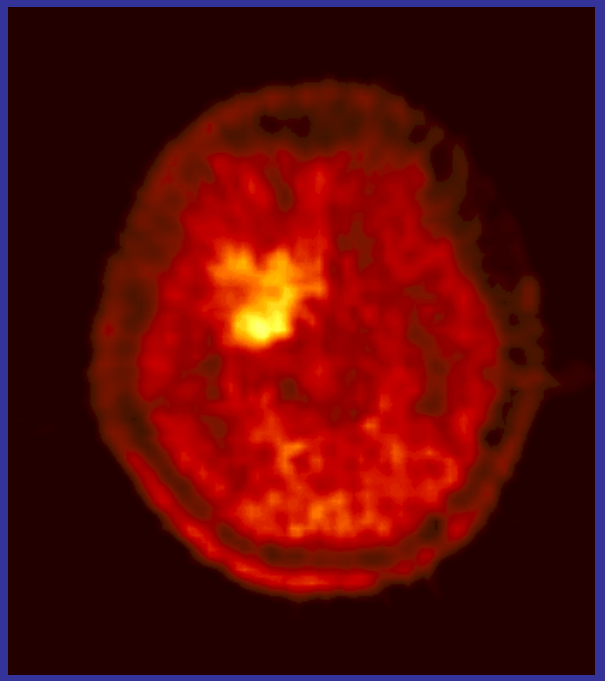


Karcinom glave i vrata-kompletna remisija posle hemioterapije (PET FDG).

NEUROLOGIJA



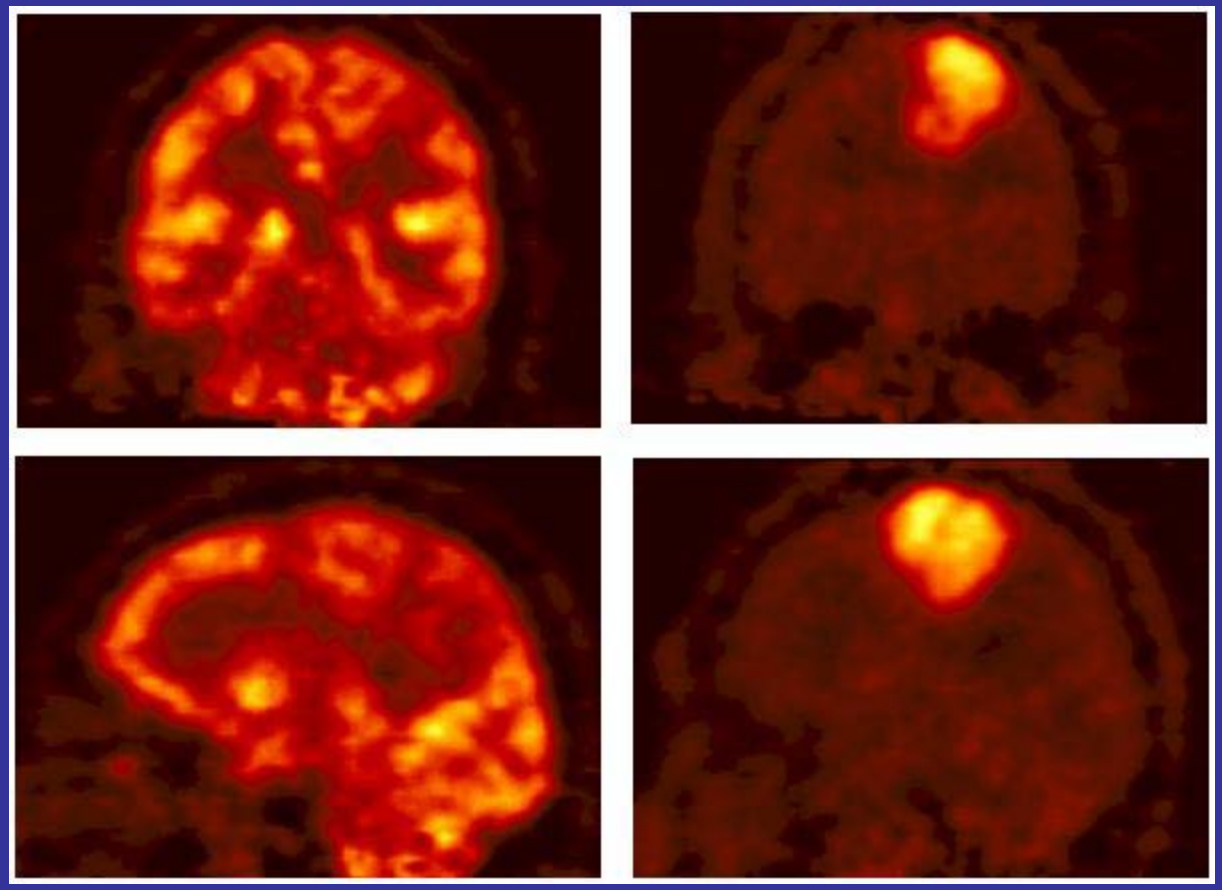




MRI ^{18}F-FDG ^{11}C-methionine

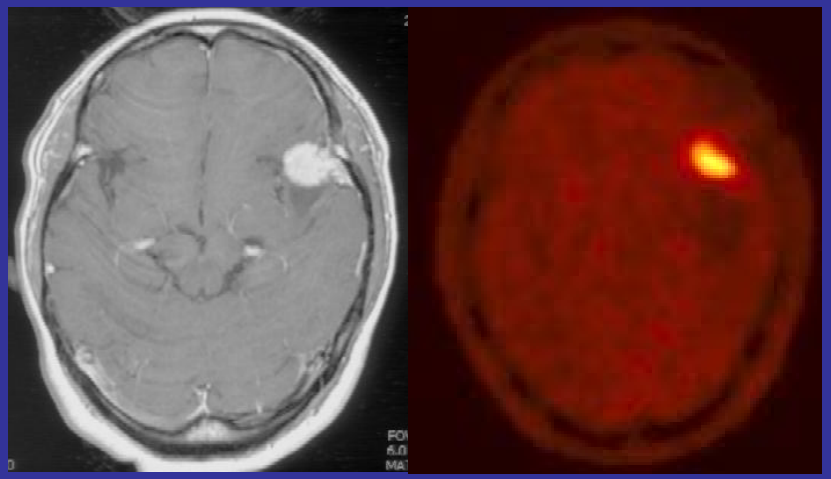
Astrocitom

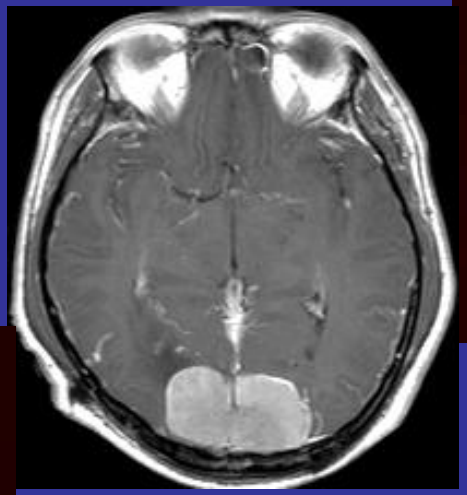
18F-FDG (-) / 11C-Met (+)

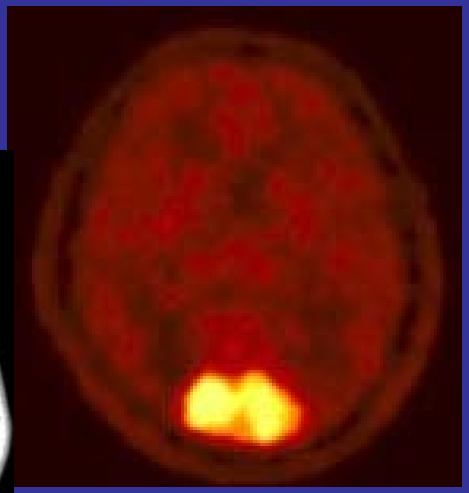


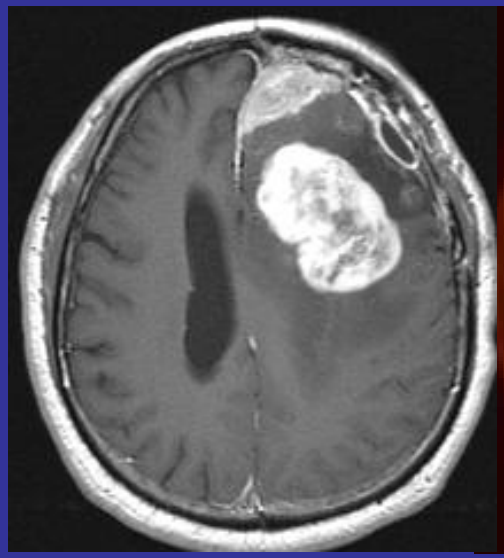
PET -^{18}FDG mozga i ^{11}C-metionin u istog bolesnika - koronalni (prvi red) i sagitalni preseci (drugi red): nakupljanje FDG u tumoru (levo, strelice) ne razlikuje se od fiziološkog, a metionin (desno) se u tumoru nakuplja daleko intenzivnije nego u okolnom moždanom tkivu (anaplastični oligodendrogliomom).

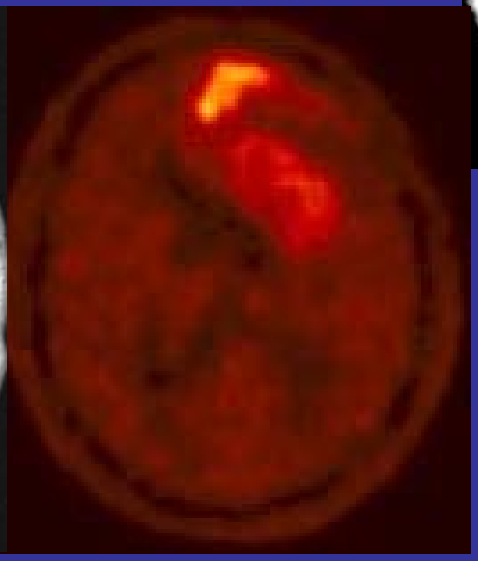
Meningeom -11C-metionin

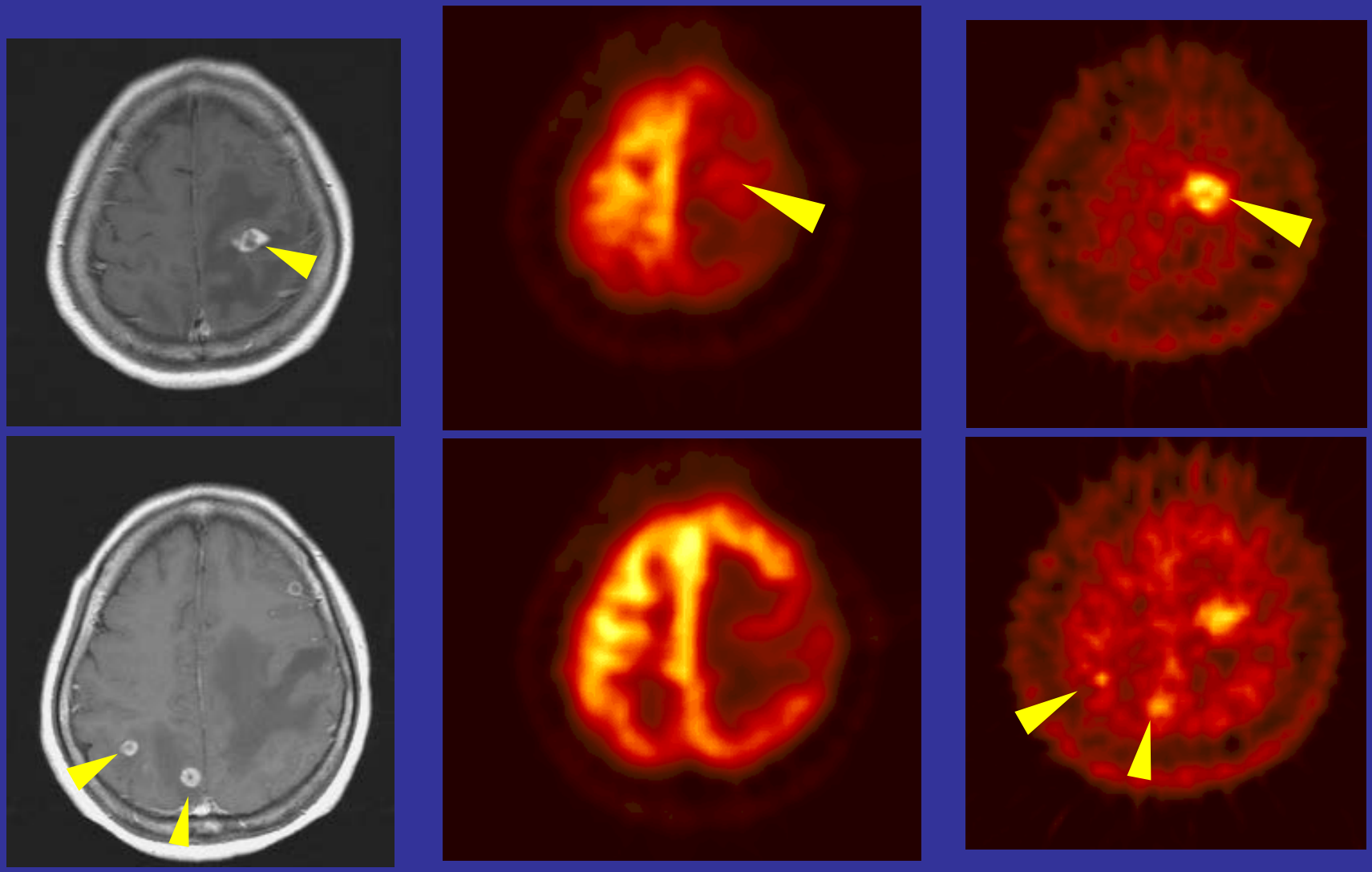






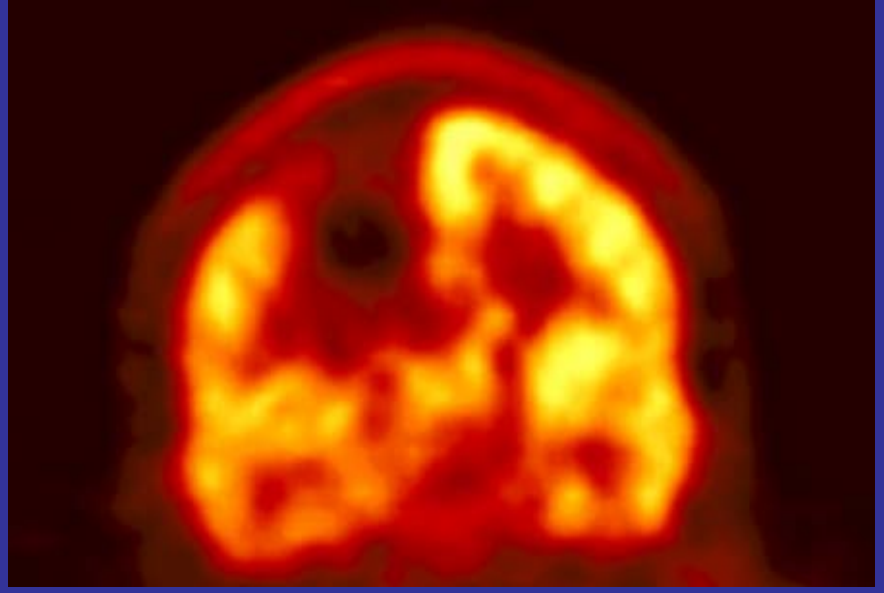




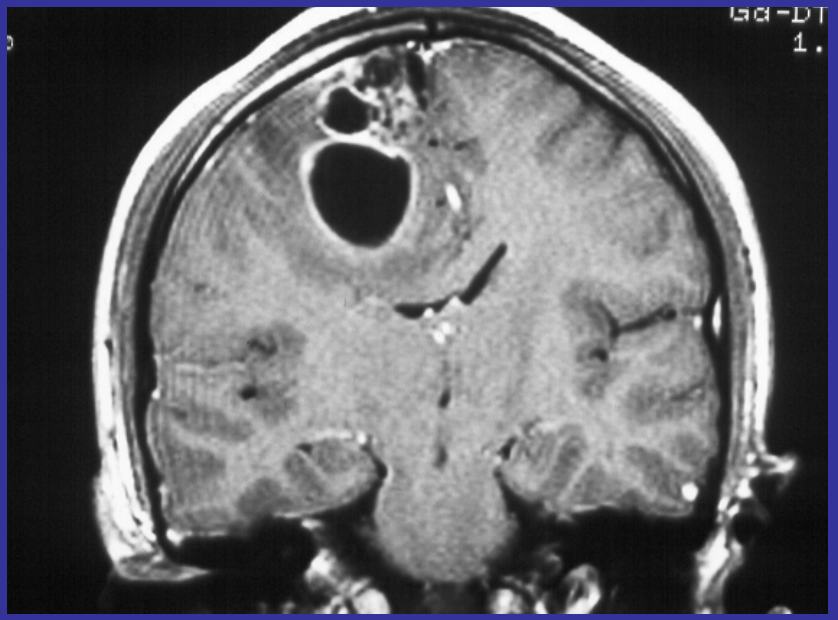


MRI ^{18}F-FDG ^{11}C-metionin

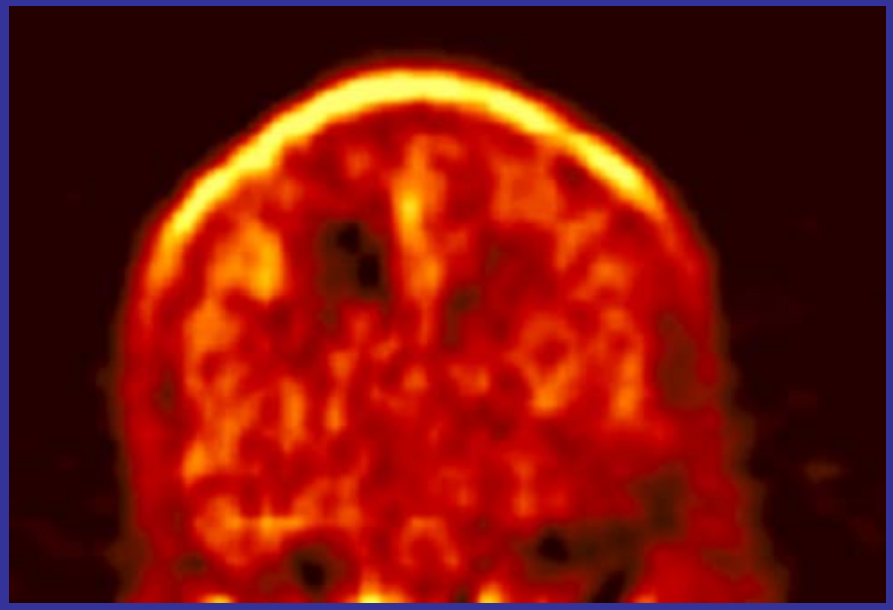
Metastaze u mozgu (NSCLC)



^{18}F-FDG



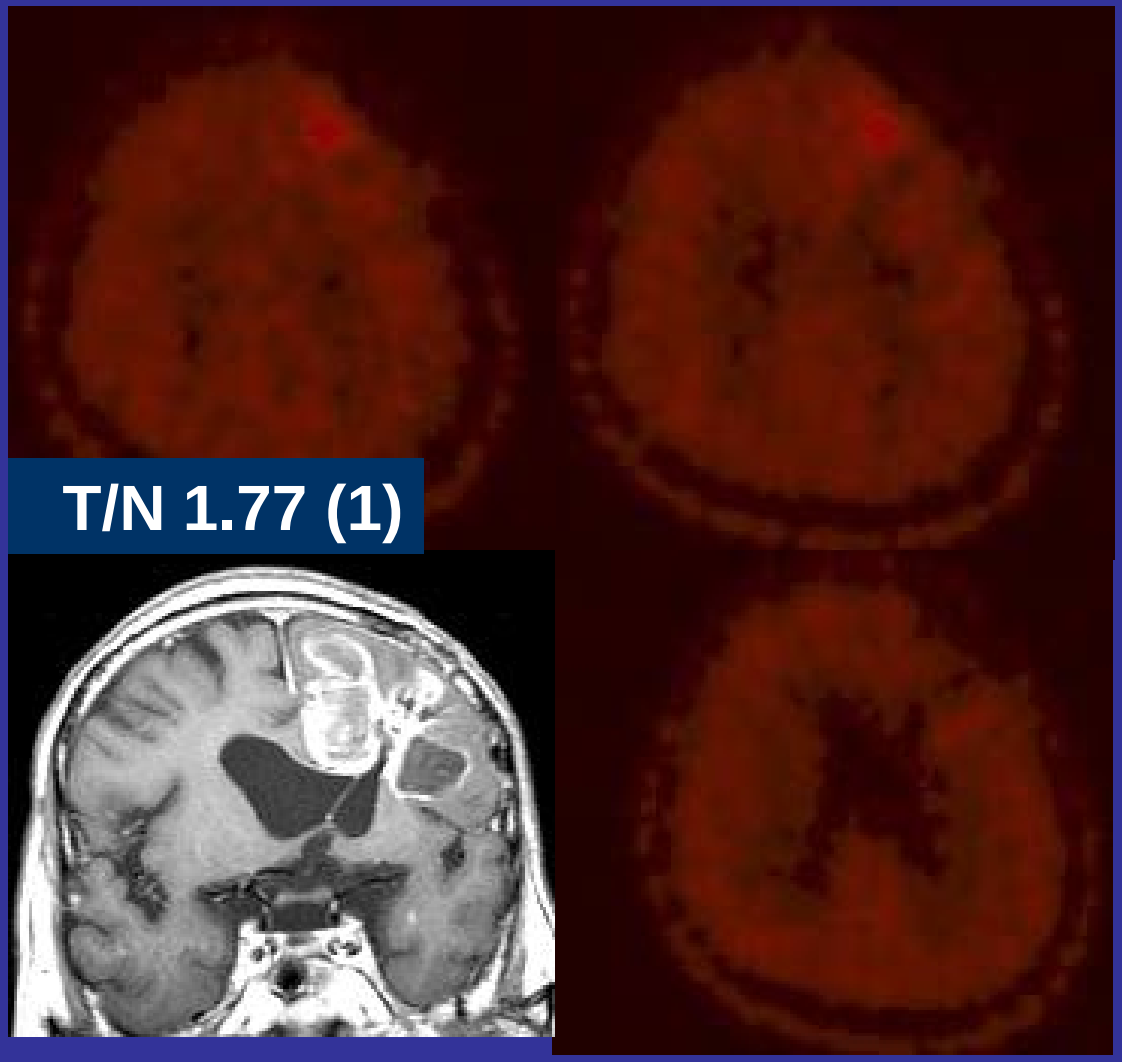
MRI



^{11}C-metionin

Neurocisticer**koza**

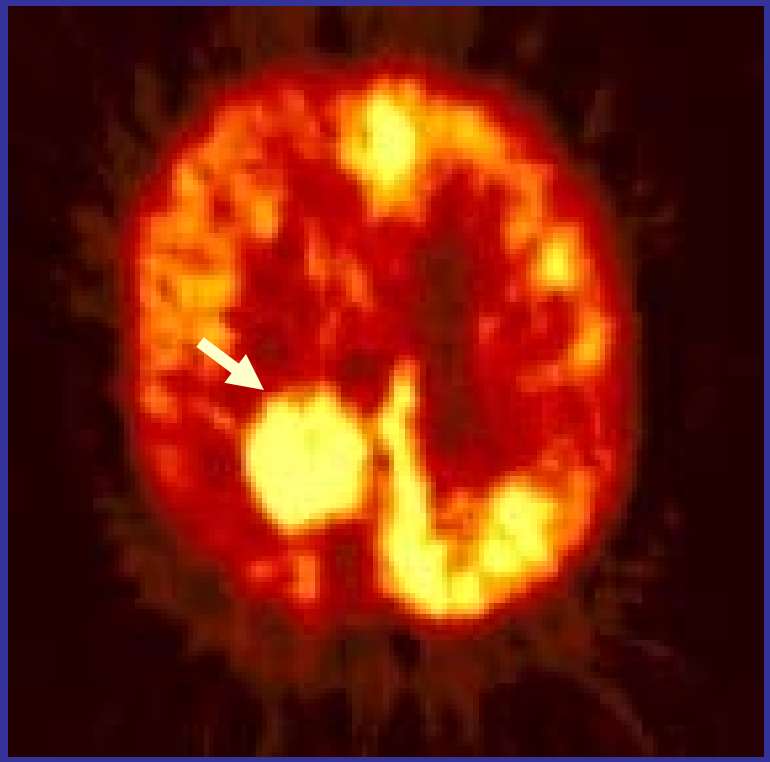
Radijaciona nekroza 11C-metionin



MRI

^{18}F-FDG PET

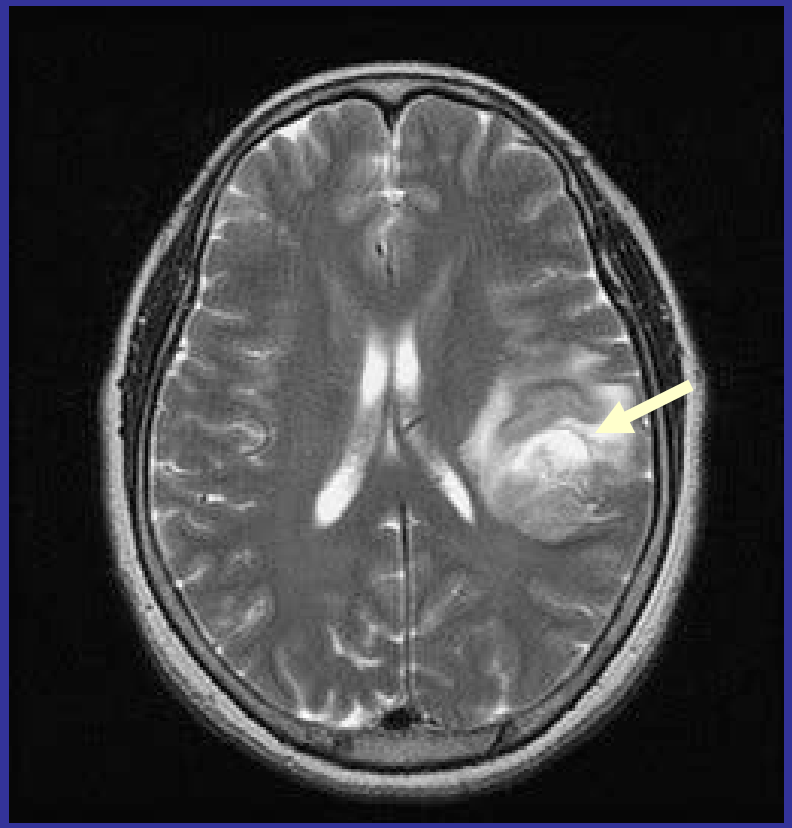


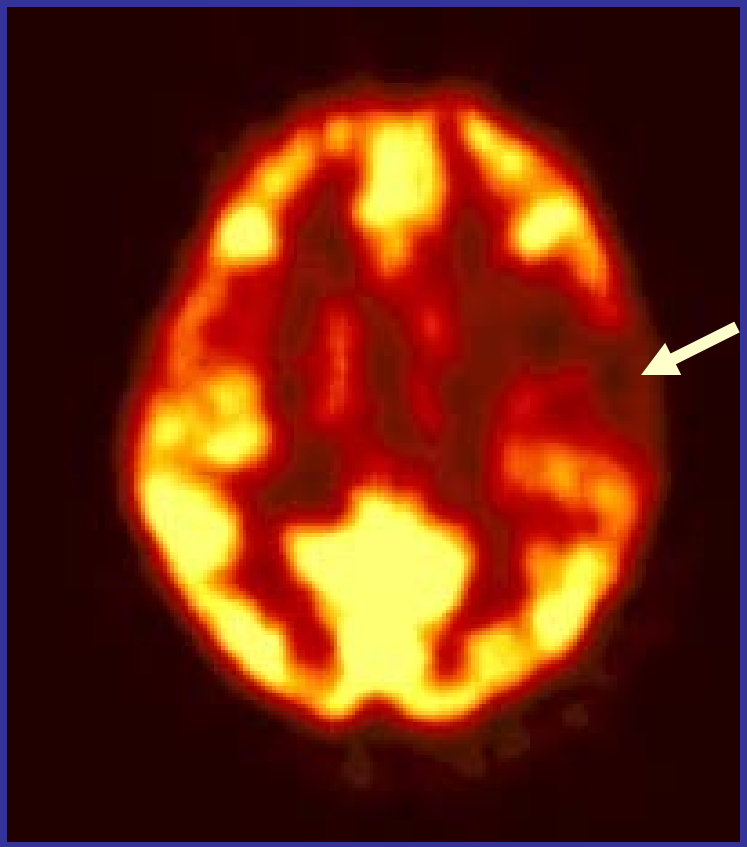


Gliom visokog stepena maligniteta

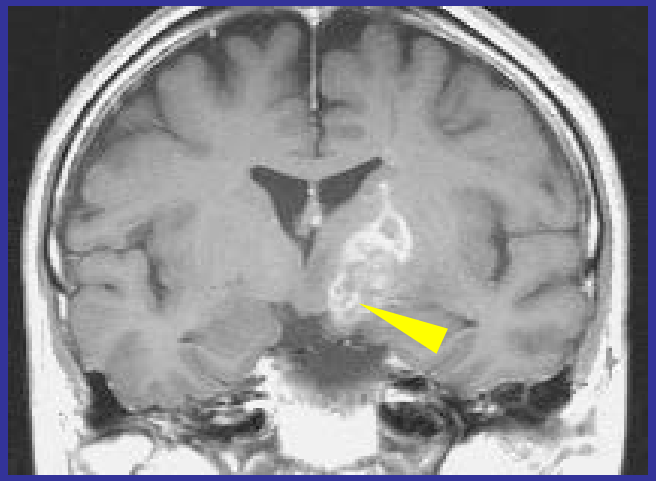
MRI

^{18}F-FDG PET



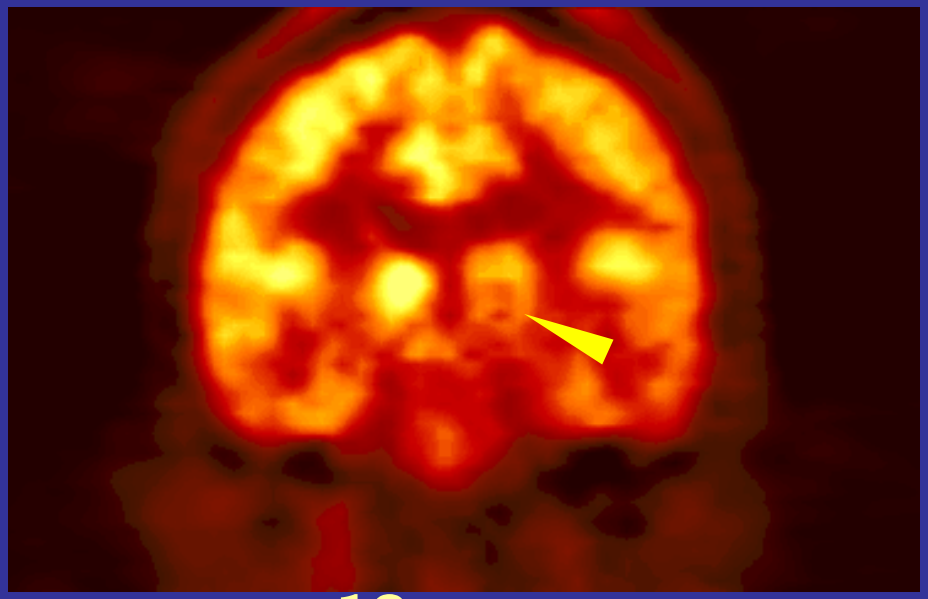


Gliom niskog stepena maligniteta

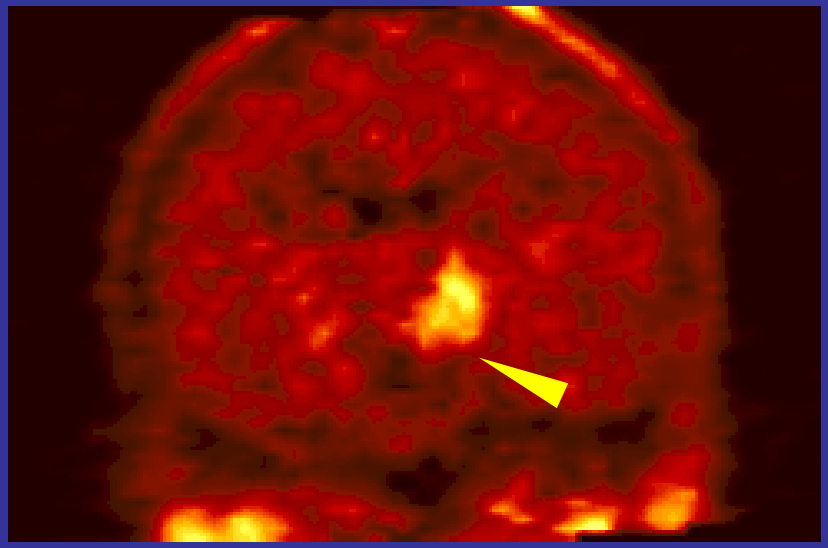


MRI

Anaplastični astrocitom

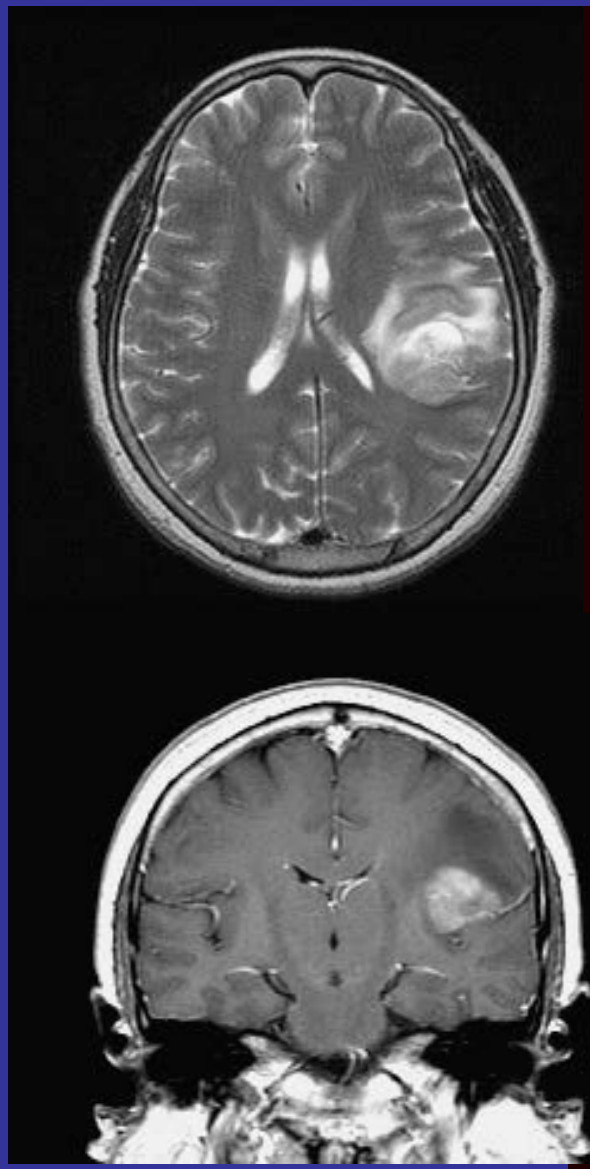


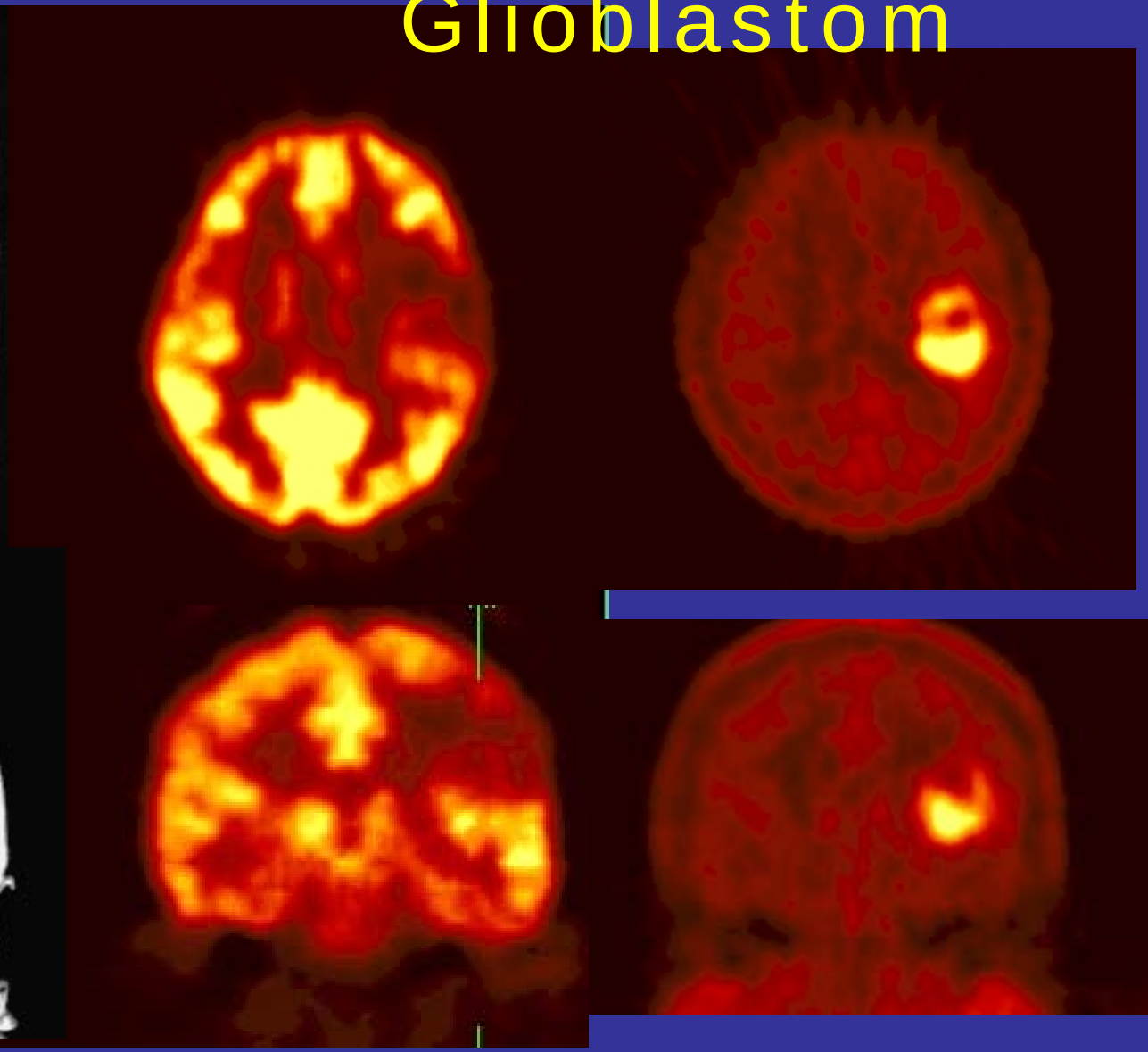
^{18}F-FDG



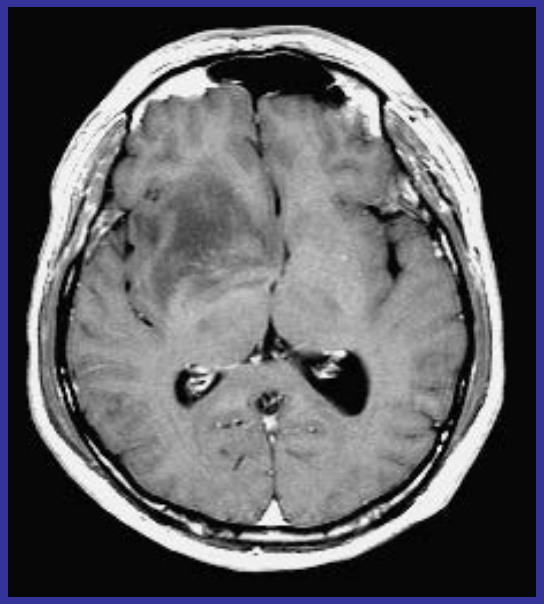
^{11}C- MET

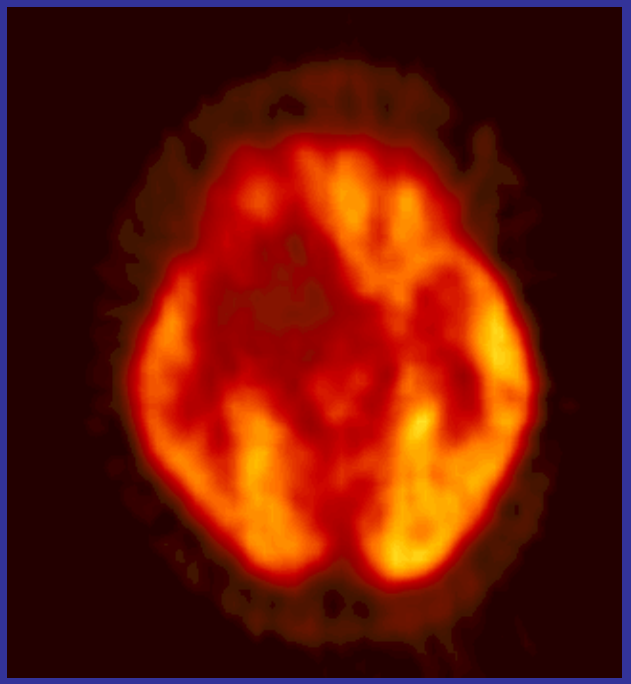
Glioblastom

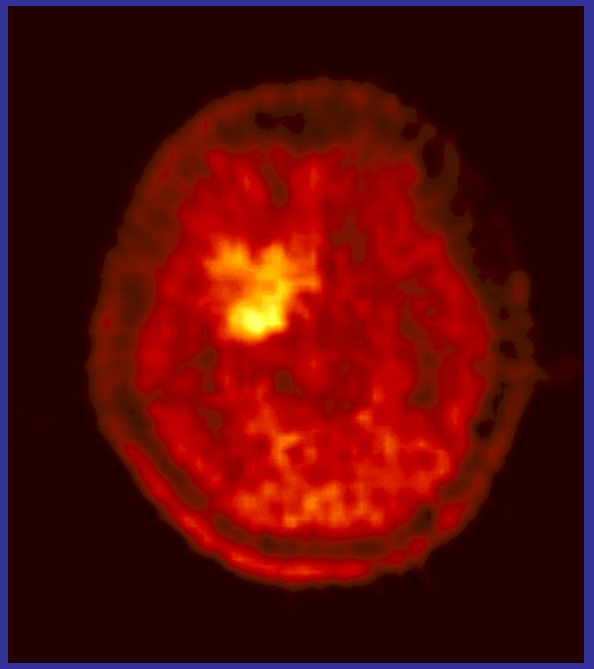




MRI **^{18}F-FDG** **^{11}C- MET**



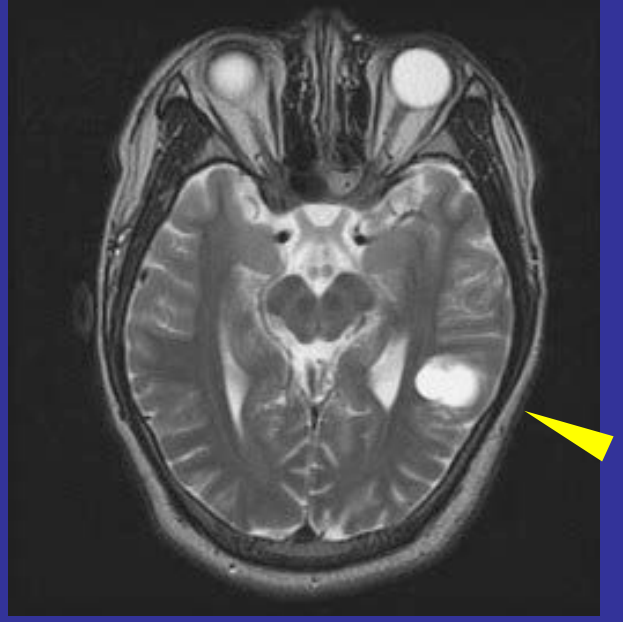




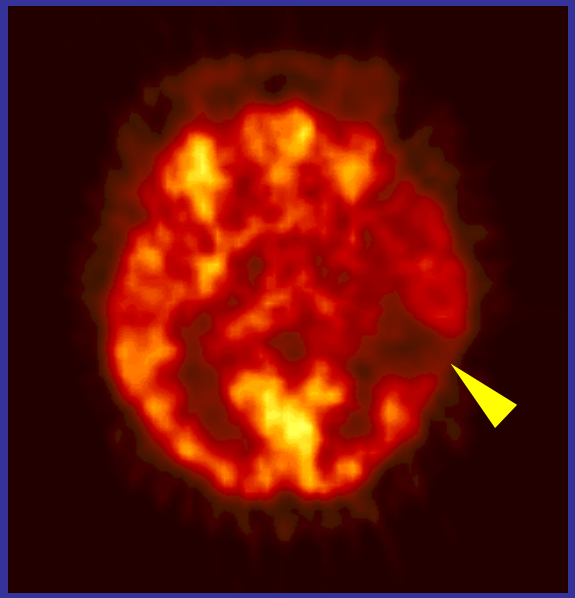
MRI ^{18}F-FDG ^{11}C-methionine

Astrocitom niskog stepena maligniteta

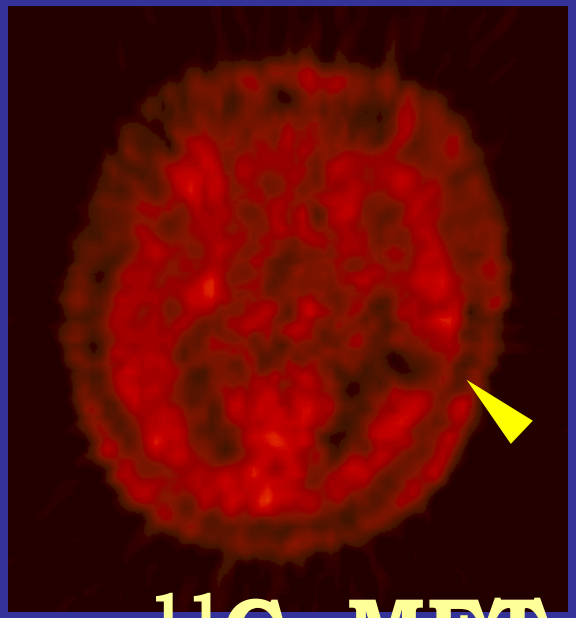
Gangliogliom



MRI



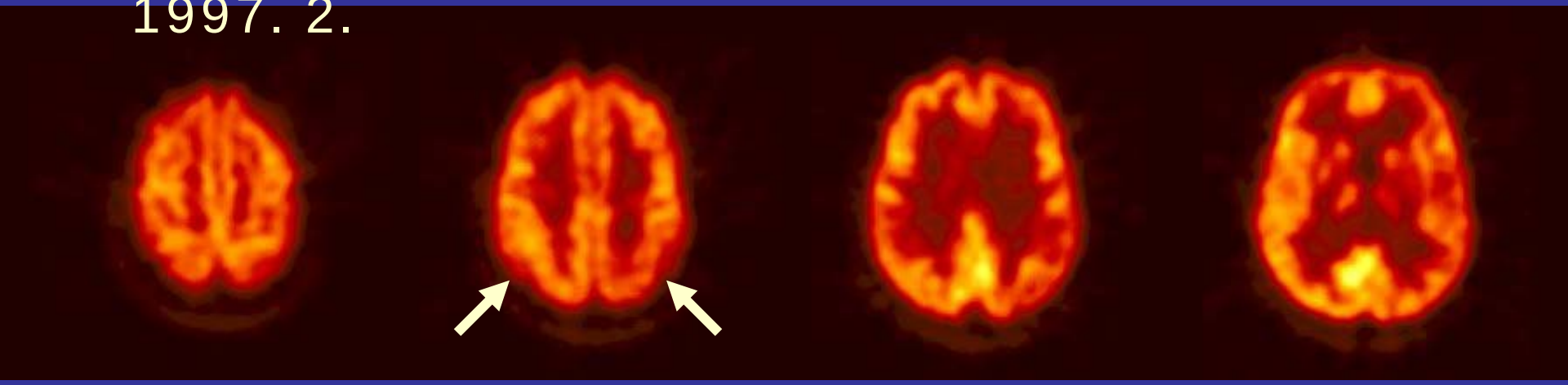
^{18}F-FDG



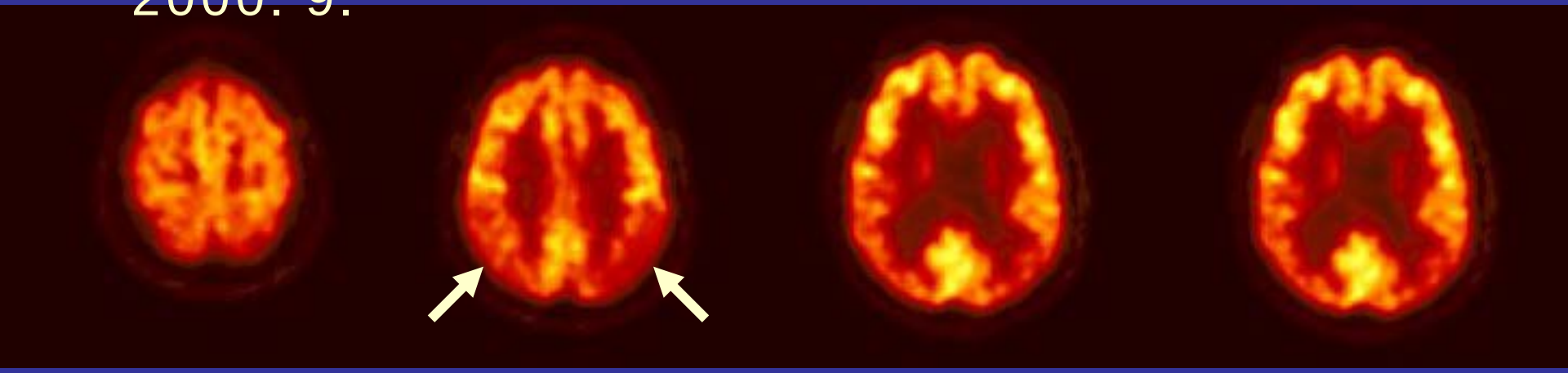
^{11}C- MET

Alchajmerova bolest

1997. 2.



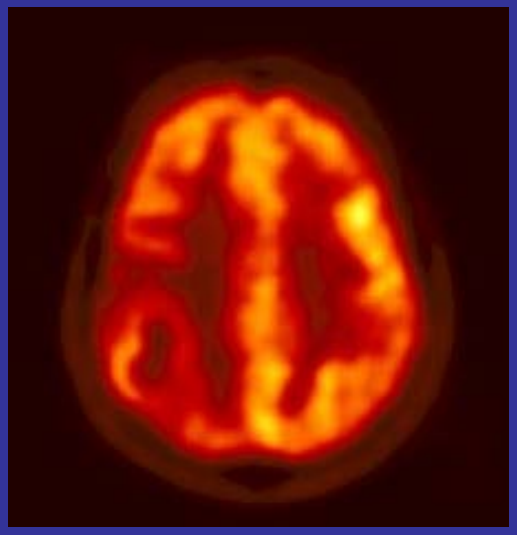
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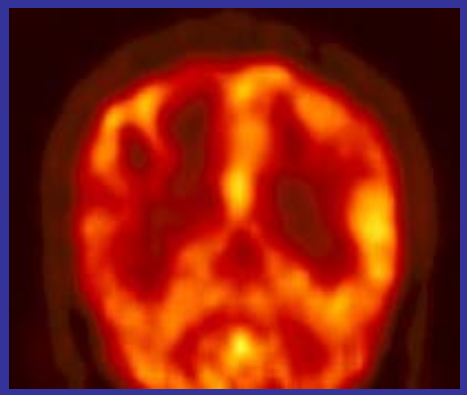


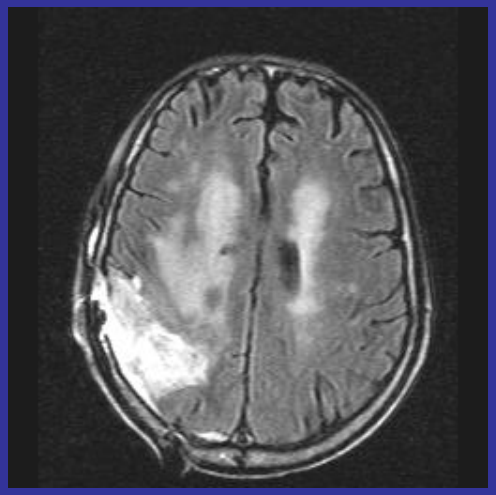
Smanjen metabolizam u oba parijetalna lobusa

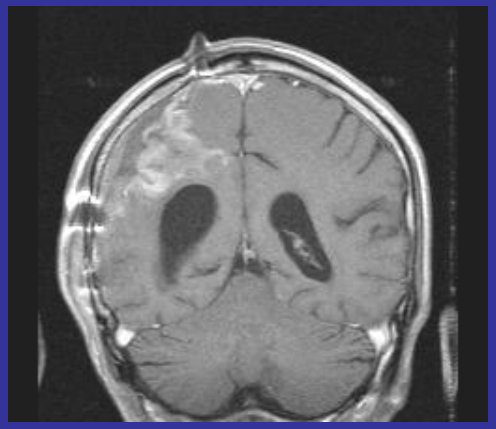
Preop

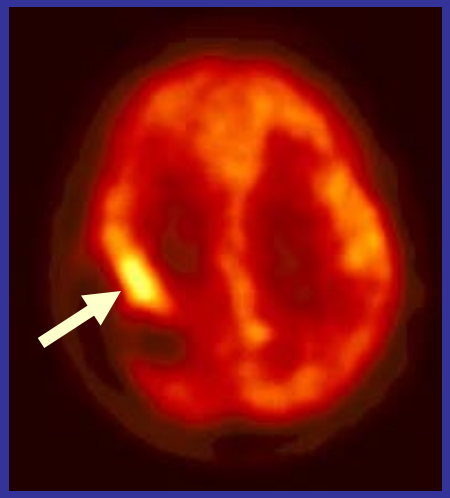
Postop

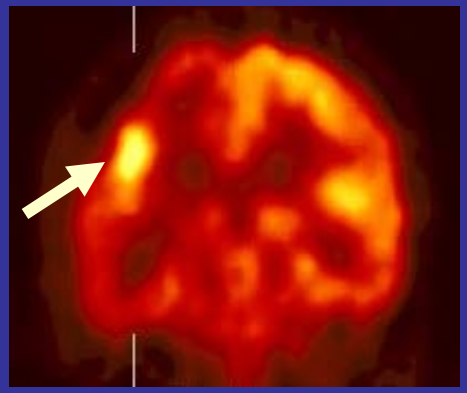








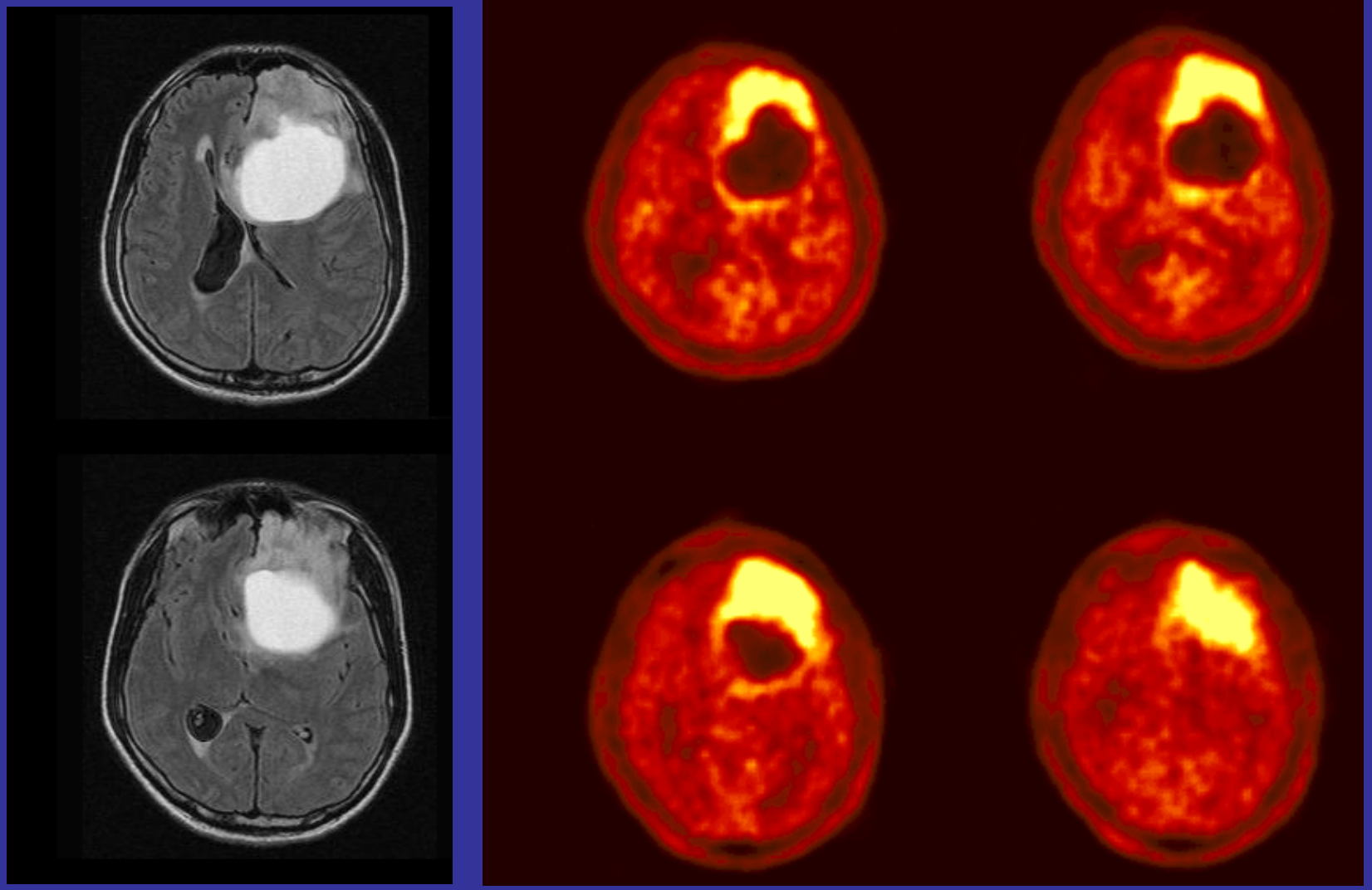




Recidiv tumora

MRI

^{11}C-methionine PET

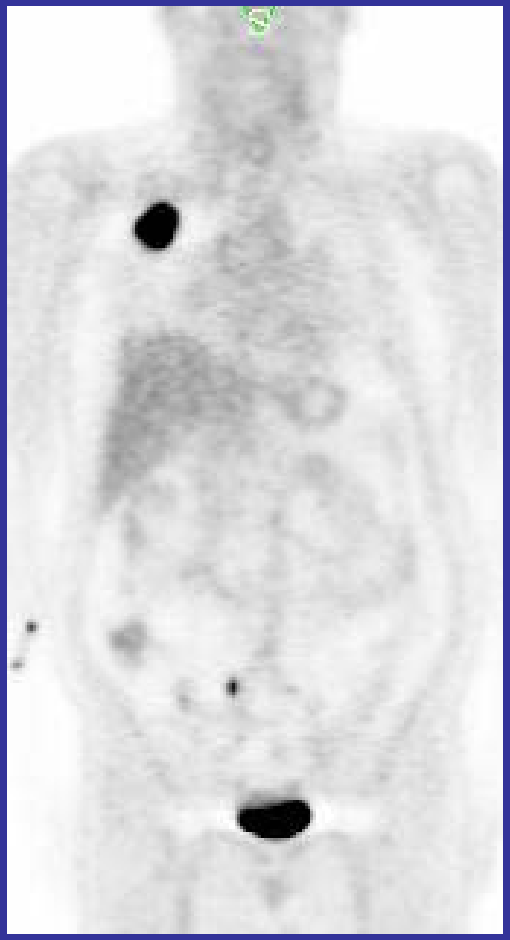


Tumor visokog stepena maligniteta

PLUĆA

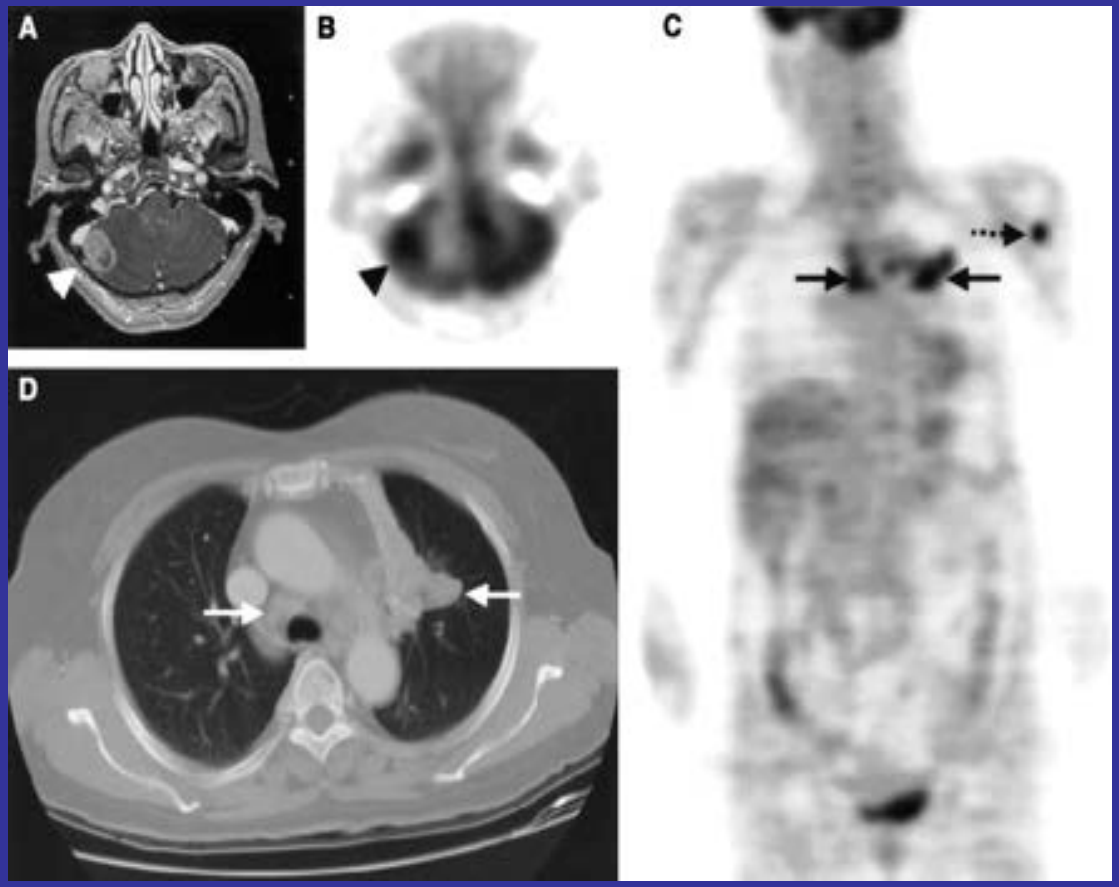


Koronalni presek velikog levostranog *non-small cell* karcinoma sa istostranom i kontralateralnom limfadenopatijom u hilusu i subkarinalno



PET / 18FDG – karcinomom gornjeg režnja desnog plućnog krila.

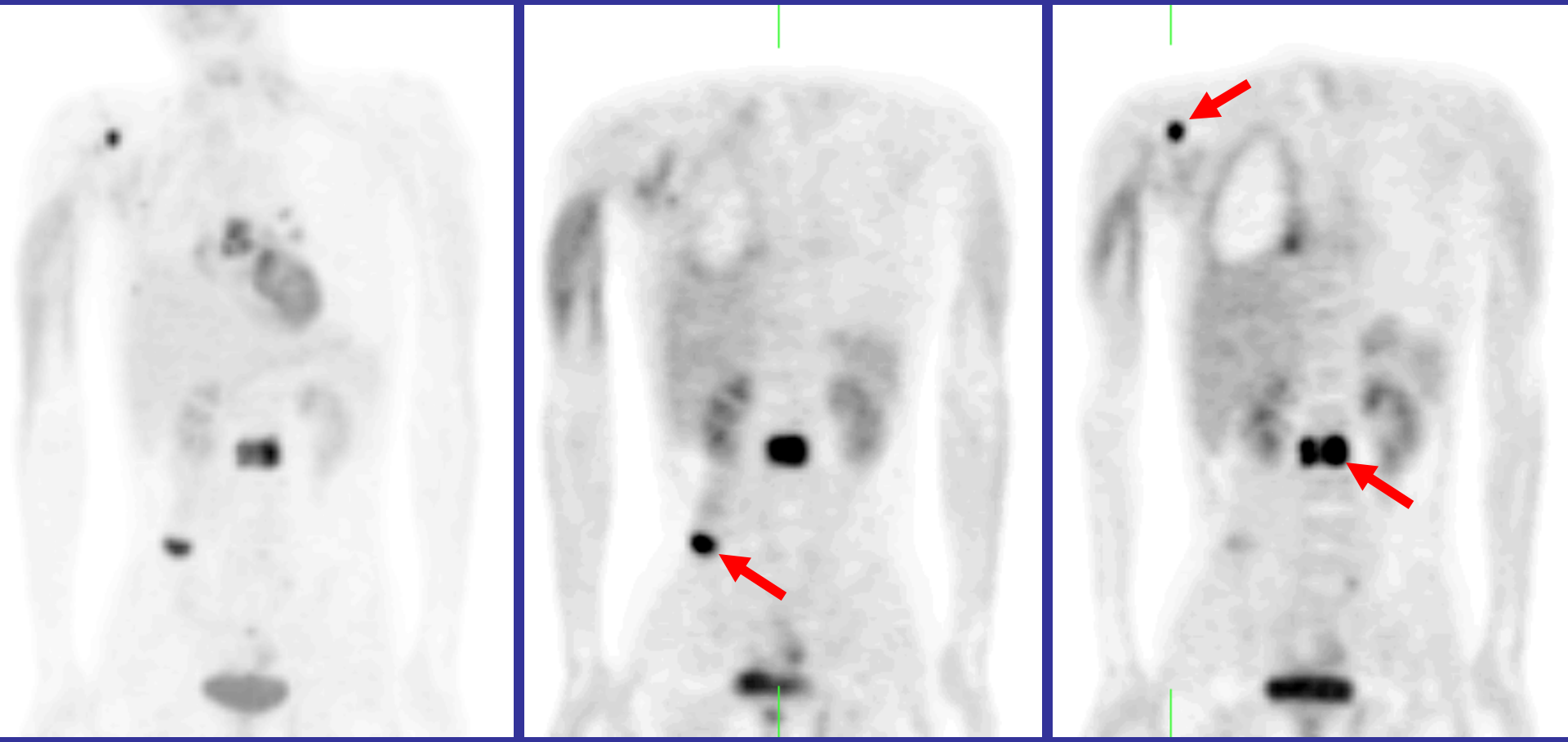
Metastaza tumora mozga u plućima (FDG)



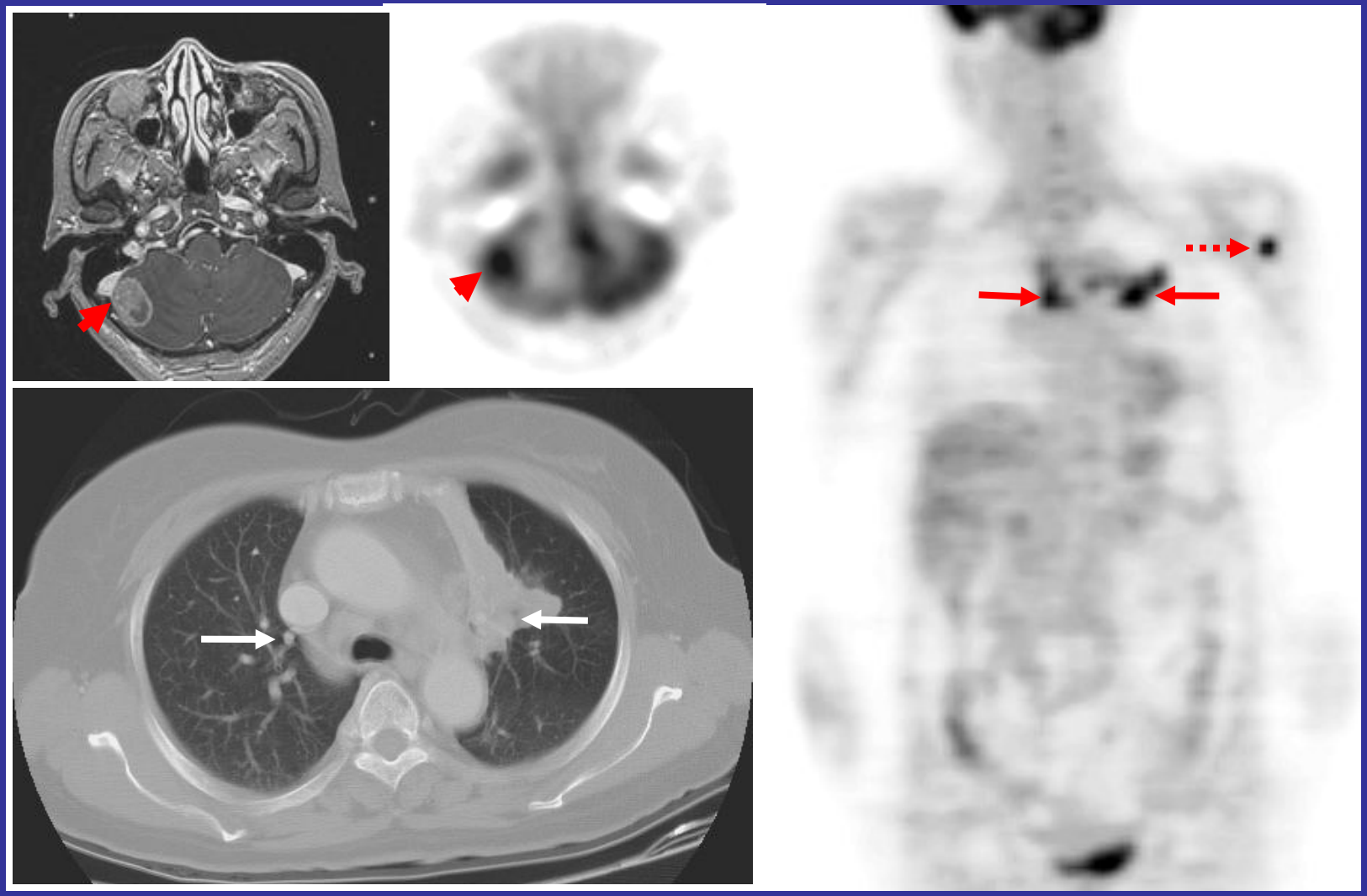


PET / 18FDG – karcinom donjeg režnja desnog plućnog krila sa metastazama u nadbubrežne žlezde, limfne žlezde vrata i jetru.

s/p Desna pneumonektomija. Bol u ramenu.

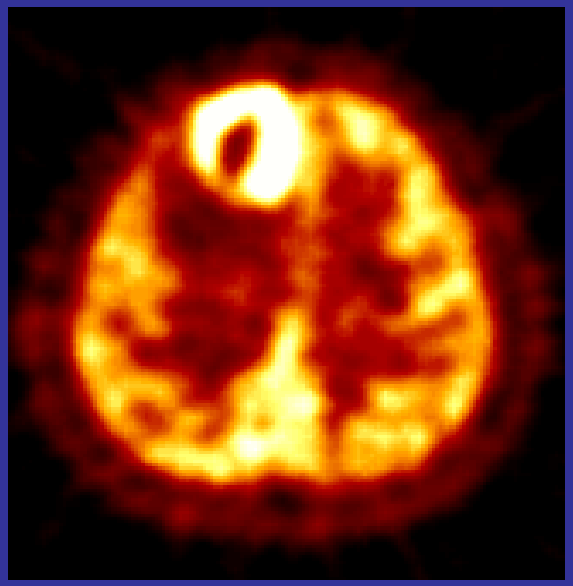


Karcinom pluća

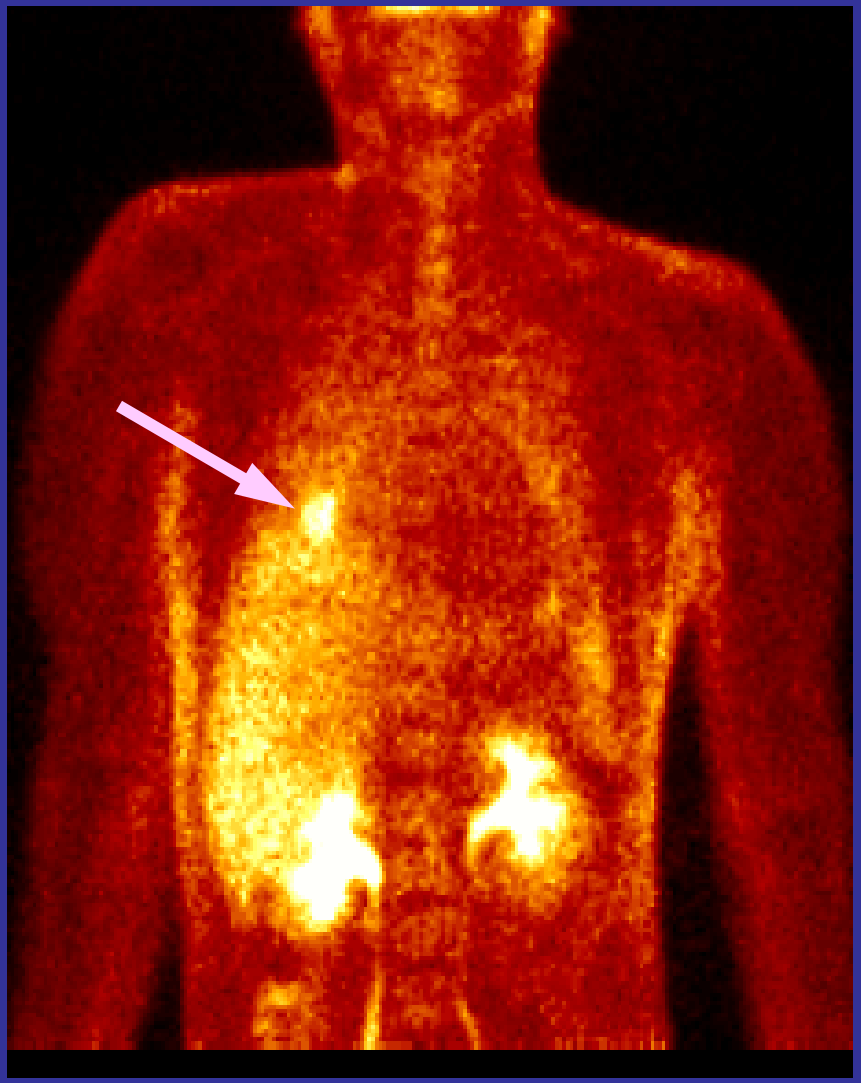


Metastaza CA pluća u mozgu

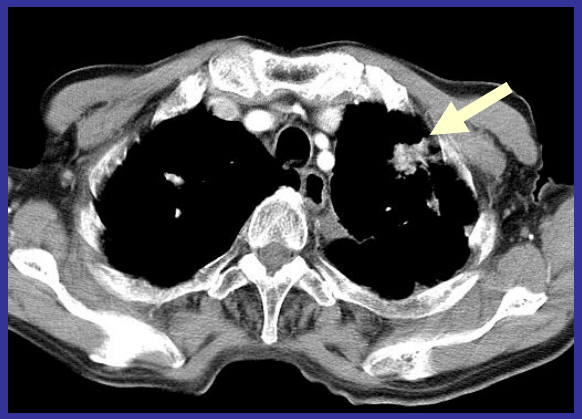
Otkrivena neočekivana metastaza u levom humerusu

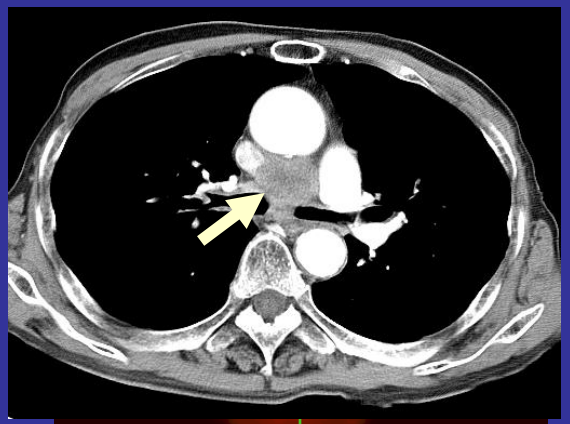


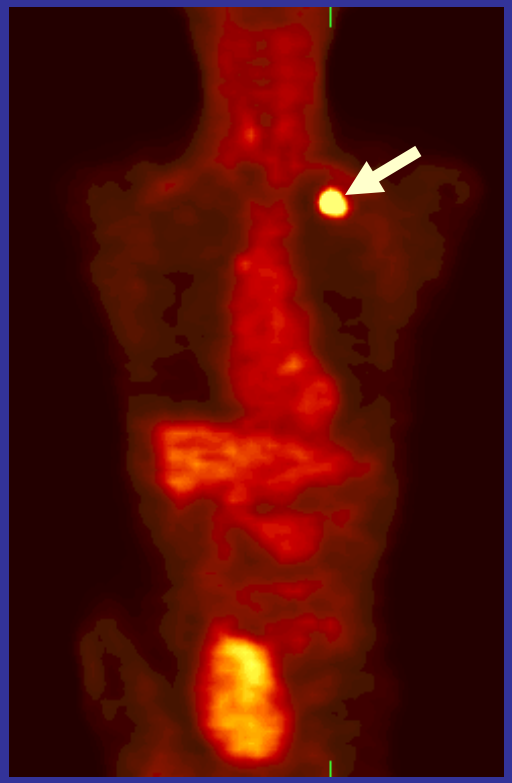


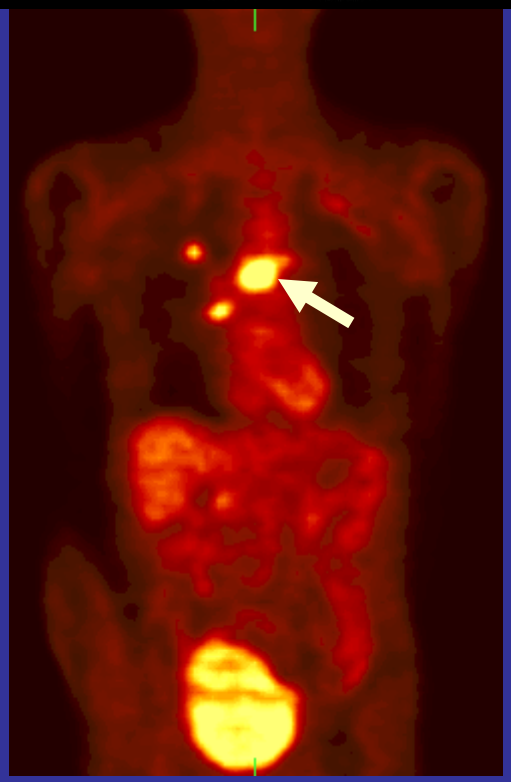


Metastaze karcinoma pluća u mozgu





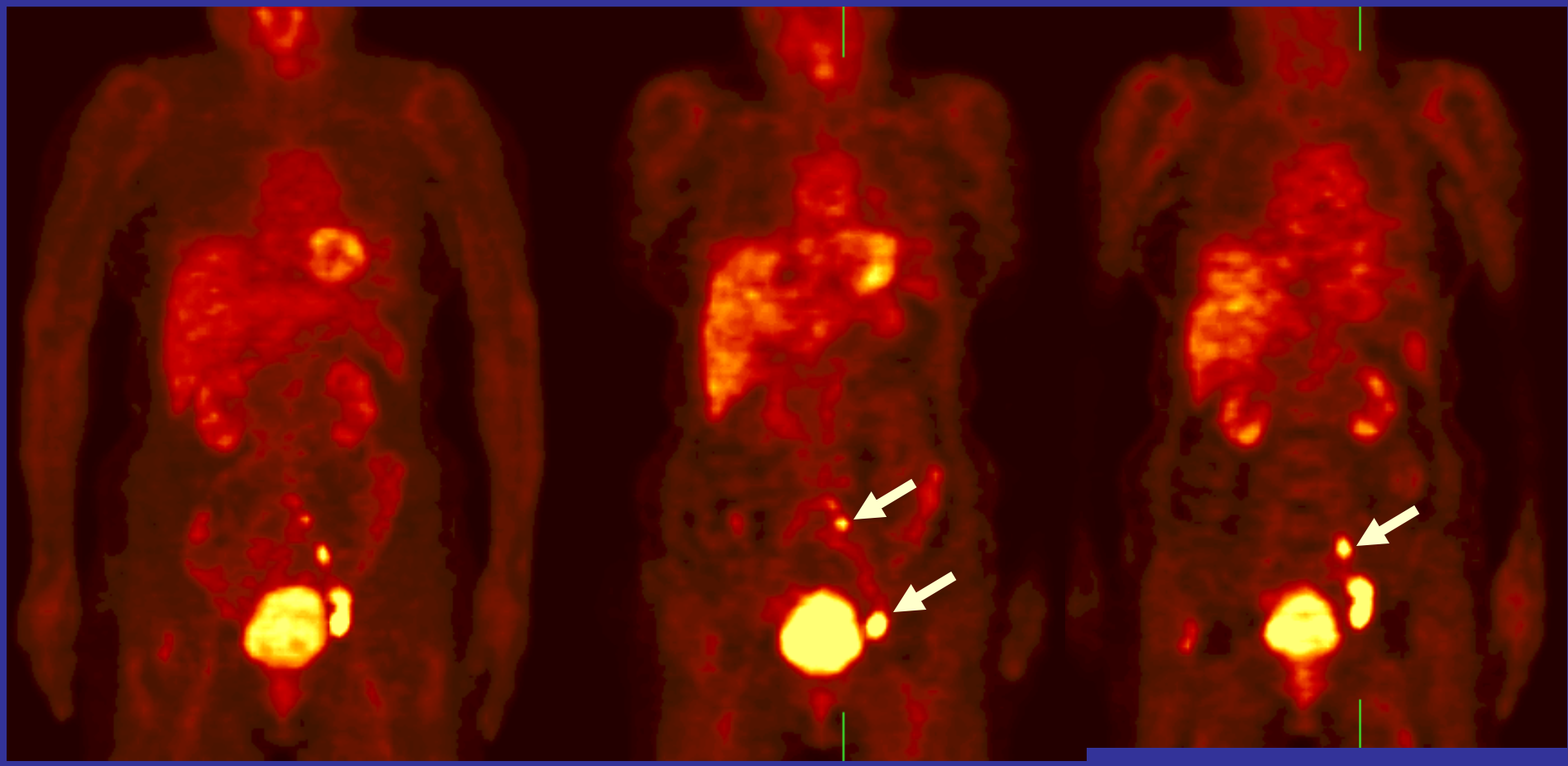




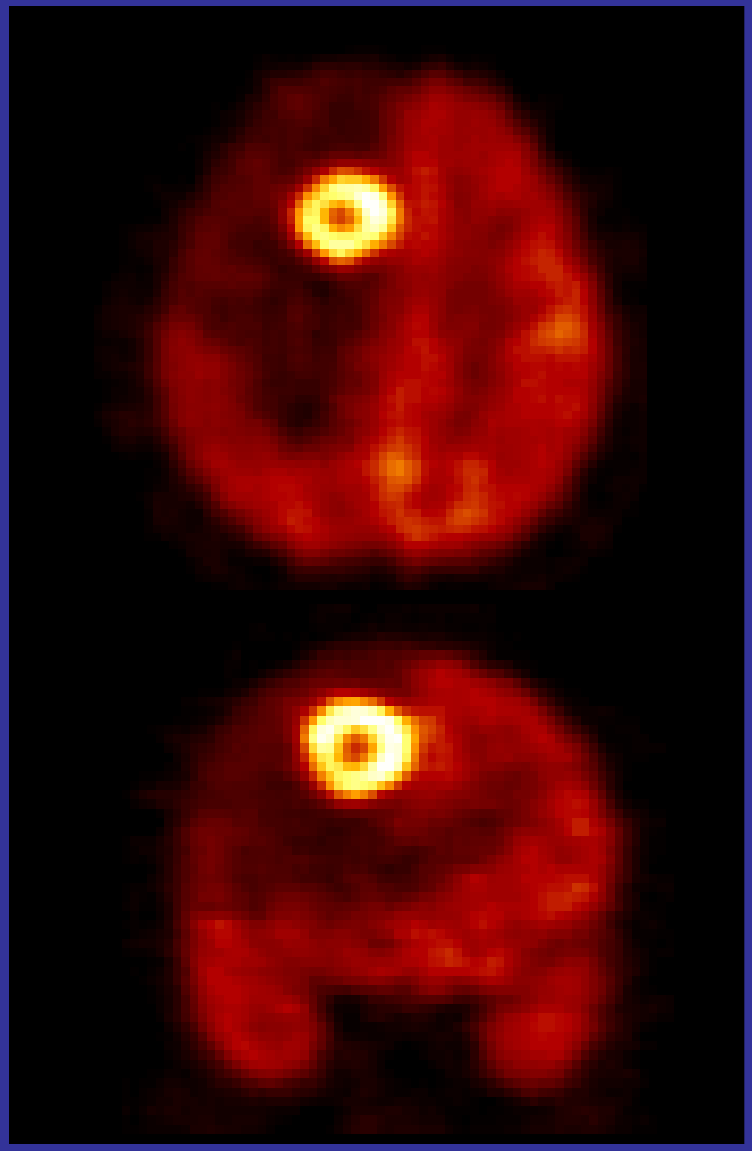
Karcinom pluća

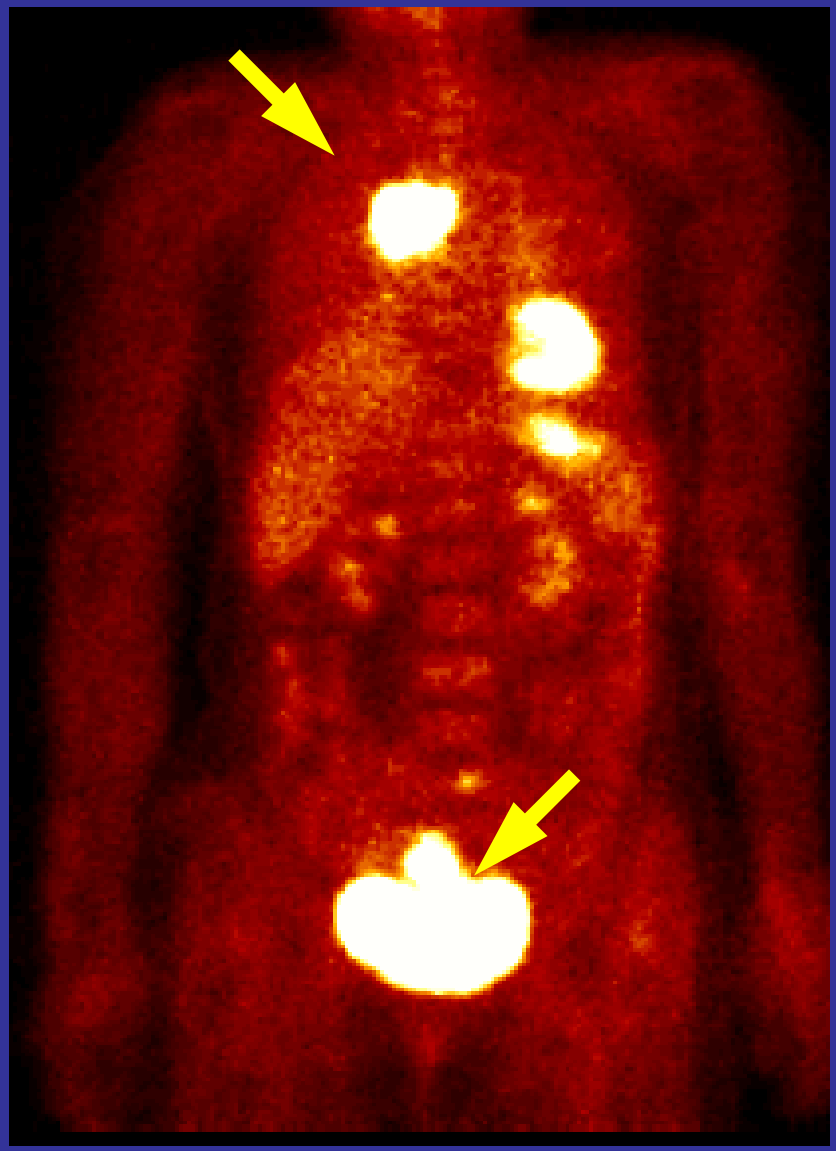
GIT

Porast CEA / CT negativan

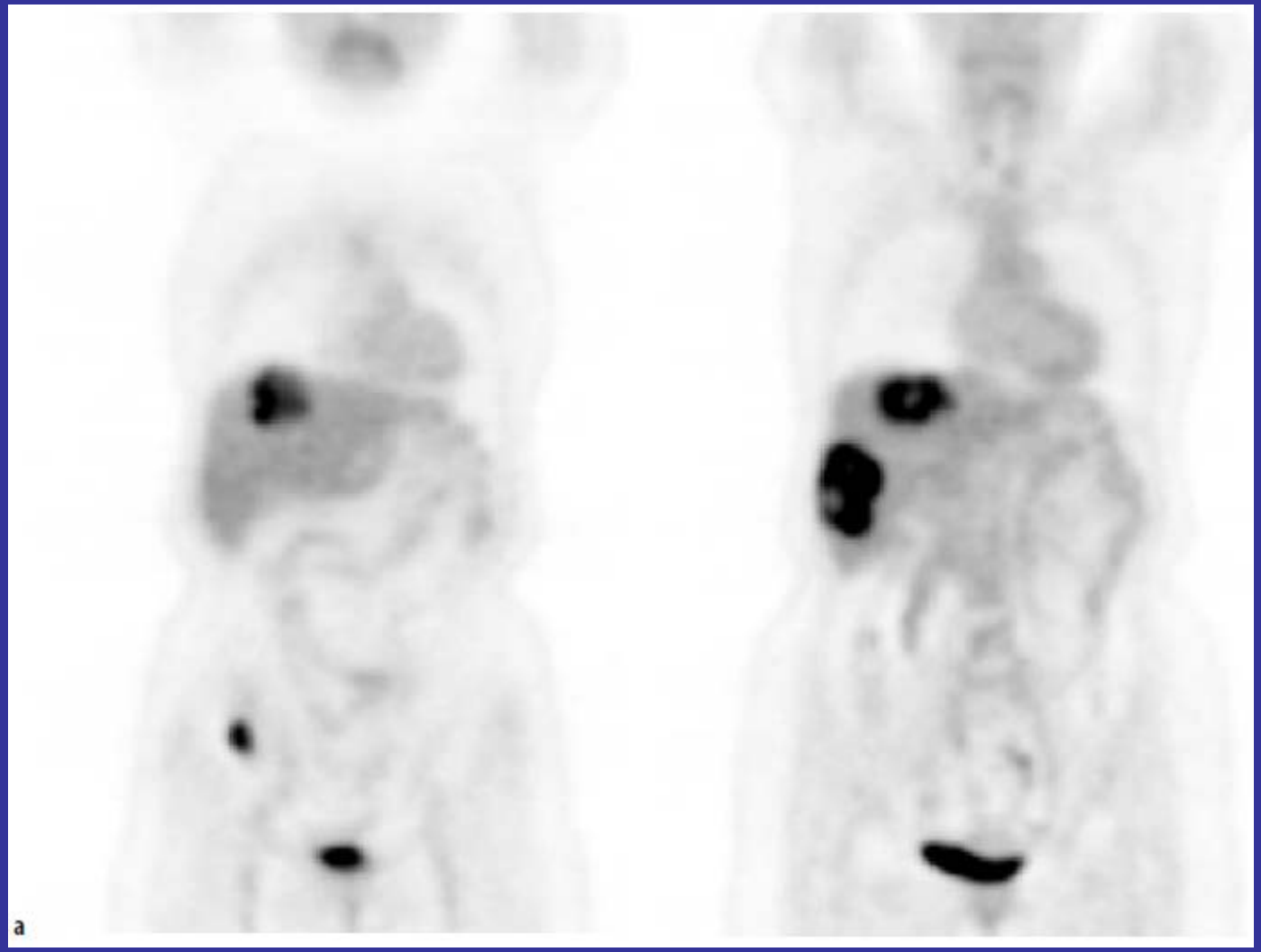


Karcinom kolona





Metastaze karcinoma kolona

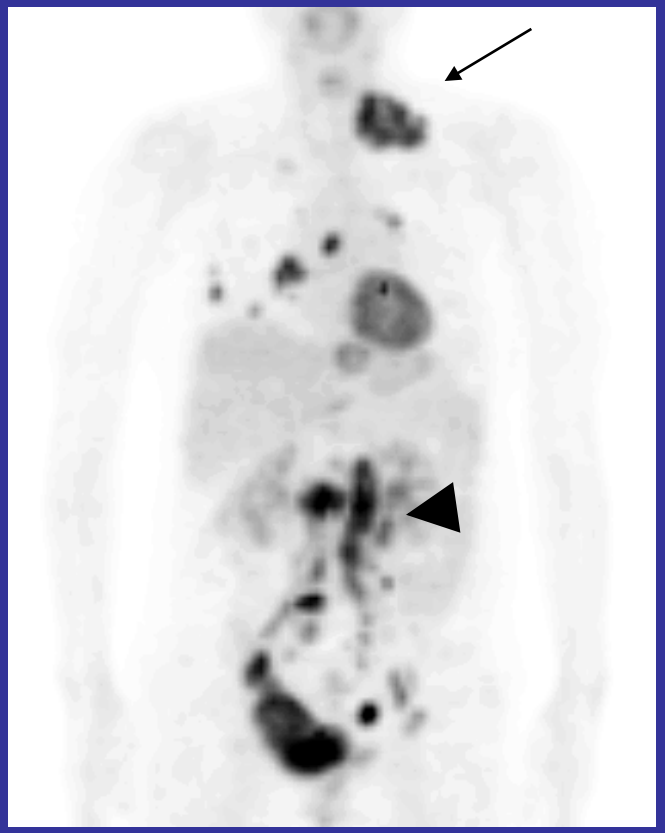


Primarni karcinom cekuma sa metastazama u jetri (koronalni presek $F^{18}DG$ –PET)

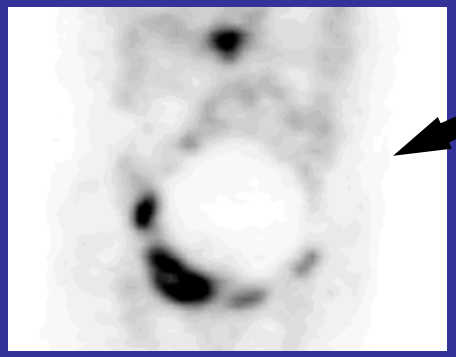
REPRODUKTIVNI ORGANI

Karcinom jajnika

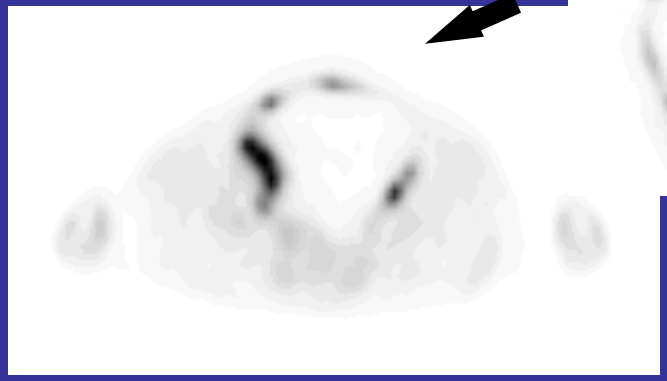
A



B1



B2

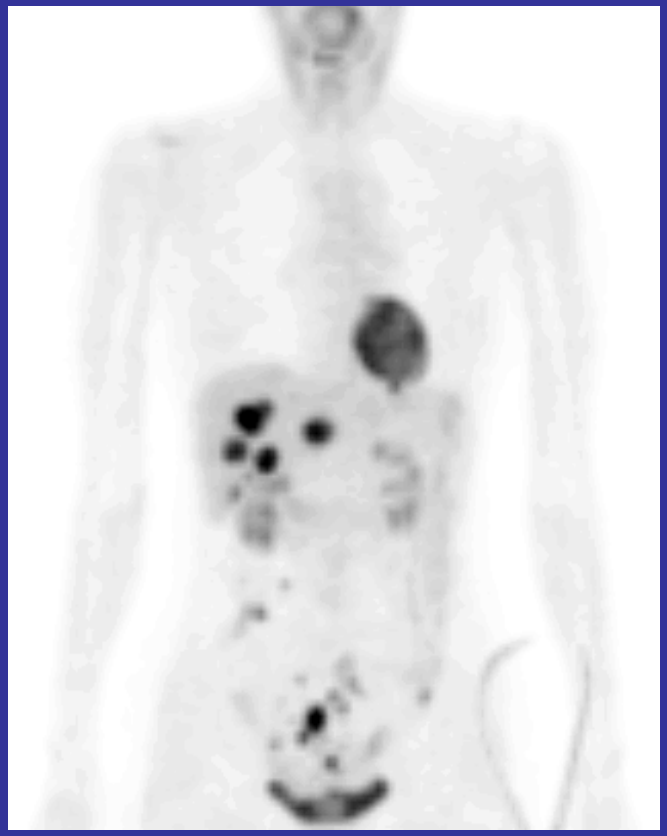


B3

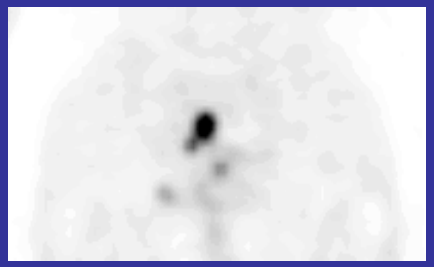


Karcinom jajnika

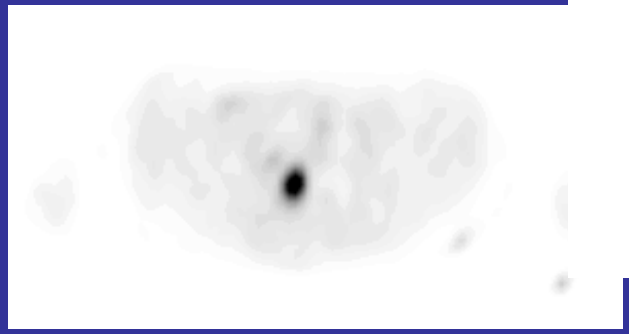
A



B1



B2



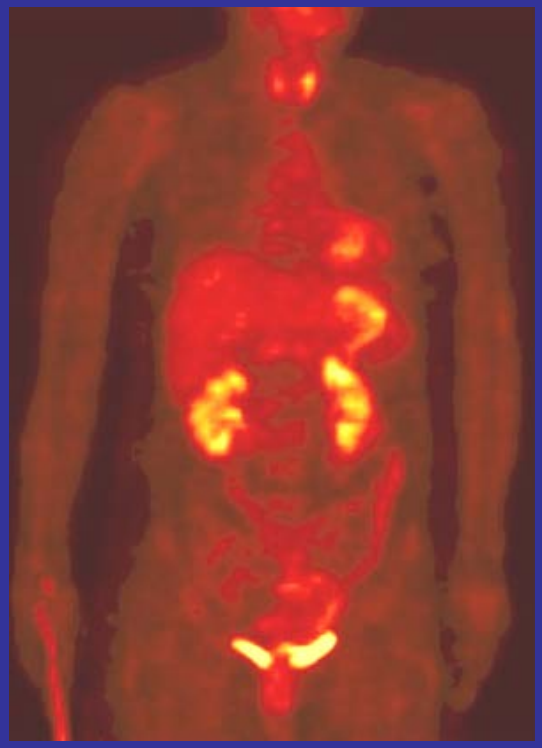
B3



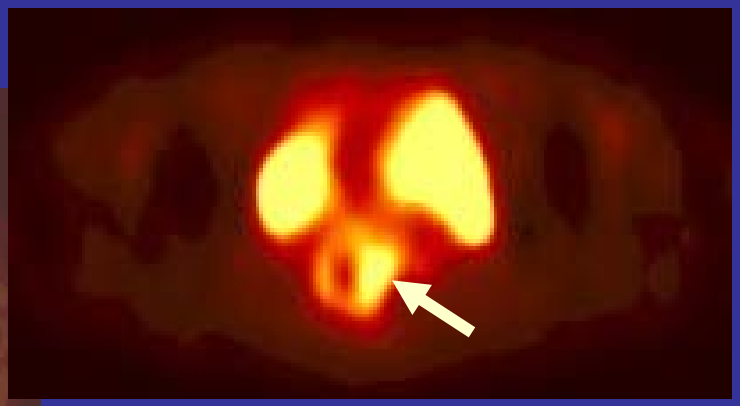
Povišen CA 19-9 posle operacije

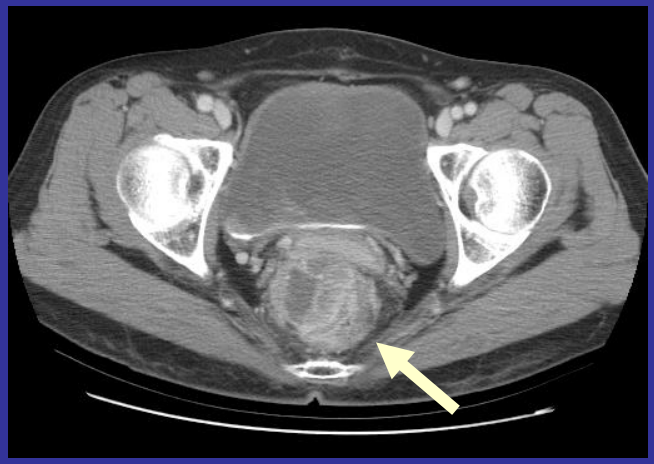
Postop
('02.1.29.)

Follow-up
('02.5.14.)







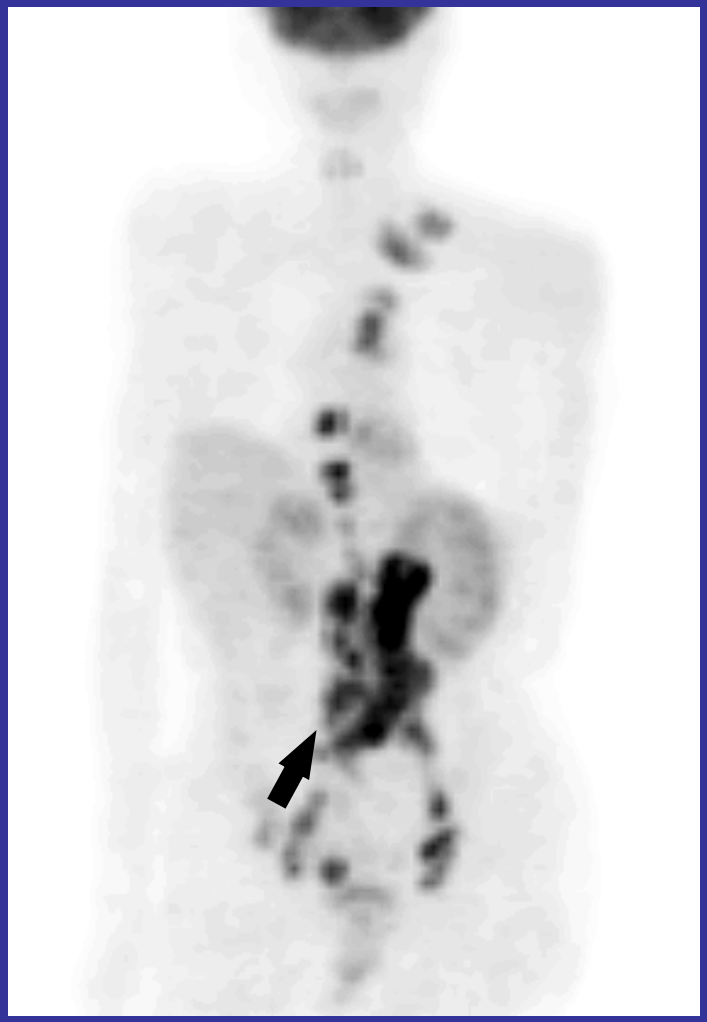


Bez recidiva i metastaza

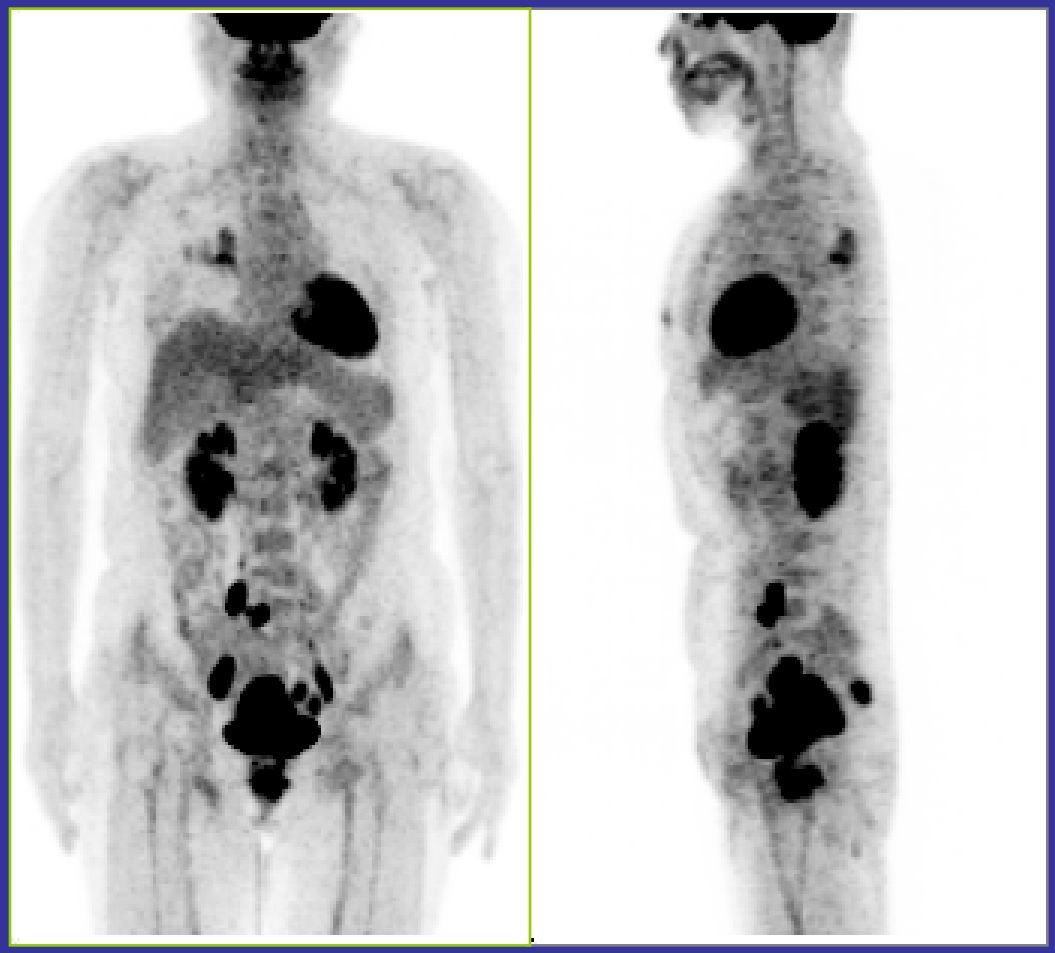
Lokalni recidiv

Karcinom jajnika

Karcinom cerviksa

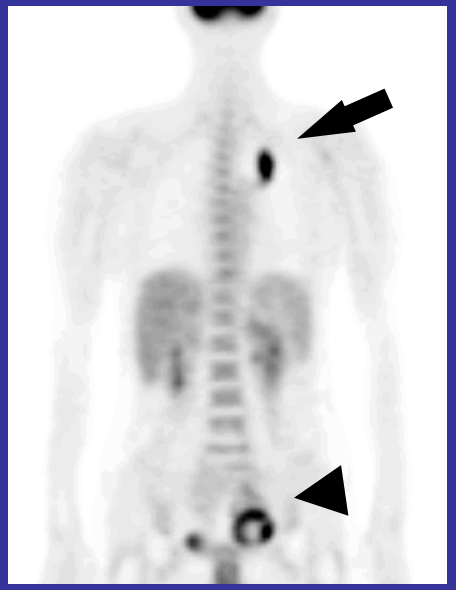


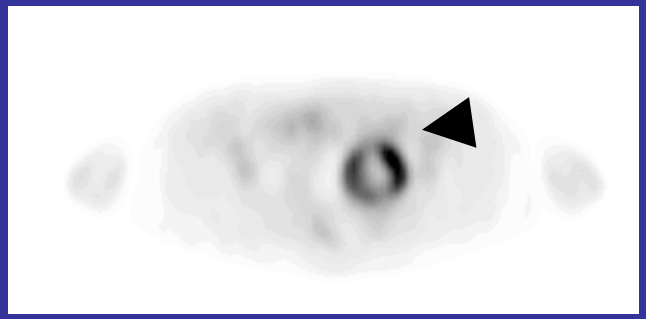
Karcinom cerviksa



Karcinom cerviksa

A

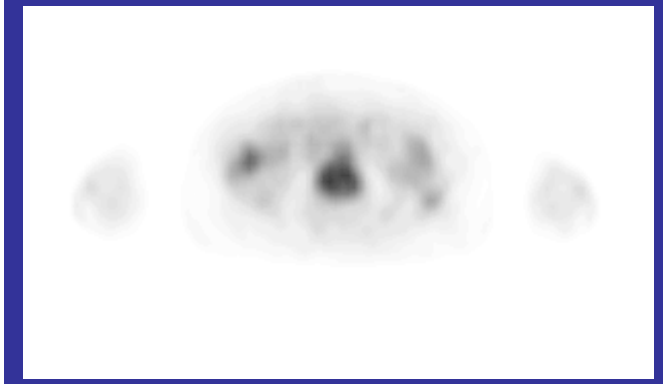






B





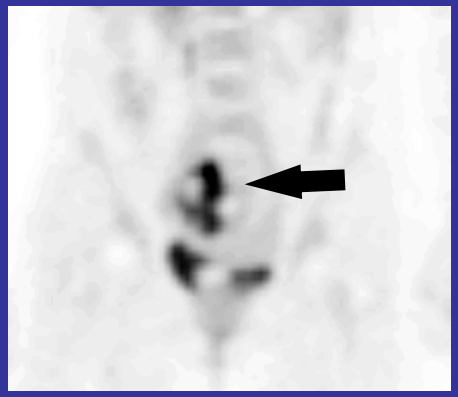


Sarkom uterusa

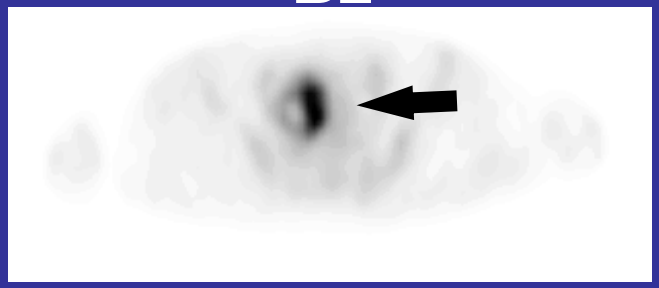
A



B1



B2



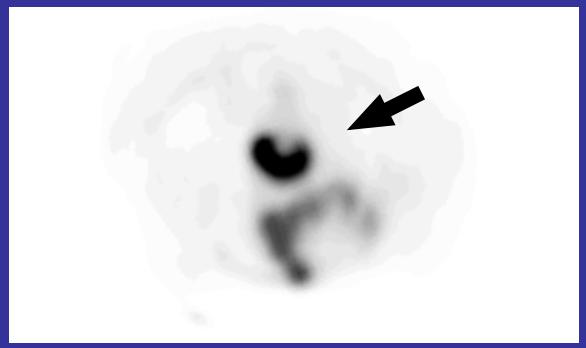
B3



Karcinom vulve



A



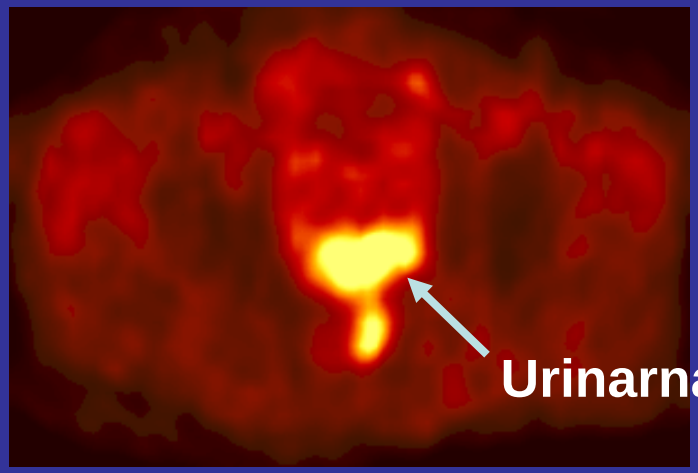
B

^{11}C-metionin PET u recidivu karcinoma jajnika

CT

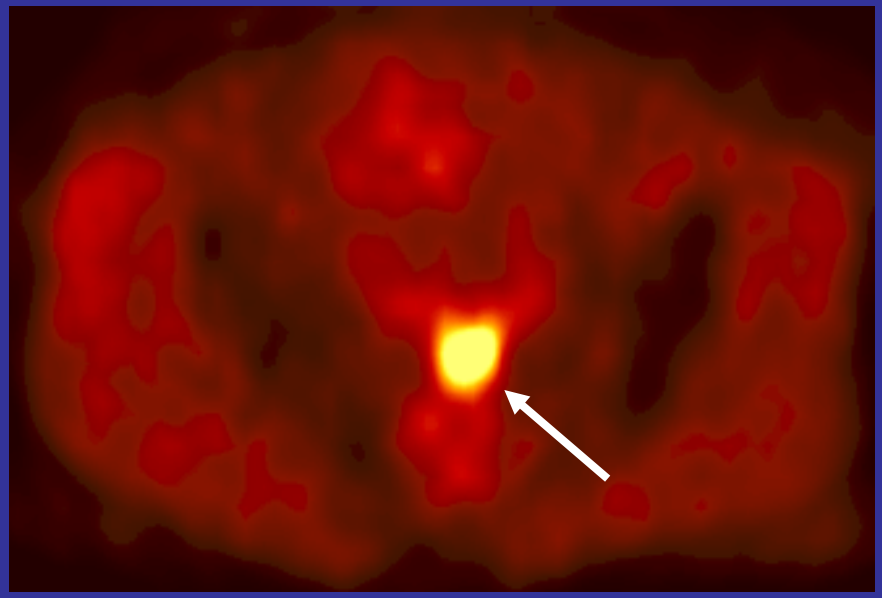


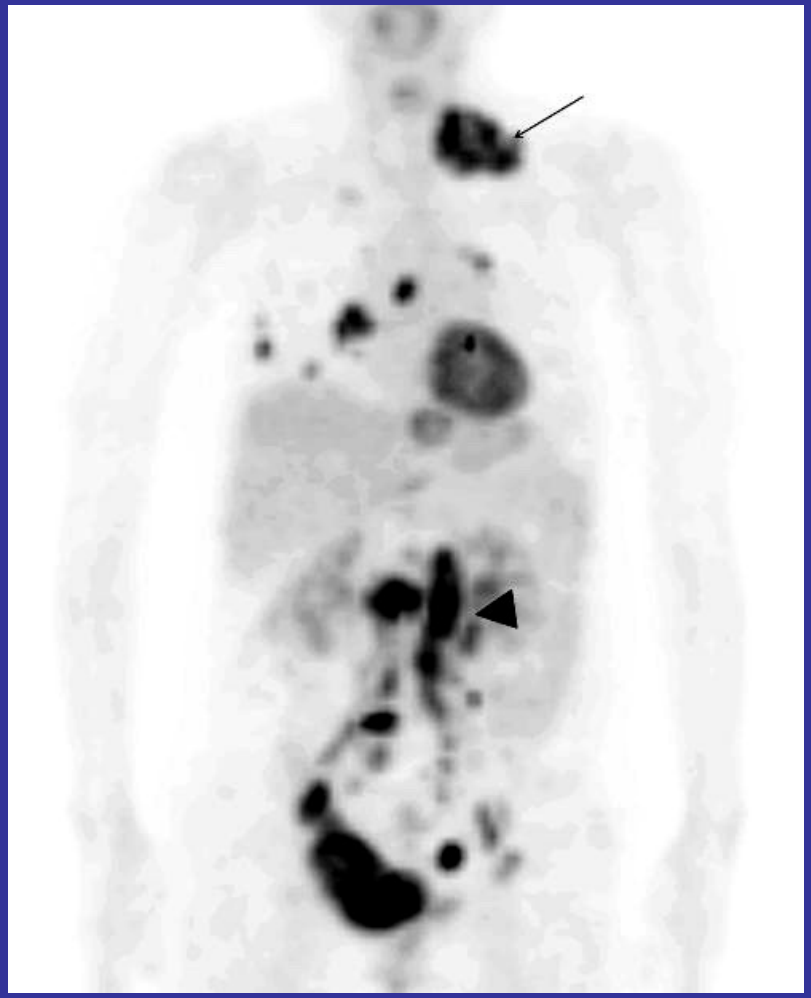
FDG PET



Urinarna aktivnost u bešici

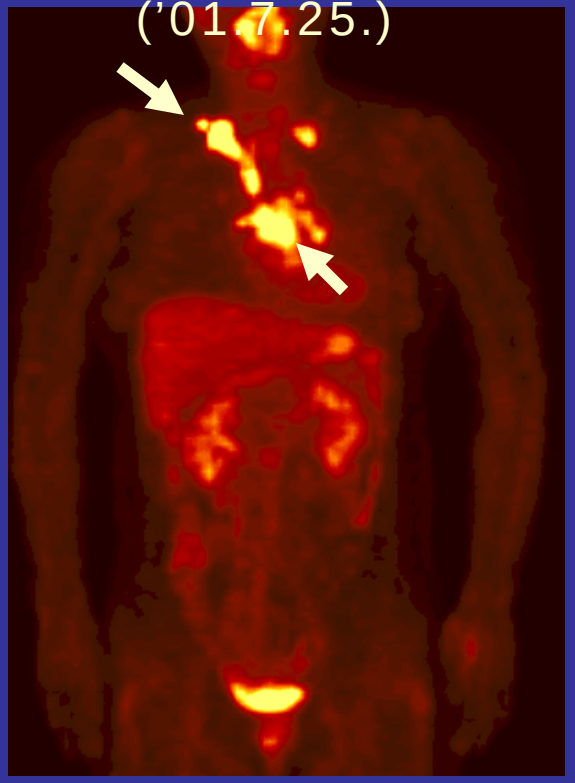
^{11}C-metionin PET





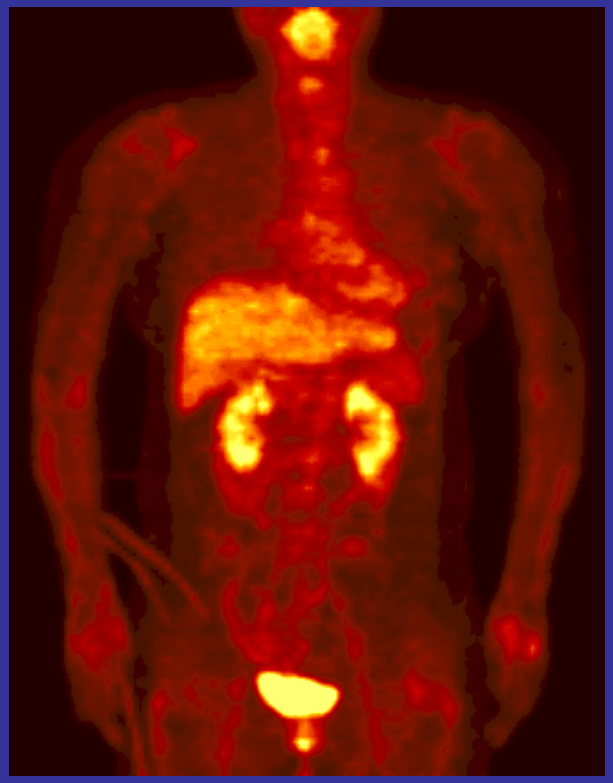
PET / 18FDG – zone pojačanog nakupljnja u tumoru adneksa desno (karcinom jajnika) i metastazama u paraaortalnim limfnim žlezdama (strelica), jetri, plućima i supraklavikularnim limfnim žlezdama (isprekidana strelica).

Pre terapije
('01.7.25.)



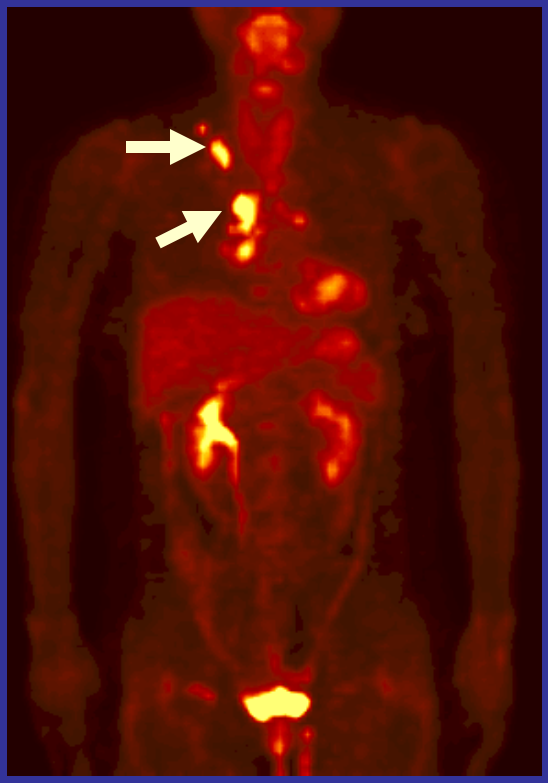
Metastaze u medijastinumu

Posle terapije
('01.12.14.)



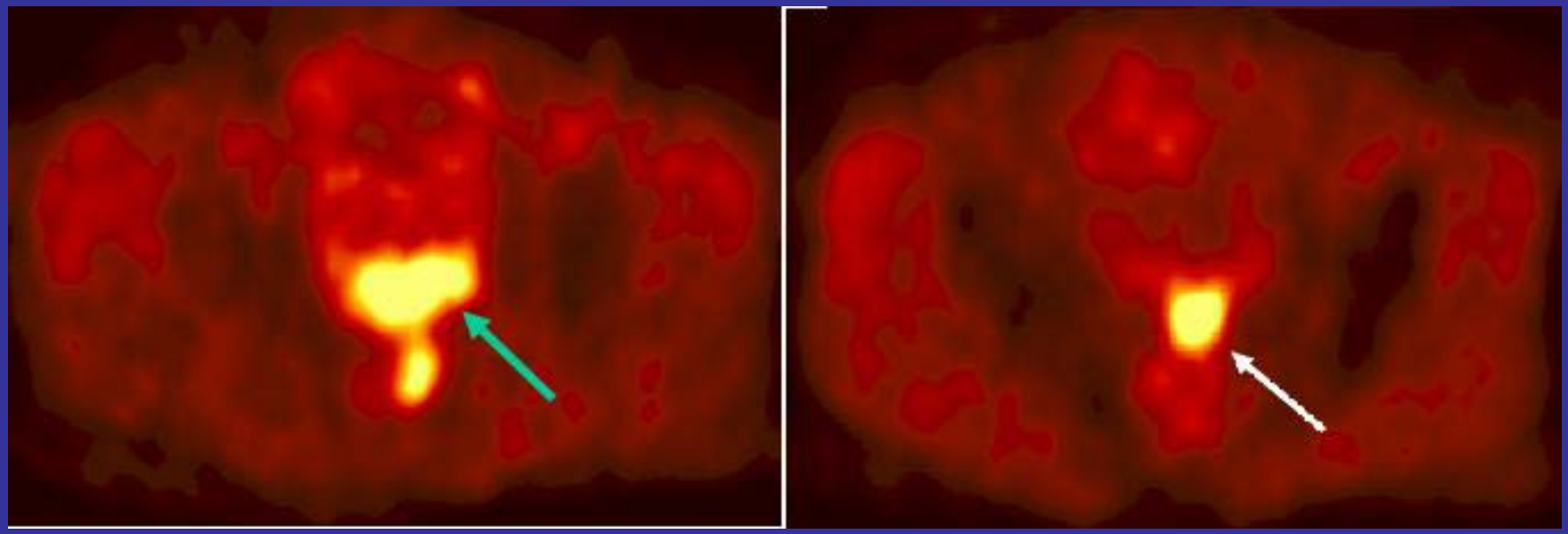
Kompletna remisija

Recidiv
('02.4.16.)



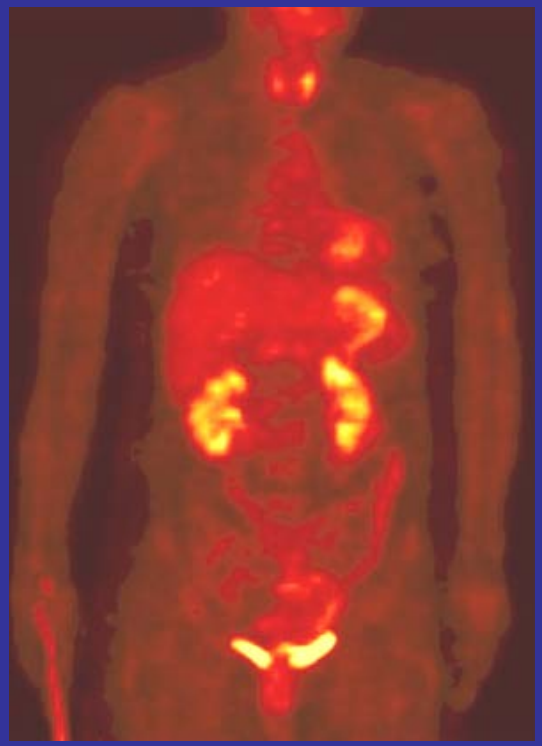
Recidiv

Karcinom cerviksa



PET male karlice (transverzalni presek)/ levo 18FDG: fiziološko nakupljanje radiofarmaka u mokraćnoj bešici (strelica); desno 11C-metionin: manja zona nakupljanja (strelica) neuočljiva na slici levo zbog superpozicije sa bešikom (recidiv karcinoma jajnika).

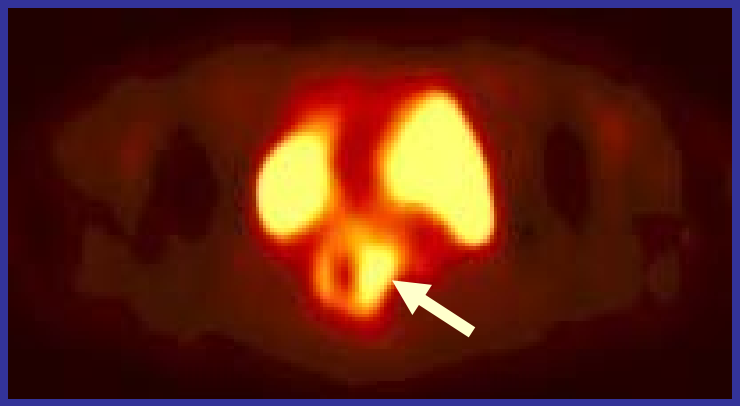
Postop
('02.1.29.)

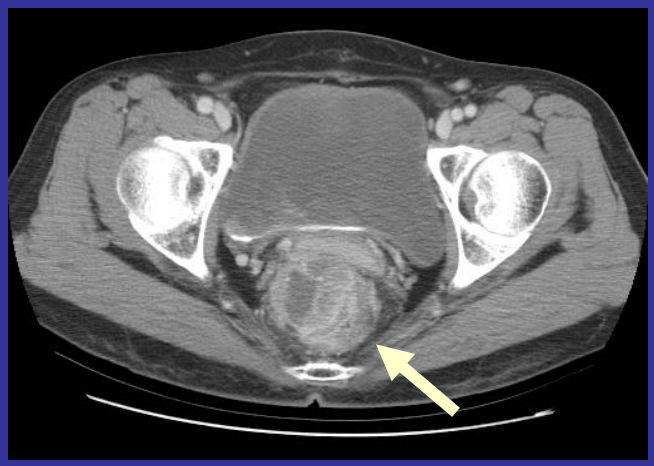




Nema recidiva

Follow-up
('02.5.14.)



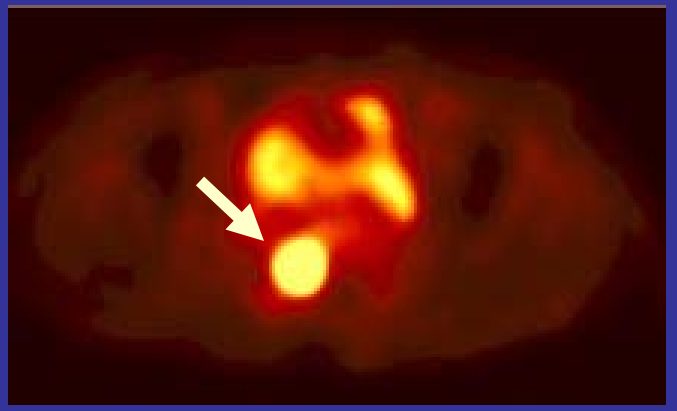


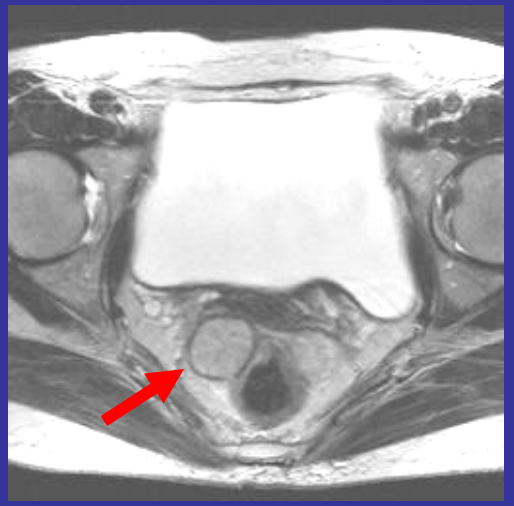
Lokalni recidiv

Karcinom jajnika









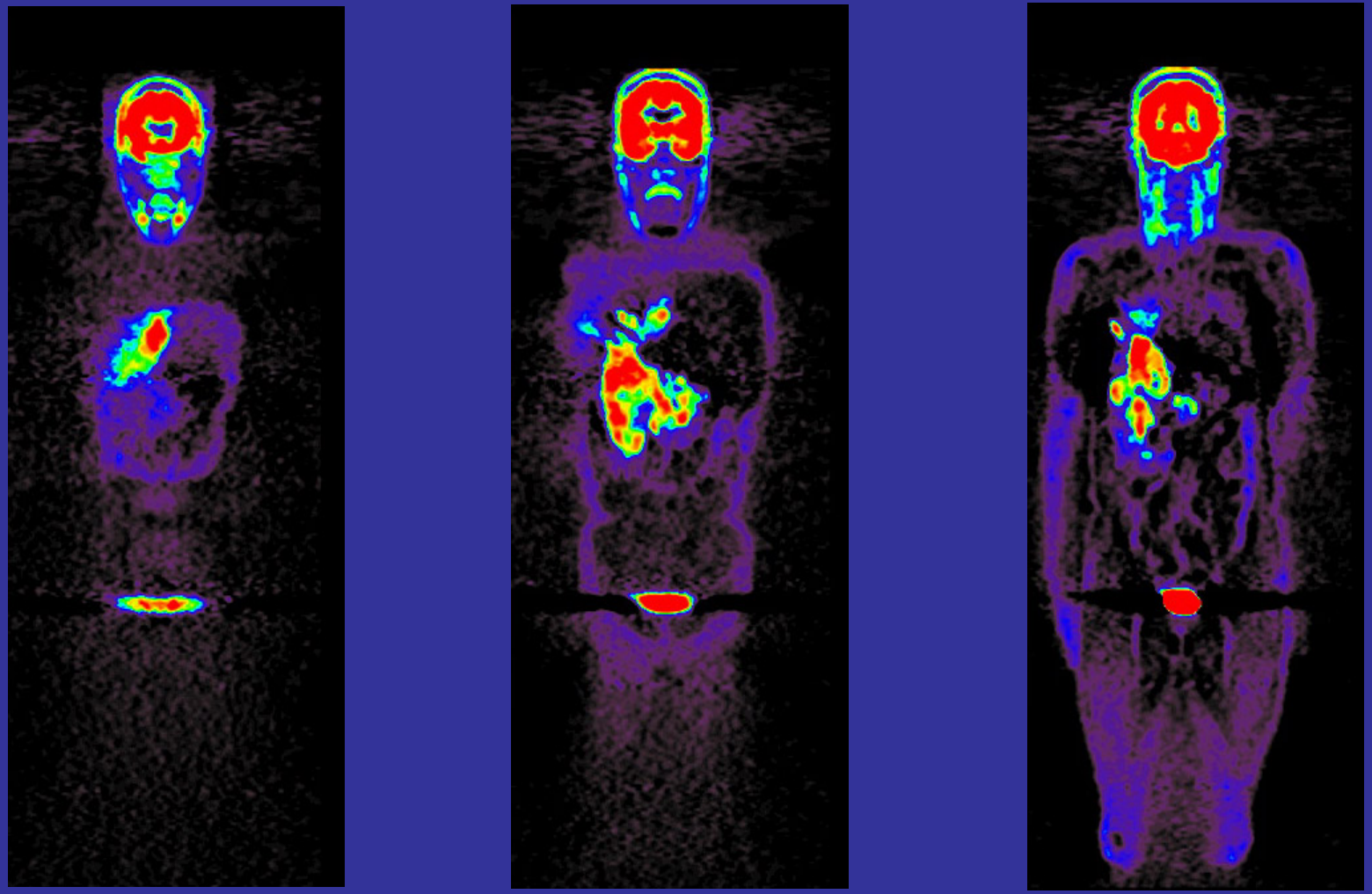
Karcinom jajnika

DOJKA

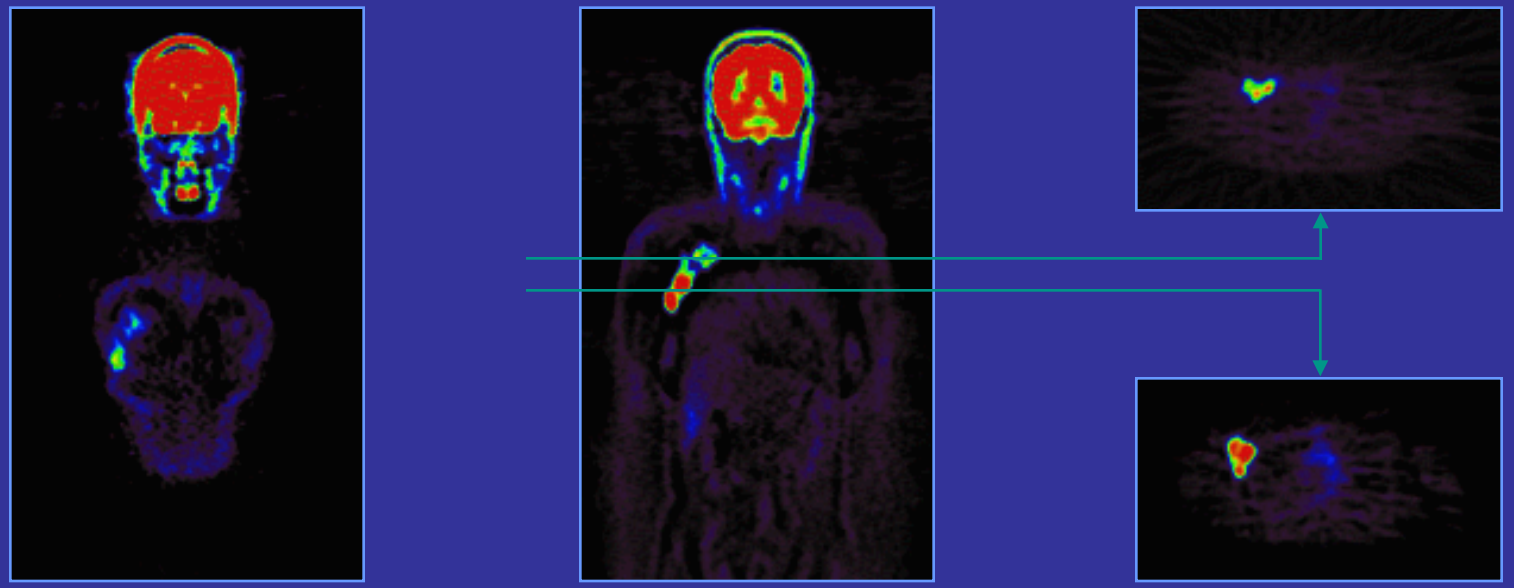


PET / 18FDG – karcinom desne dojke sa metastazama u regionalnim limfnim žlezdama.

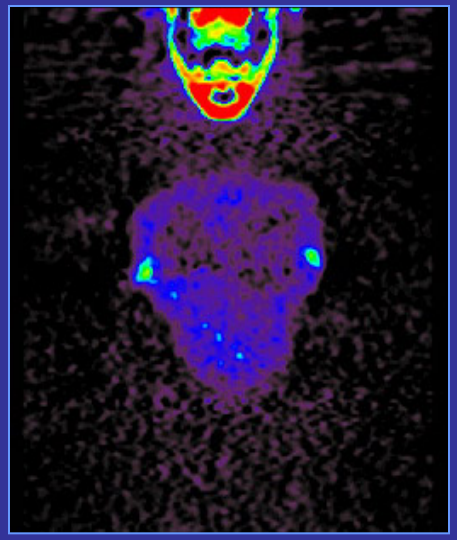
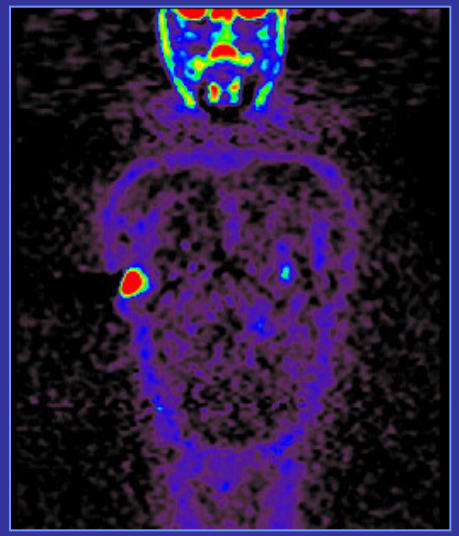
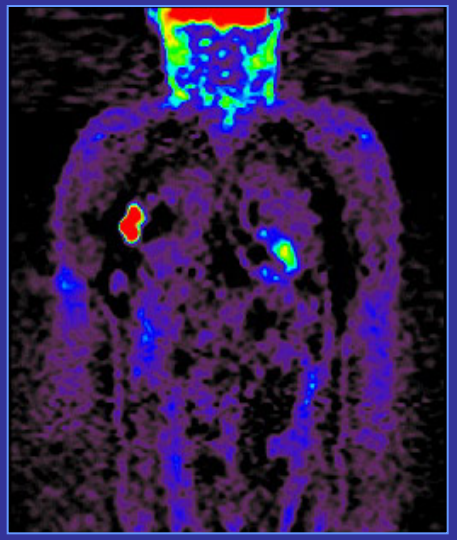
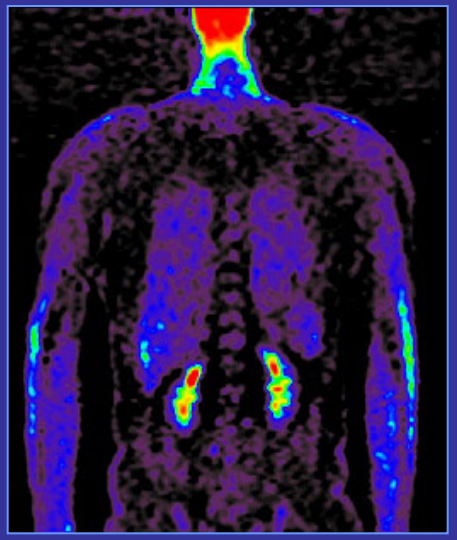
Recidiv karcinoma dojke



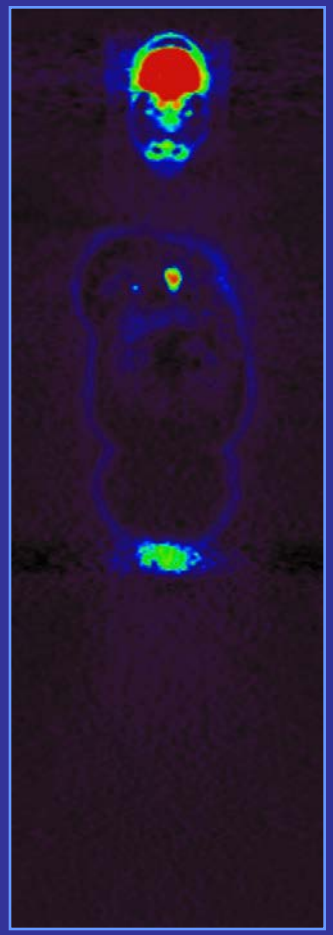
Karcinom dojke sa metastazama u aksilarnim limfnim žlezdama

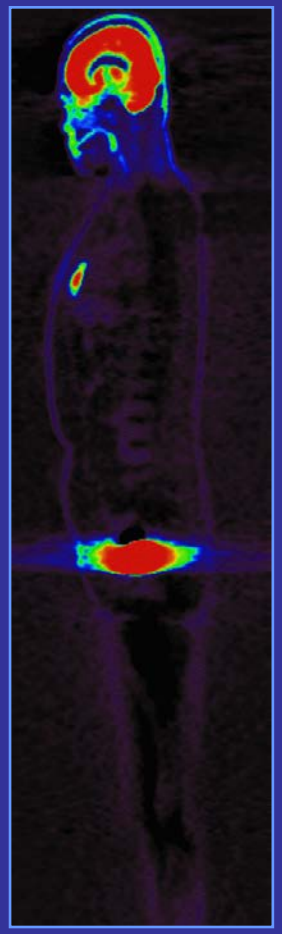


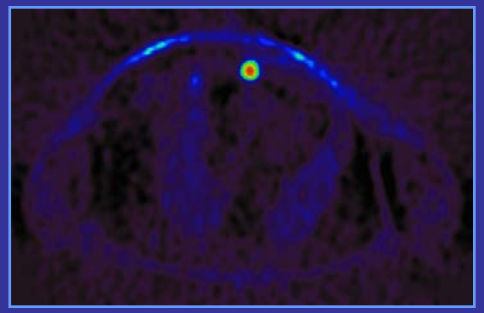
Karcinom dojke sa metastazama u aksilarnim limfnim žlezdama

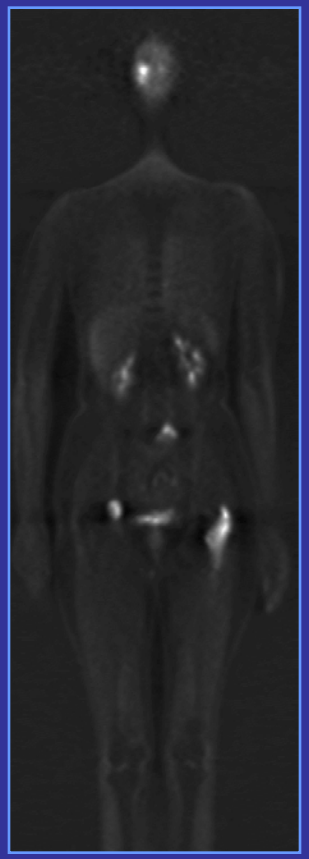
Karcinom dojke sa metastazama u internim mamarnim l.n.

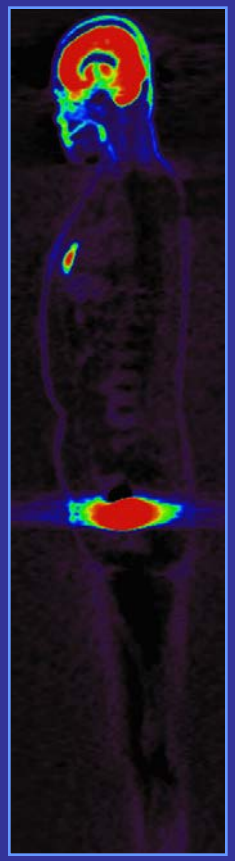


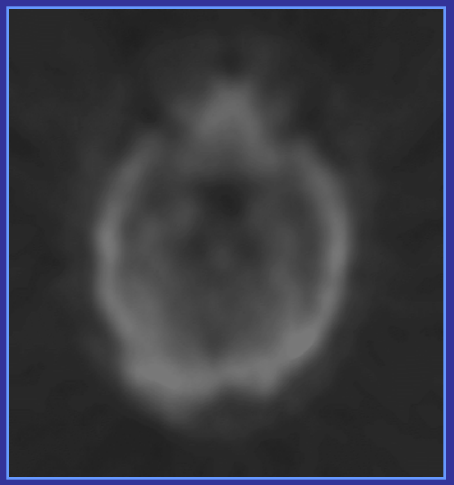




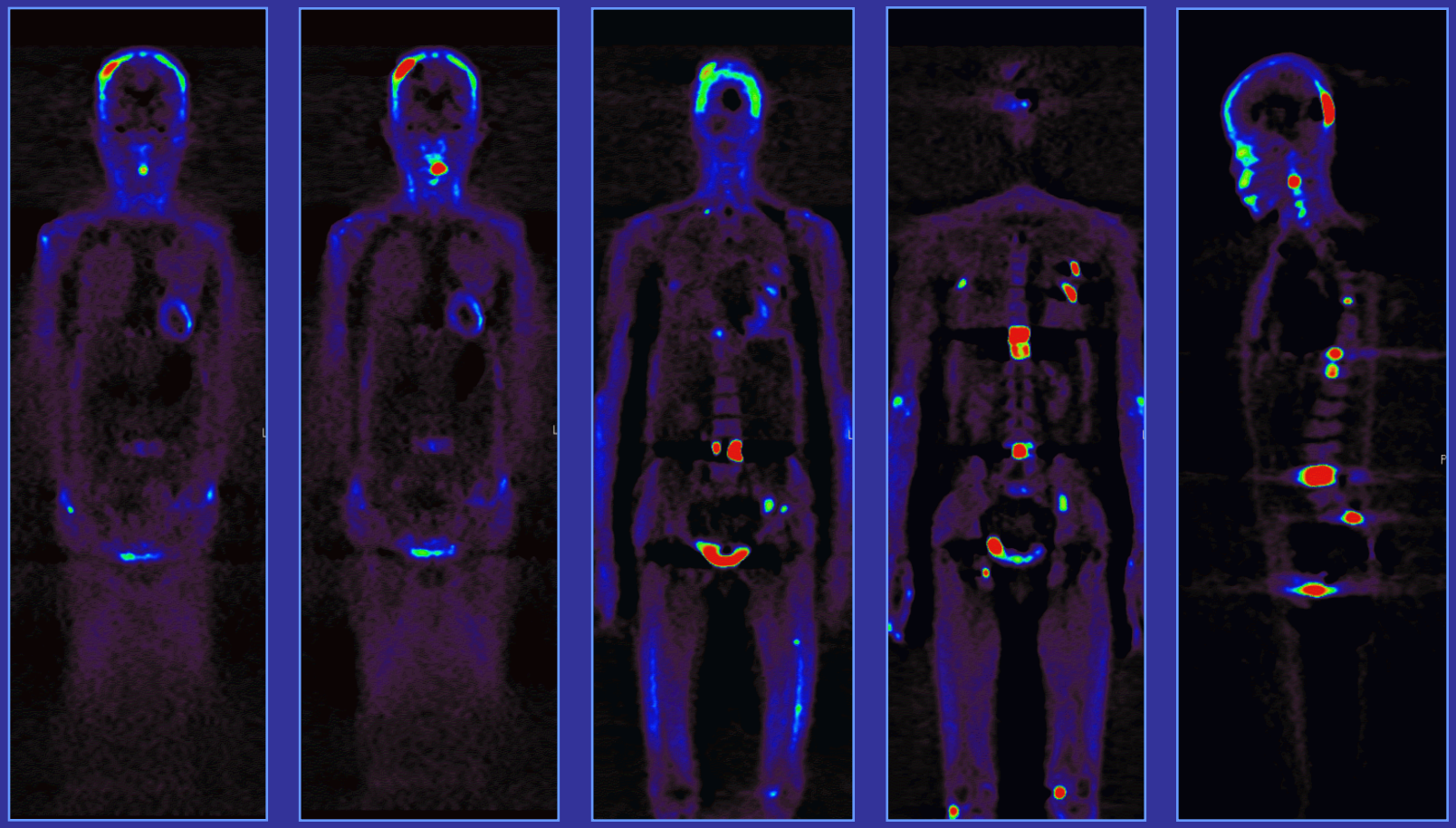
Metastaze karcinoma dojke u kostima



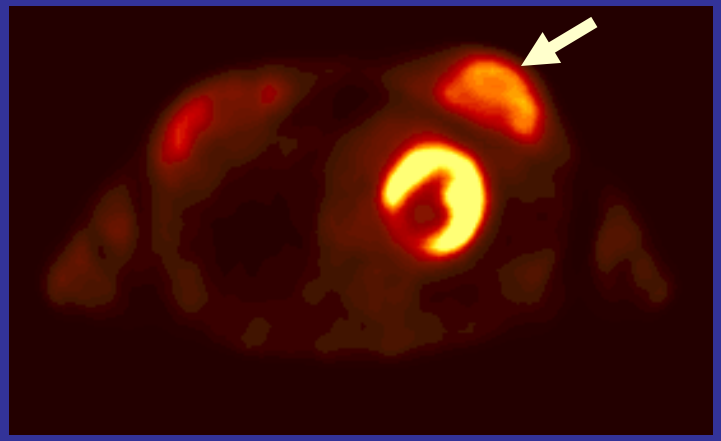




Metastaze karcinoma dojke u kostima



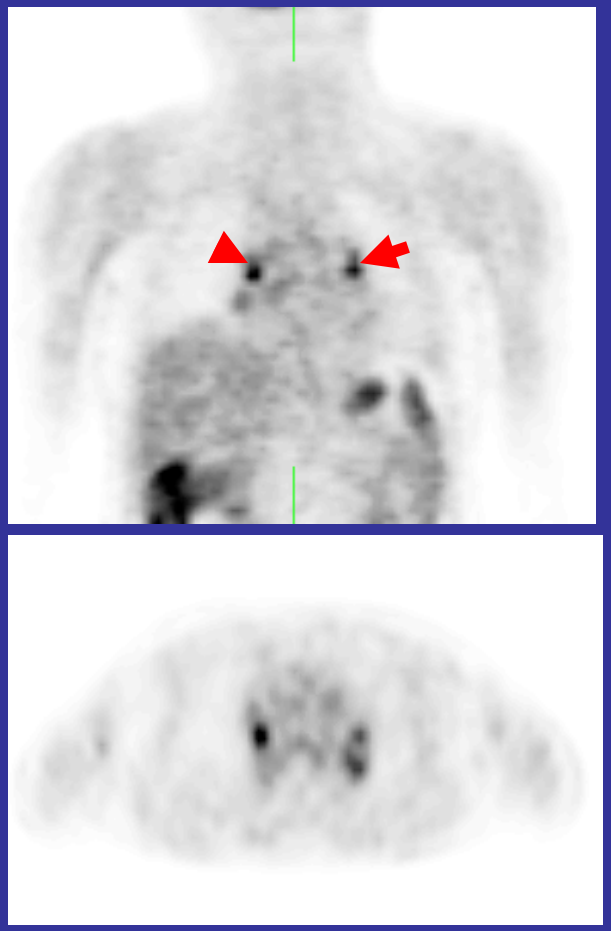




Karcinom dojke

LIMFOM

pre terapije(’02.3.5.)



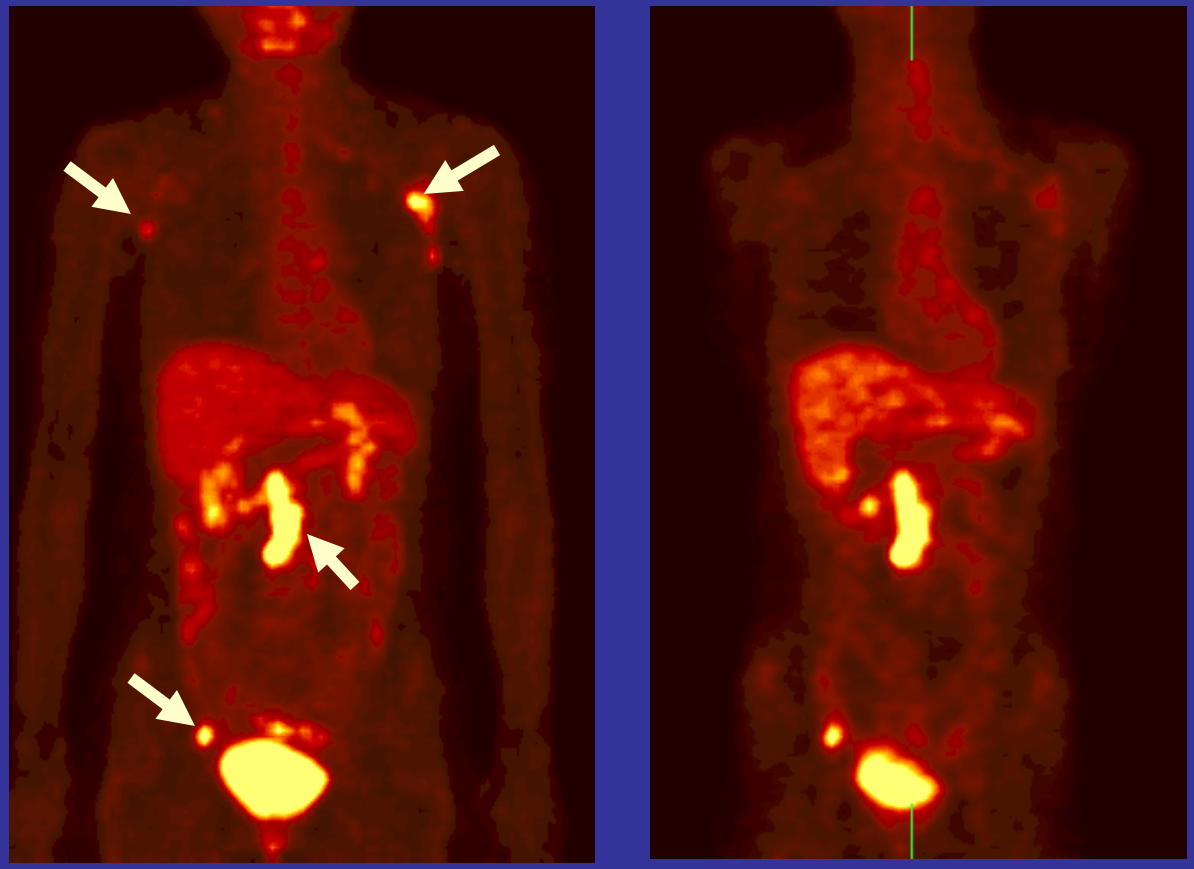
posle hemioterapije (’02.5.13.)



Limfom



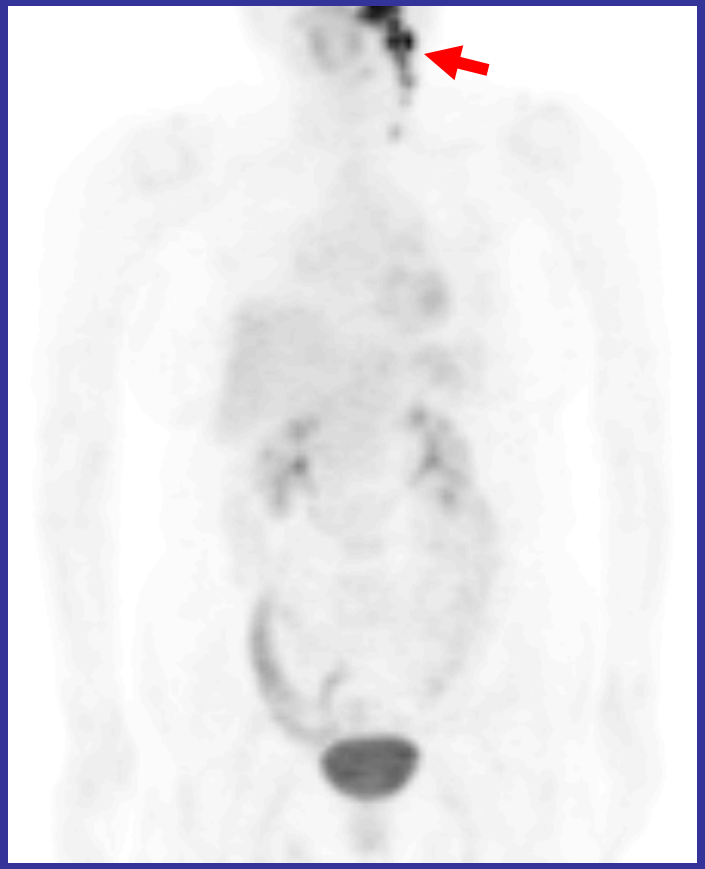
Hodžkinov limfom: fokalno nakupljanje $F^{18}DG$ u vratu, u levom hilusu i supraklavikularno desno



“Staging” Lymphoma

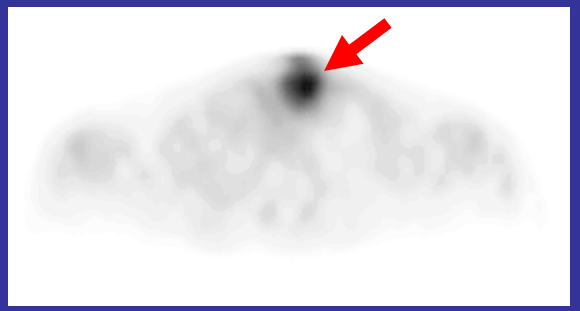
ENDOKRINOLOGIJA

Metastaze u jugularnim LN

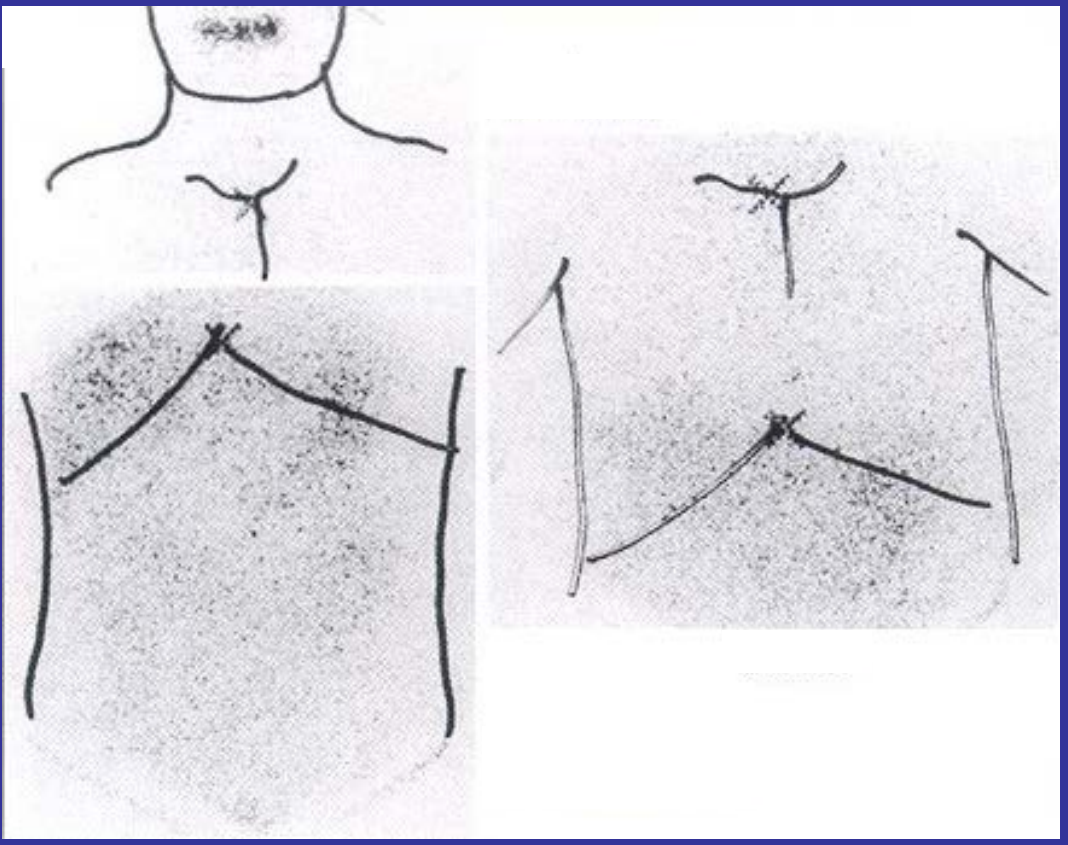


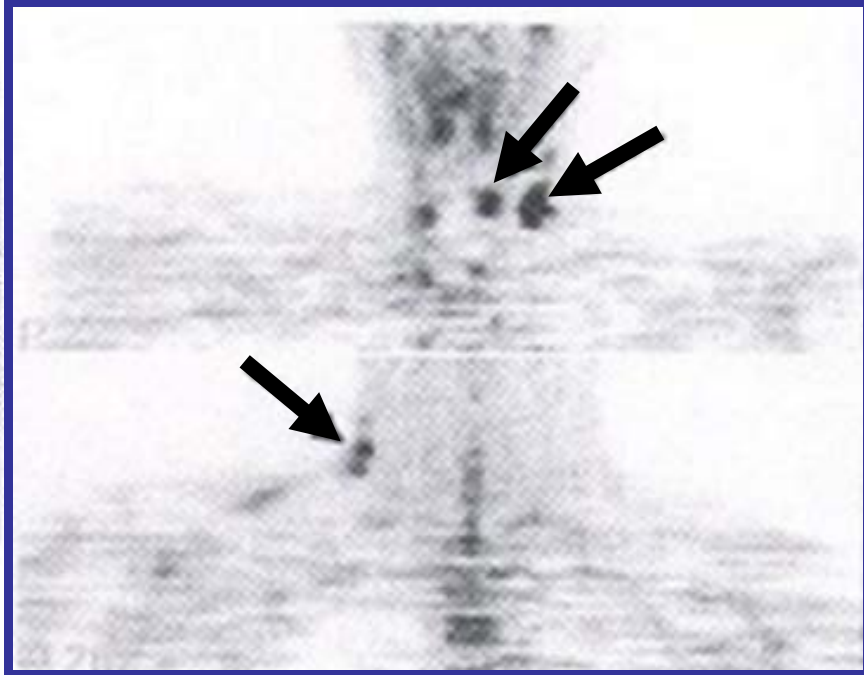
Postoperativne medijastinalne metastaze





Karcinom štitaste žlezde

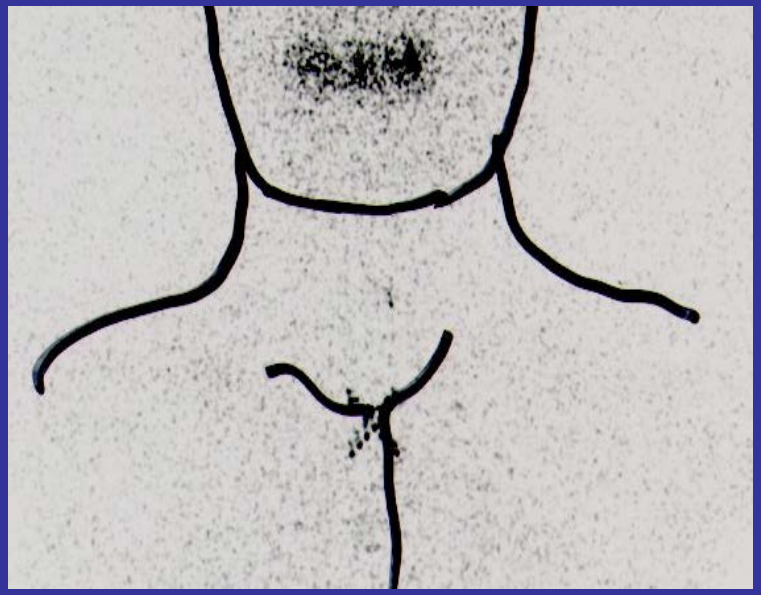




FDG PET posle negativne ^{131}I-scintigrafije

Karcinom štitaste žlezde-metastaze u cervikalnim LN

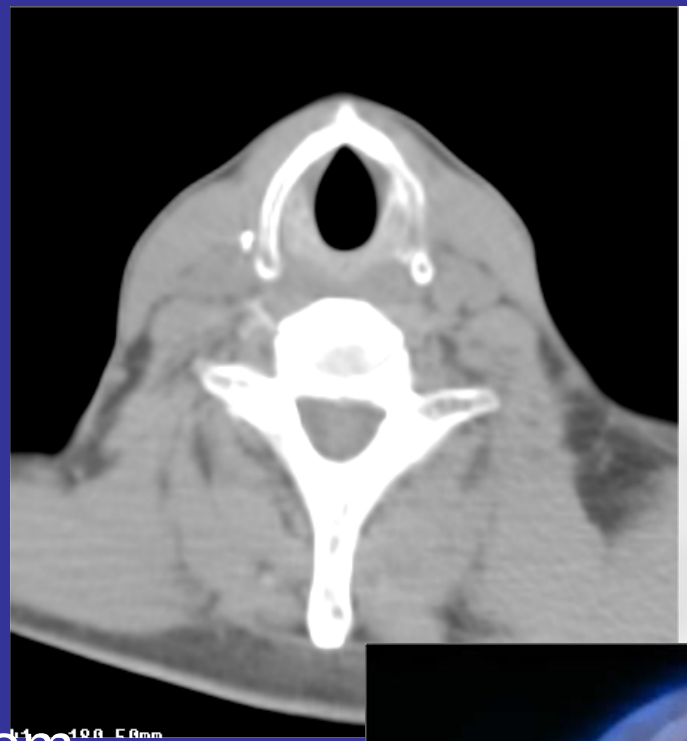
Karcinom štitaste žlezde - I-131 negativan and F-18 FDG PET pozitivan

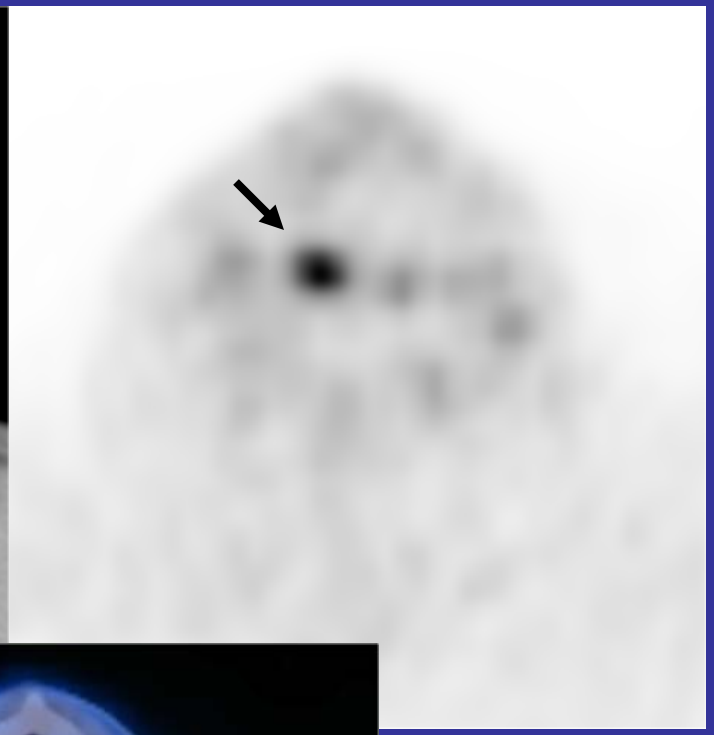


I-131



F-18 FDG PET







Papilarni karcinom

s/p totalne tireoidektomije

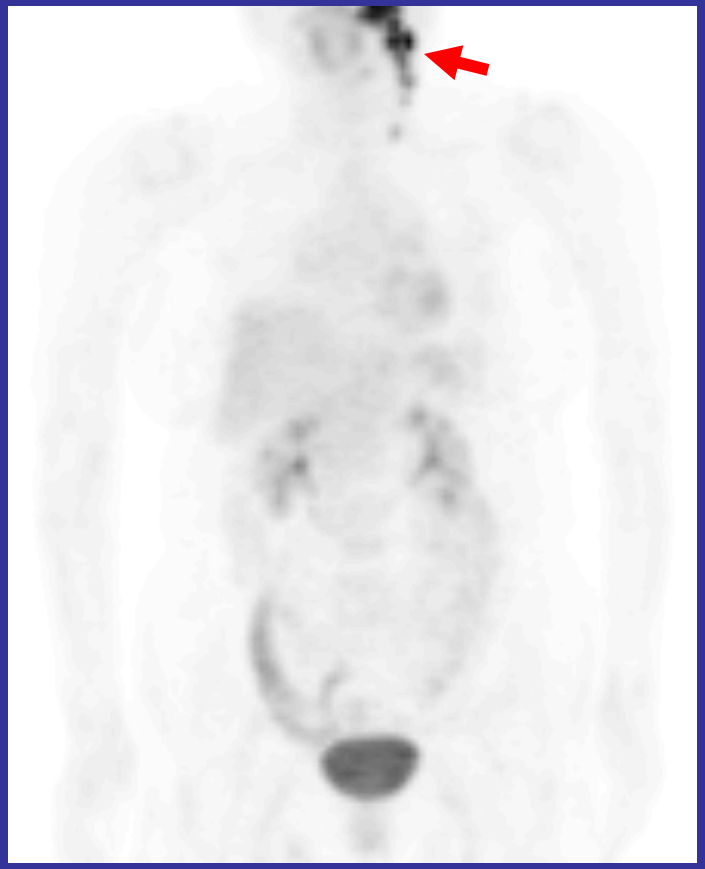
i 131 I terapije.

Tg: negative

TgAb : negative

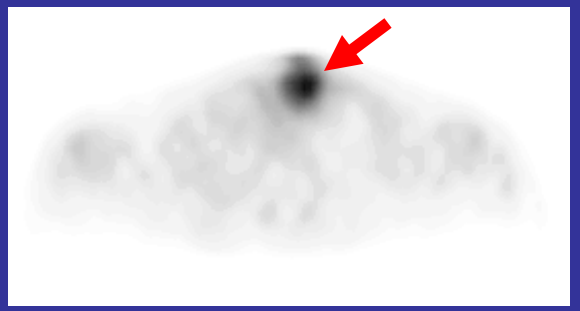
Max SUV 4.3

Metastaze u limfnim nodusima vrata



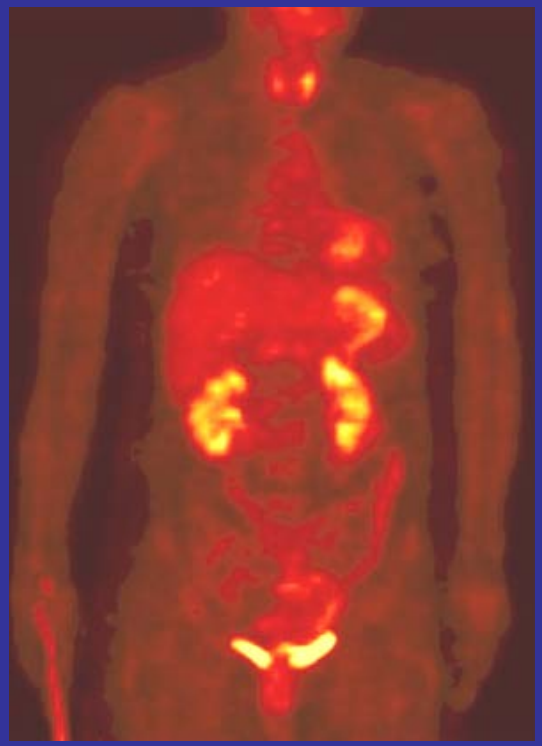
Postoperativno- metastaze u medijastinumu





Karcinom štitaste žlezde

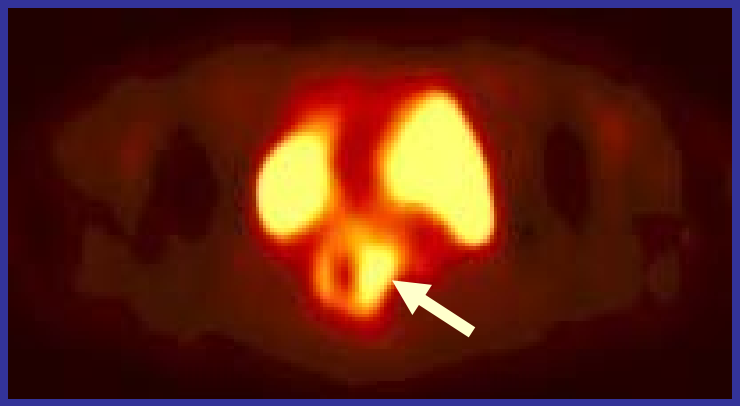
Postop
('02.1.29.)

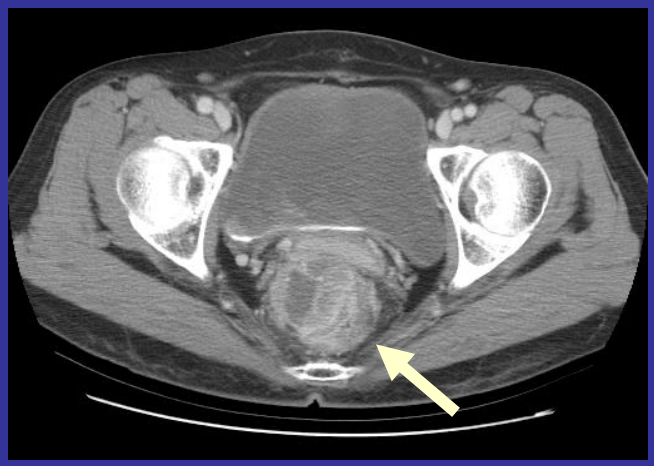




Nema recidiva

Follow-up
('02.5.14.)



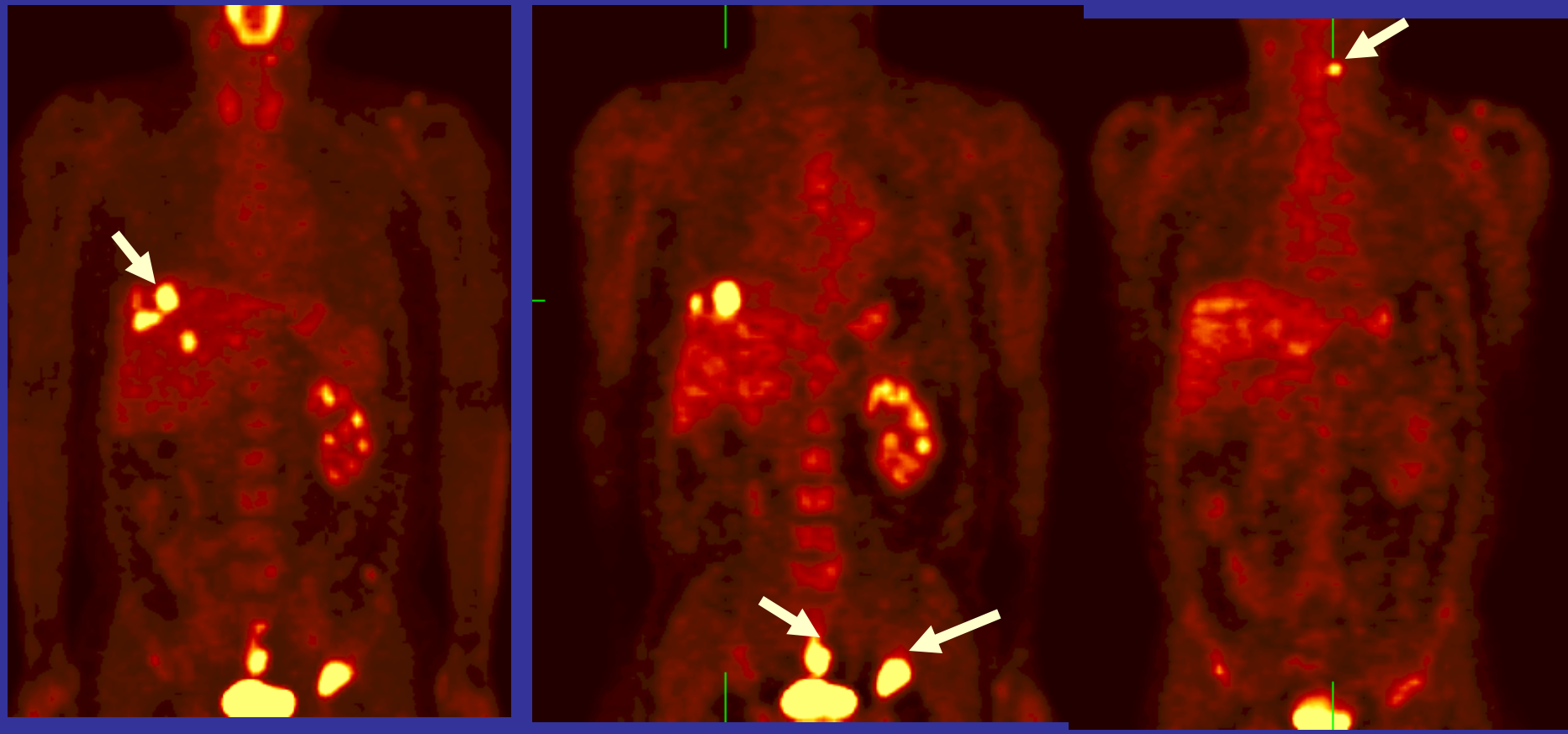


Lokalni recidiv

Karcinom jajnika

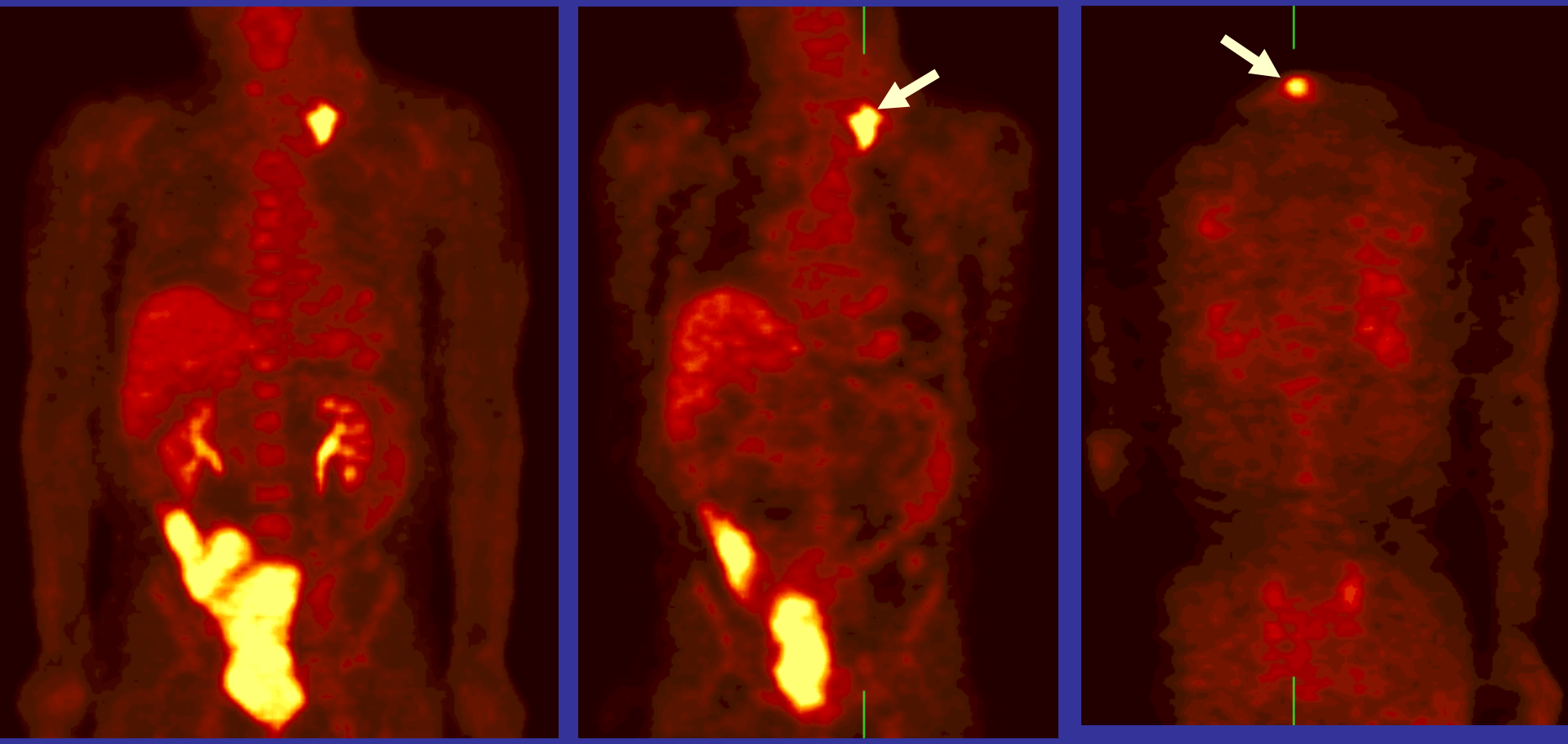
NEFROUROLOGIJA

s/p Desna nefrektomija. Promena u jetri.



Karcinom bubrega

s/p Cistektomija sa ilealnom “neobešikom”



Karcinom bešike

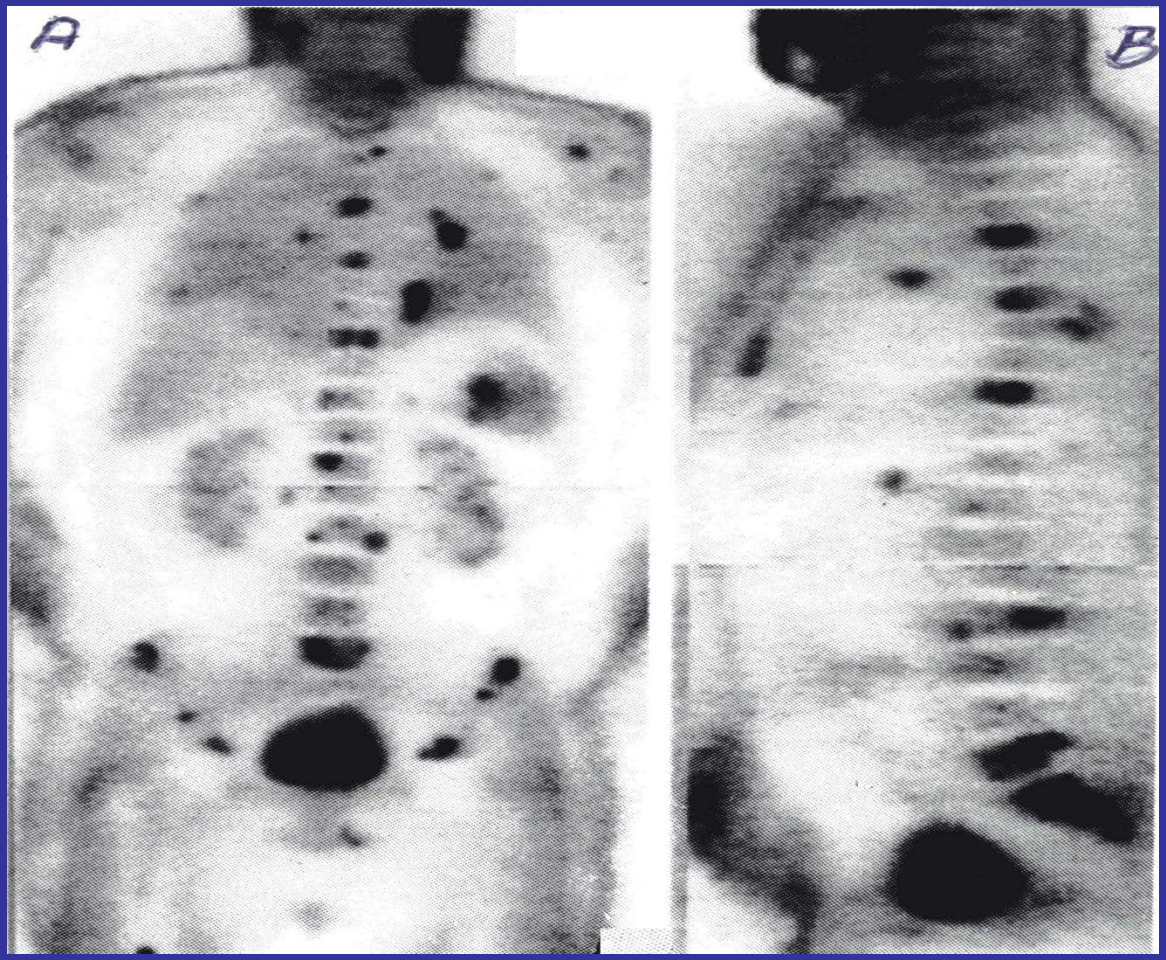
MELANOM





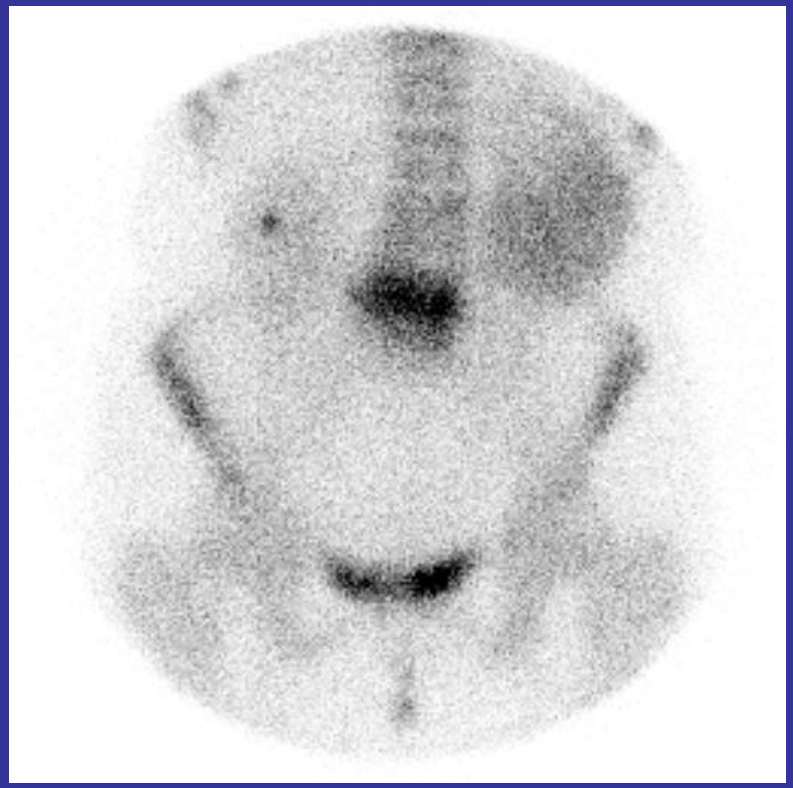
Maligni melanom

MUSKULOSKELETNI SISTEM

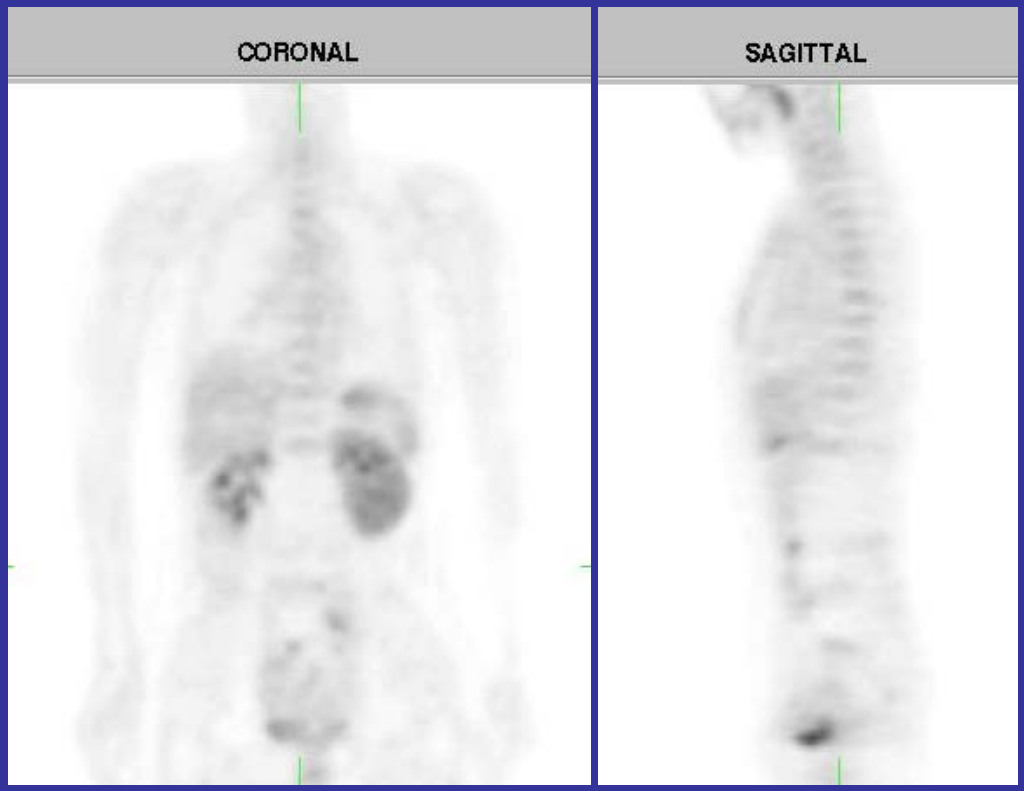


PET / 18FDG – a) frontalni i b) sagitalni: brojne zone povišenog nakupljanja 18F-FDG u aksijalnom i perifernom skeletu u bolesnika sa nehočkinskim limfomom kod koga je scintigrafija kostiju bila normalna; PET je osetljiviji od scintigrafije skeleta

Scintigrafija skeleta
(toplo polje u *L5*)



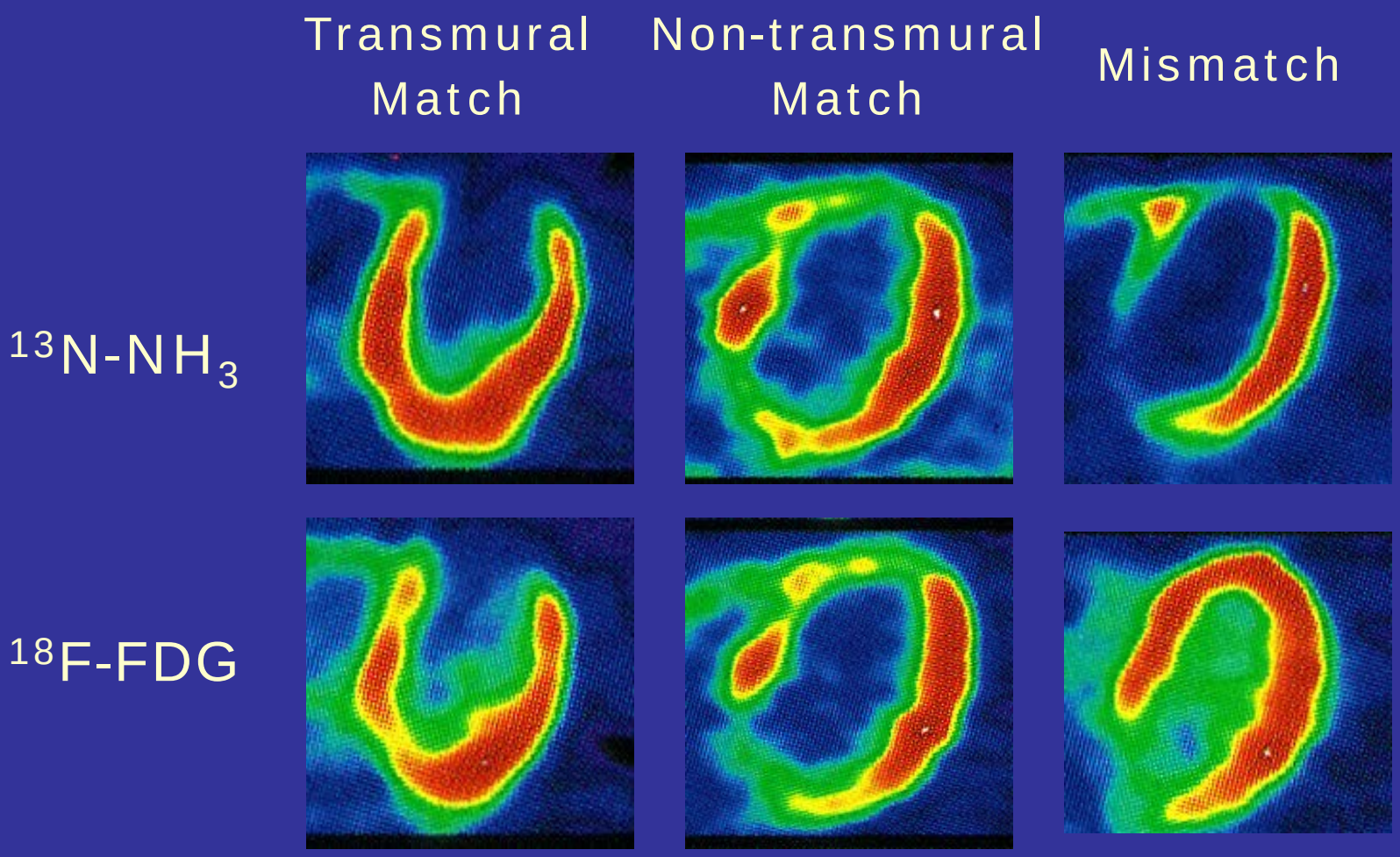
FDG PET
(Hipometabolizam u *L5*)



Kompresiona fraktura posle radioterapije

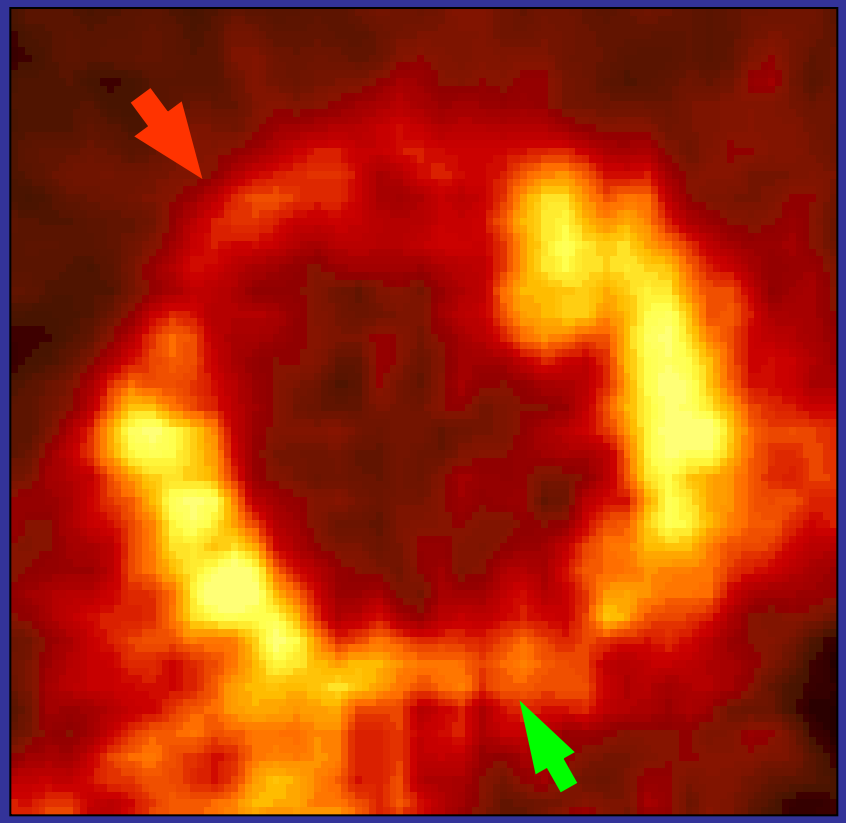
KARDIOLOGIJA

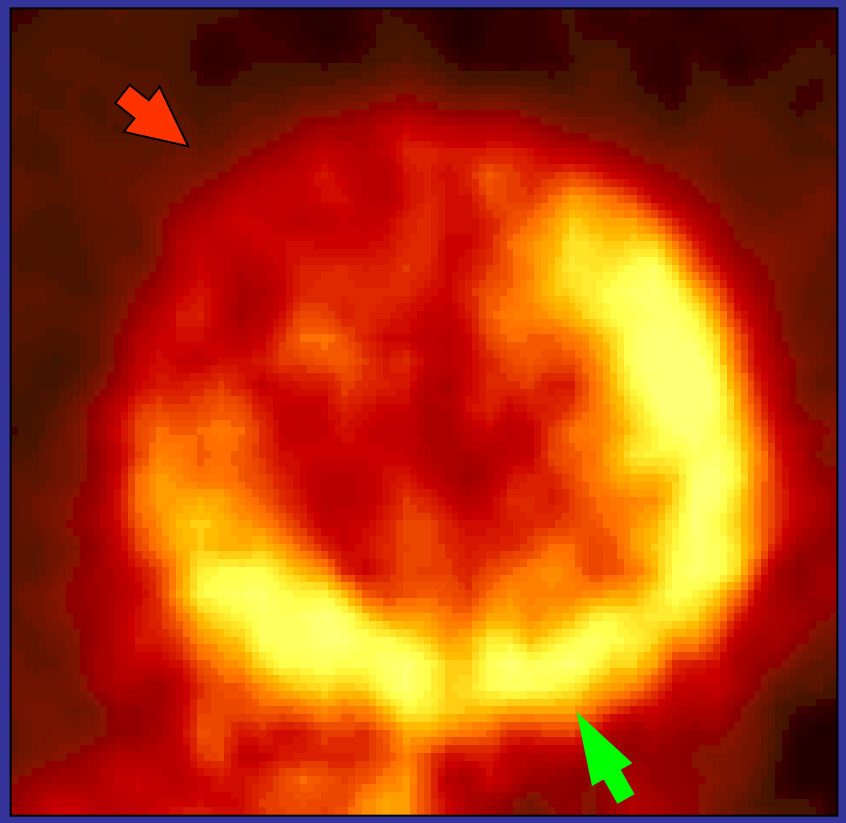
PET **u proceni vijabilnosti miokarda**



$^{13}NH_3$ - PET

^{18}FDG - PET



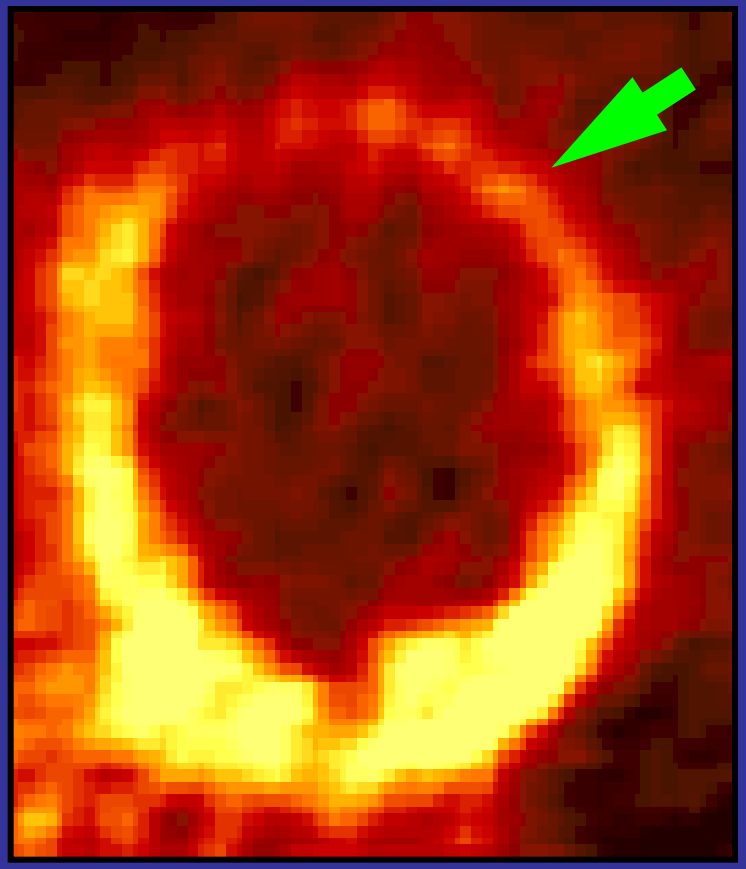


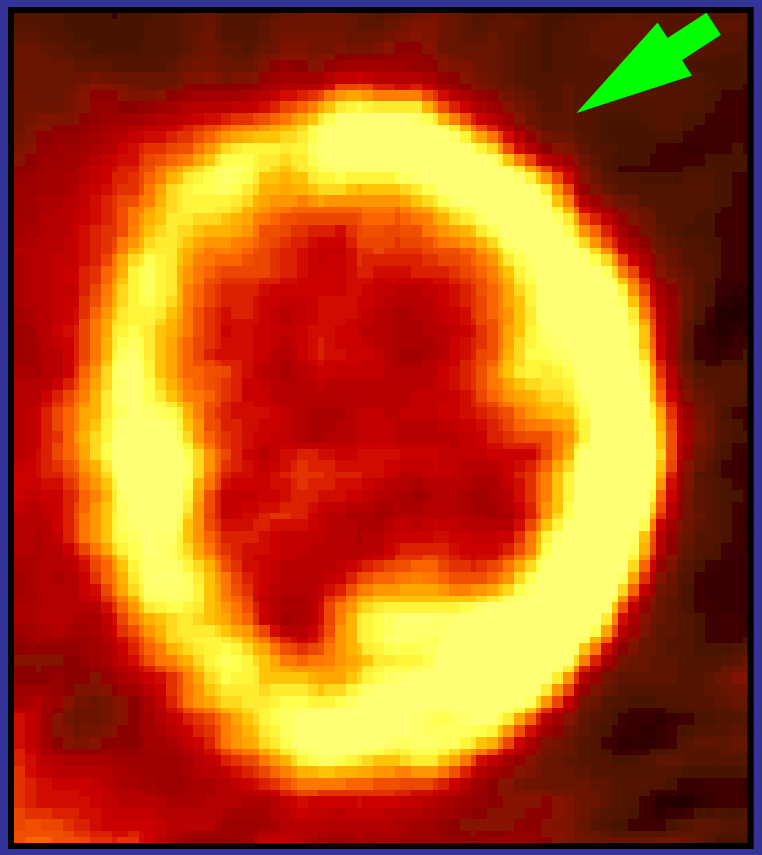
→ Perfusion/metabolism match

→ Perfusion/metabolism mismatch

$^{13}NH_3$ - PET

^{18}FDG - PET





→ **Perfusion/metabolism mismatch**