



# Service de Radiodiagnostic et radiologie interventionnelle

## Radio-embolization : Dosimetry is key...of the problem



Pr Alban DENYS, Nicolas VILLARD  
Chairman of Radiology

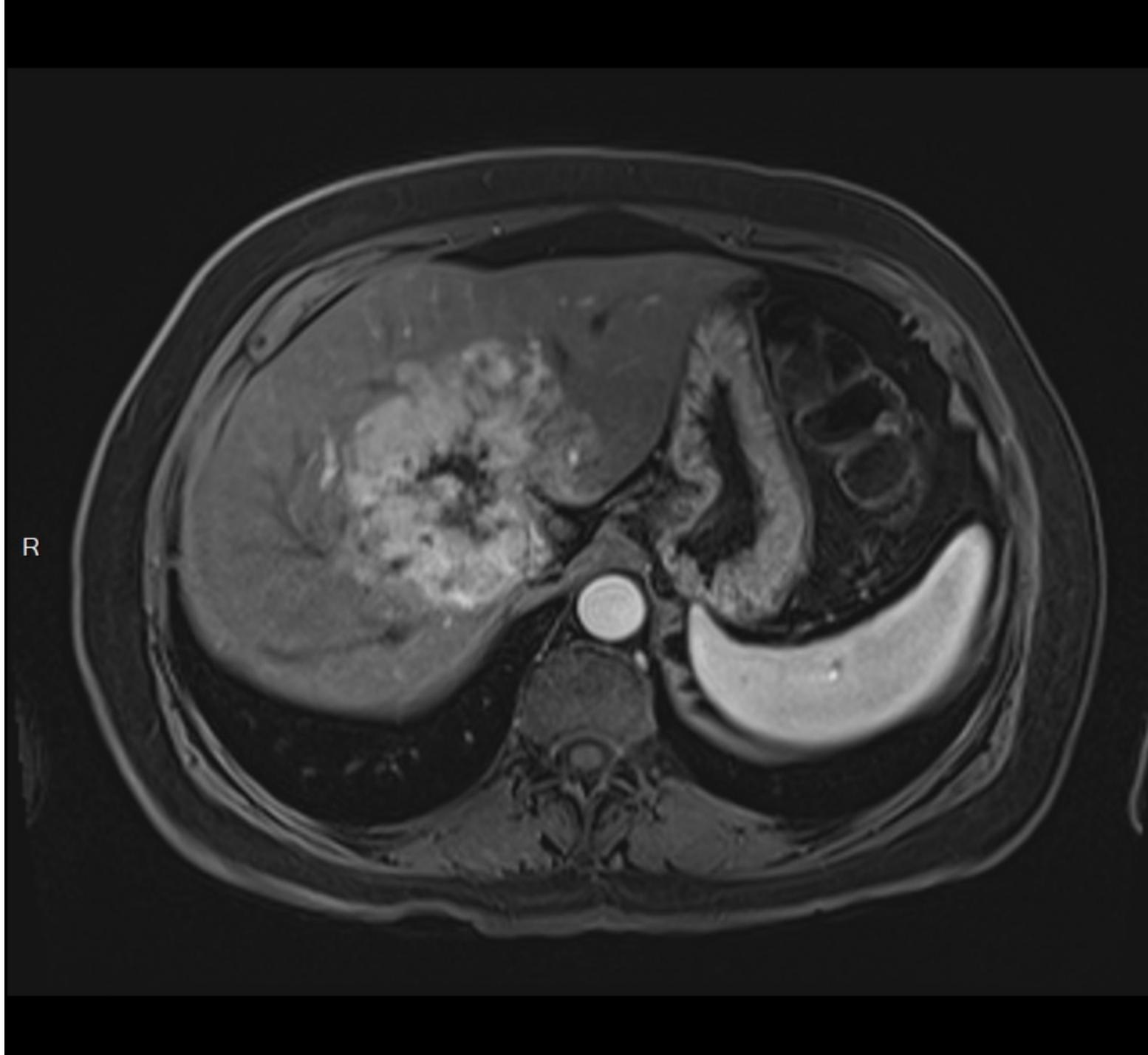


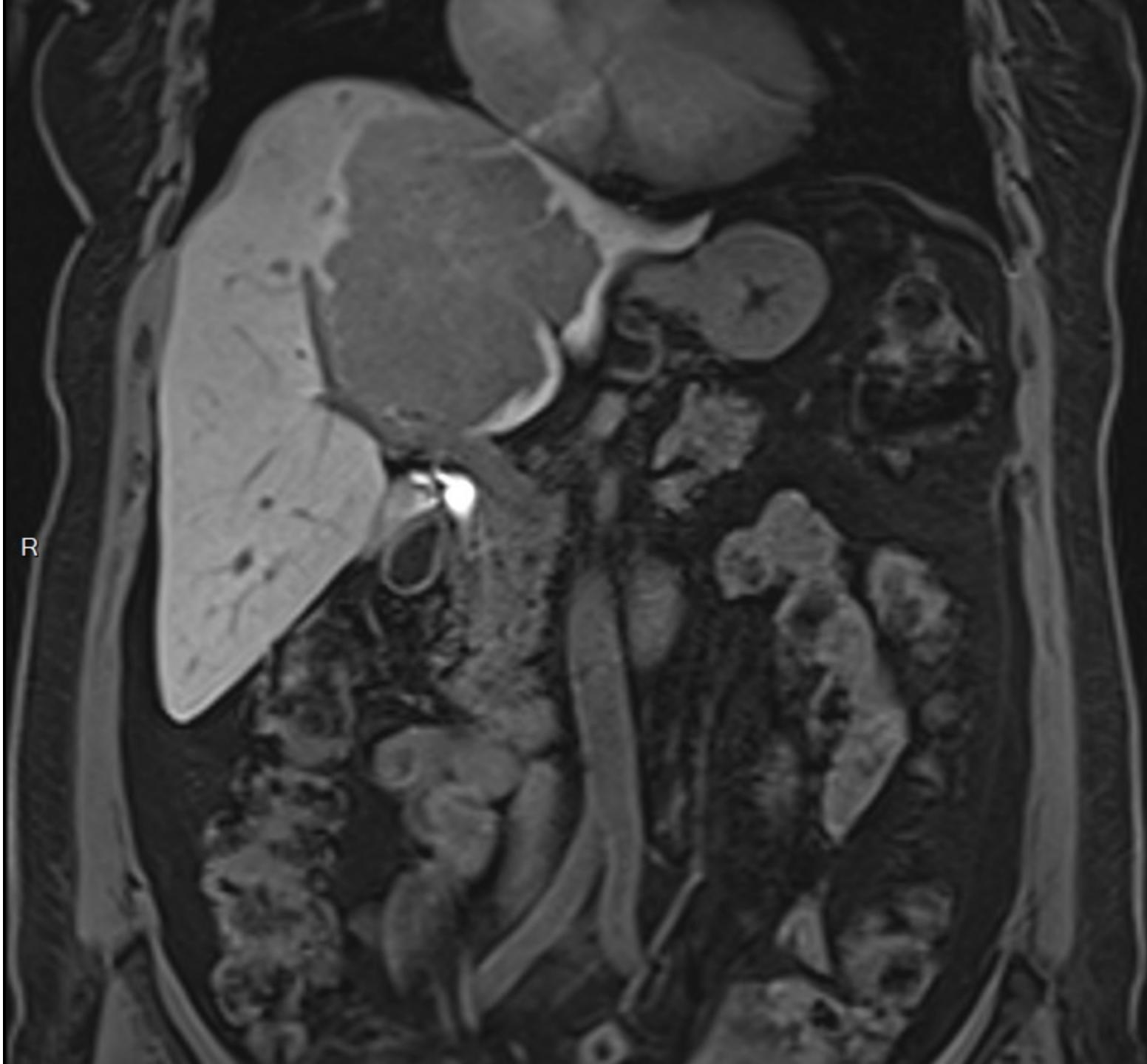
# Mrs M B

Intrahepatic Cholangiocarcinoma cT2  
(microvascular invasion) N0Mx (2 small lung  
mets) IIIb, MSS, HER-2 neg.

Not resectable 3 hepatic veins invaded  
6 cycles of Carboplatin Etoposide :  
progression

SIRT is proposed to control the liver disease  
(sept 2019)







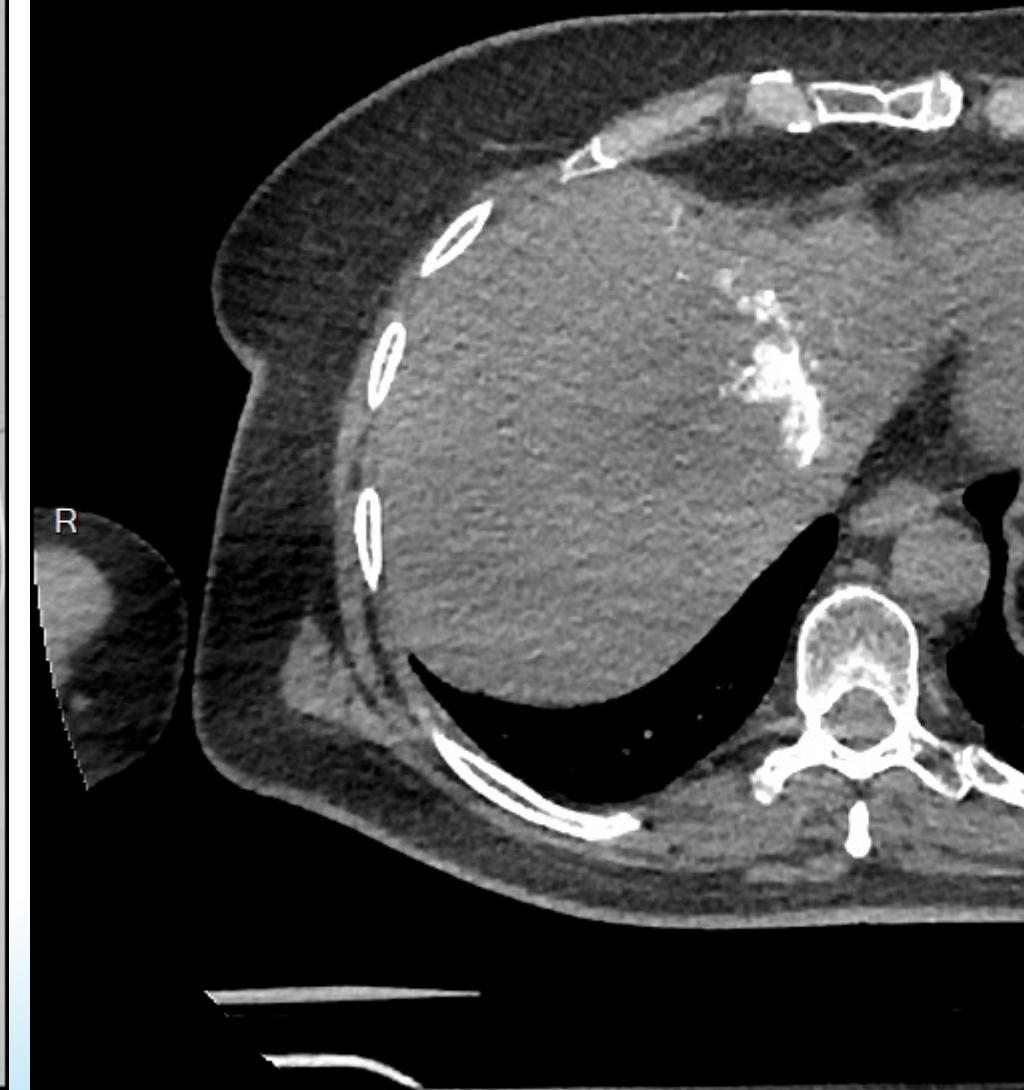


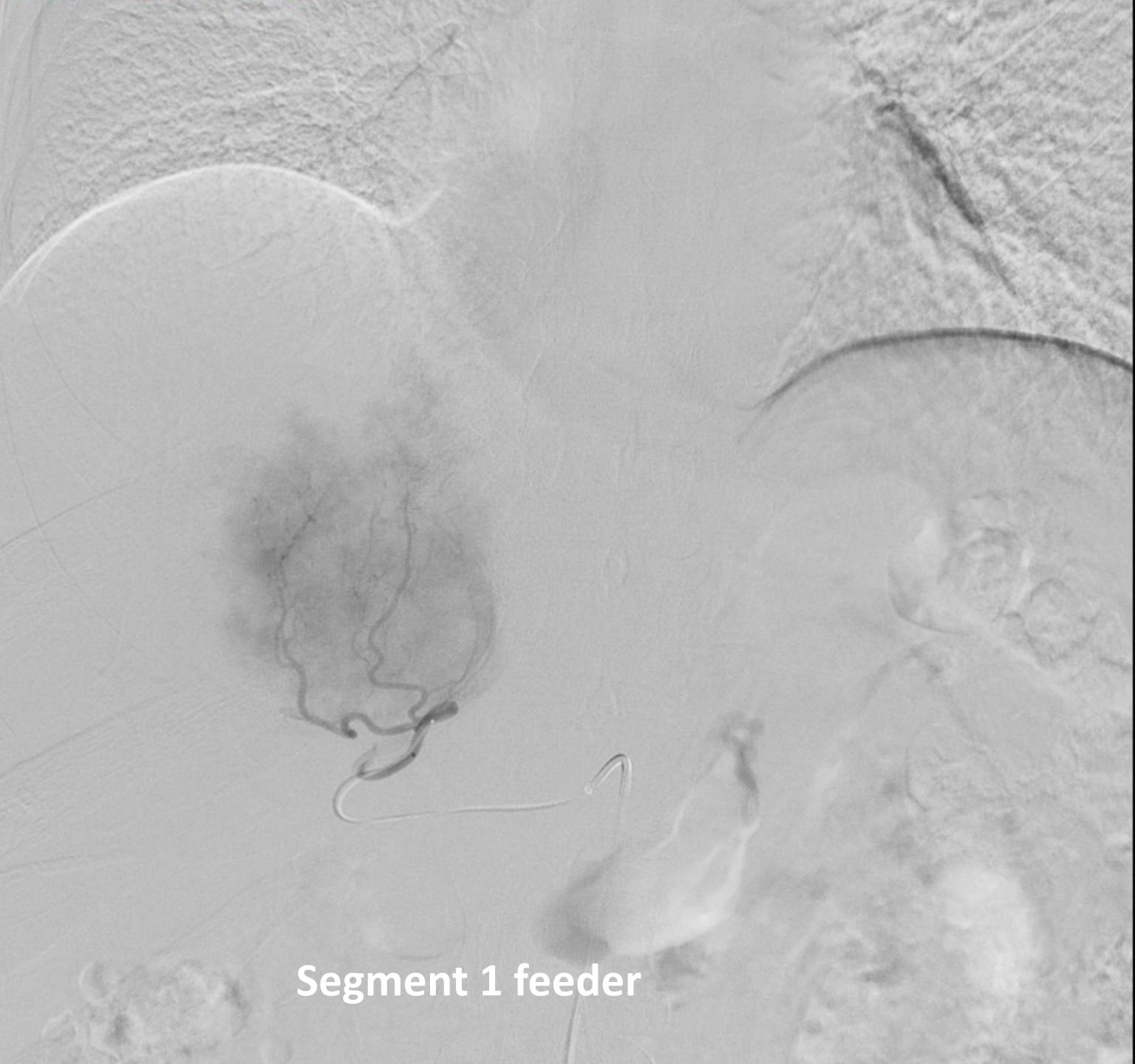
Segt 8 feeder



<2.210000 - 15 @ (1001)>

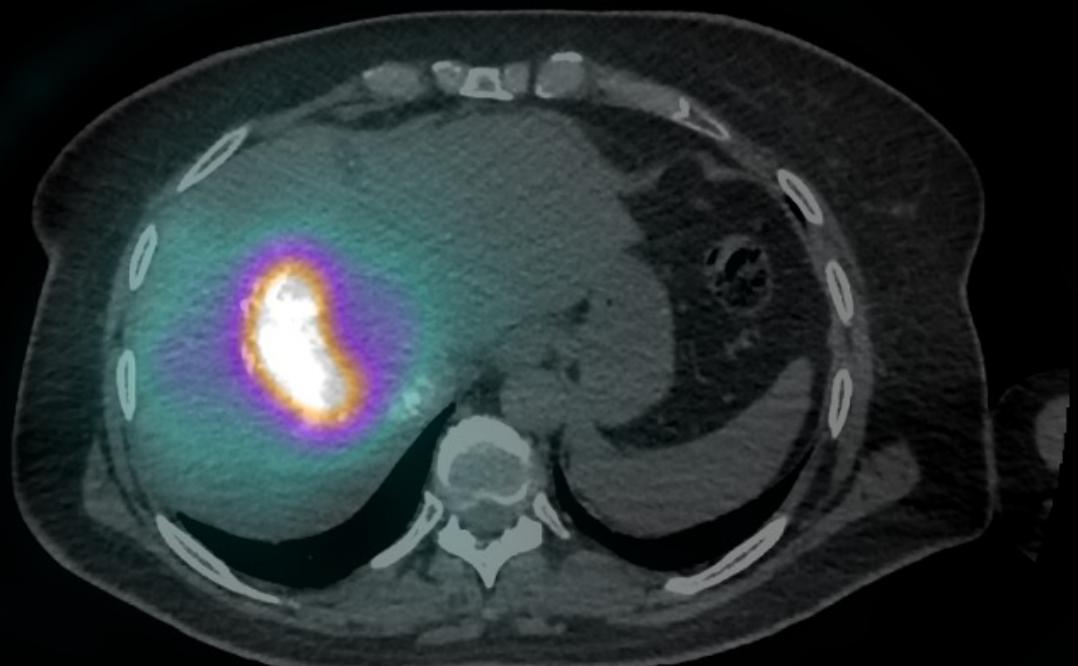
<2 - 152 (1001)>





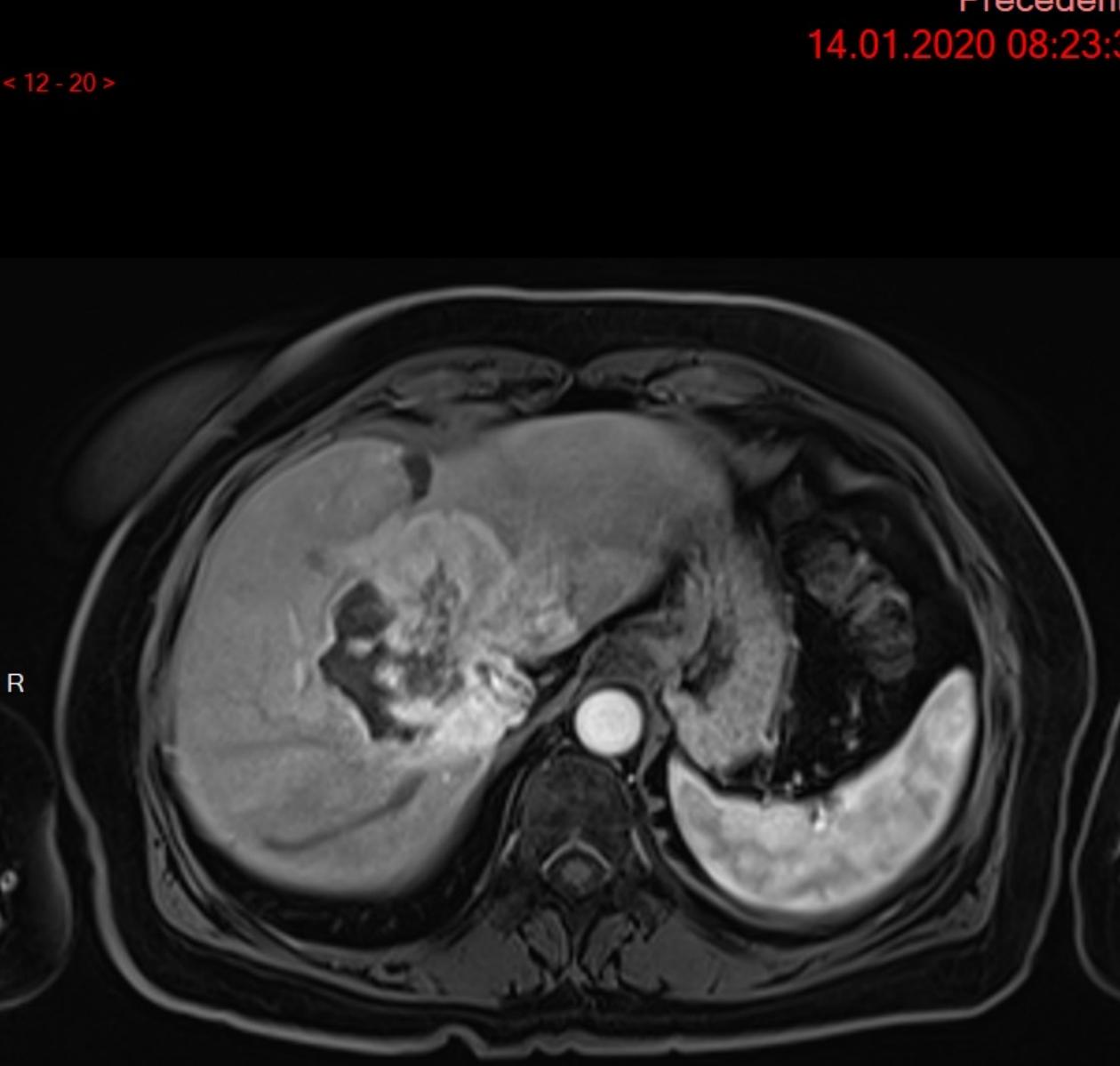
Segment 1 feeder



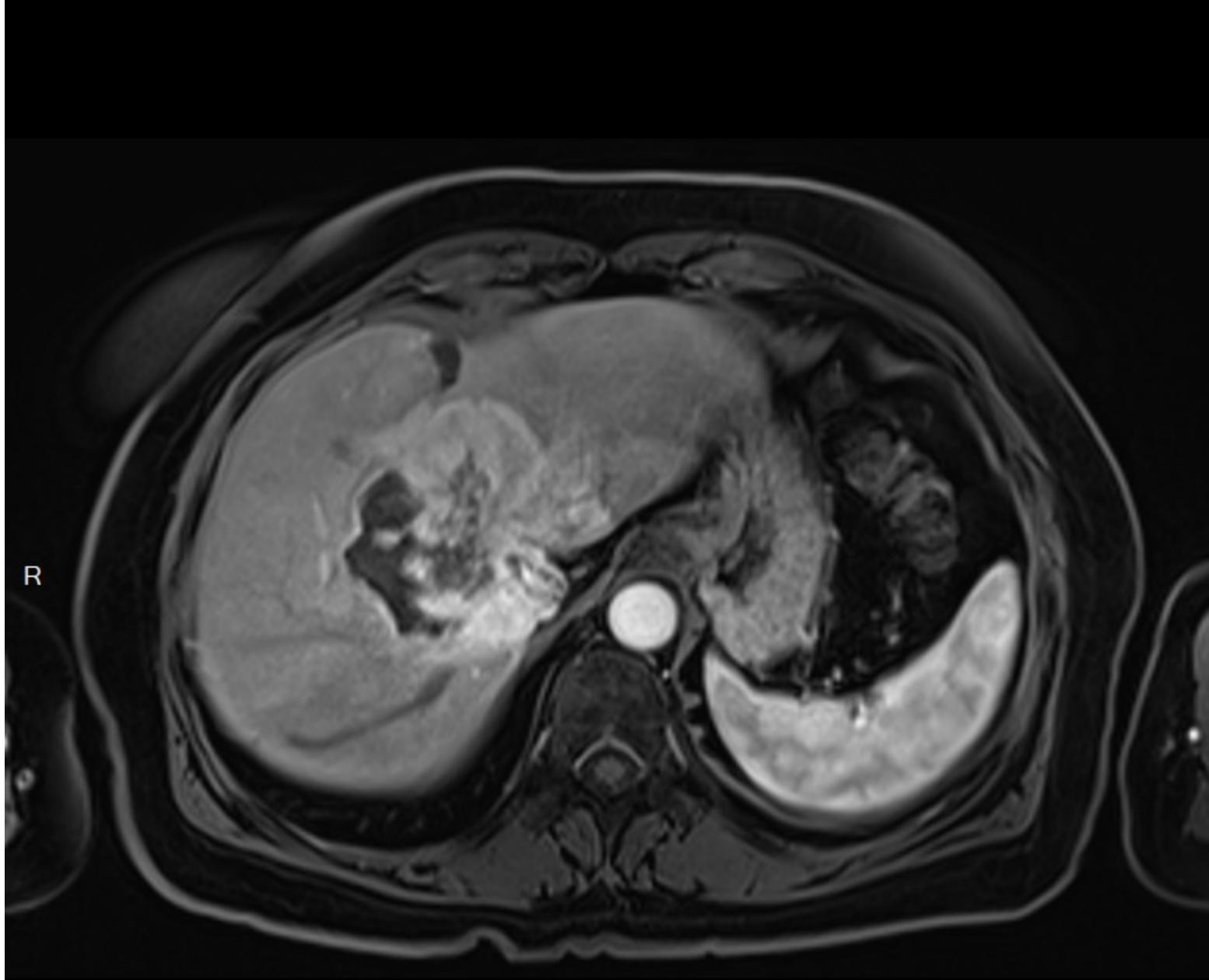


First treatment 3GBq 350gy oct 19

F



2 months later

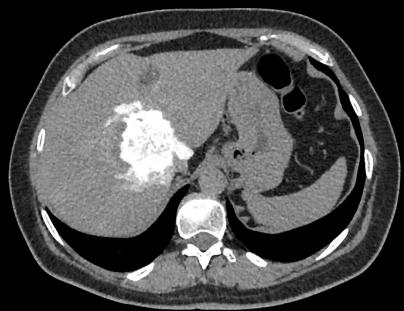


24.01.2020 15:29:58

Précédent 2

Précédent 3  
24.01.2020 13:54:32

< 16 - 173 >



F

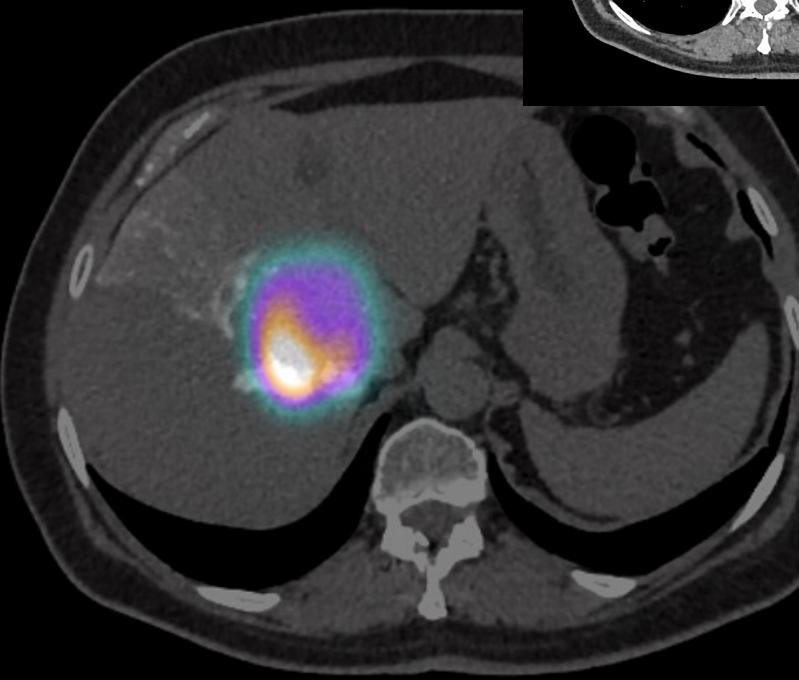
2nd treatment: 2 and 2.5 GBq: 500Gy

< 9116 - 73 >

< 7 - 102 >

24.01.2020

R



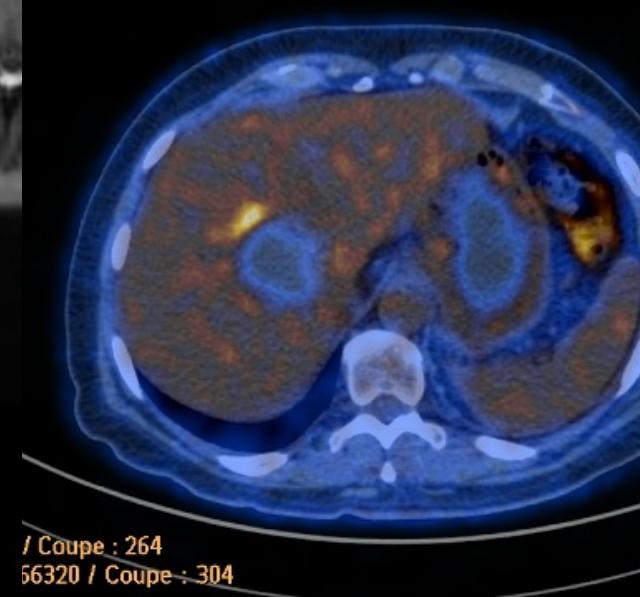
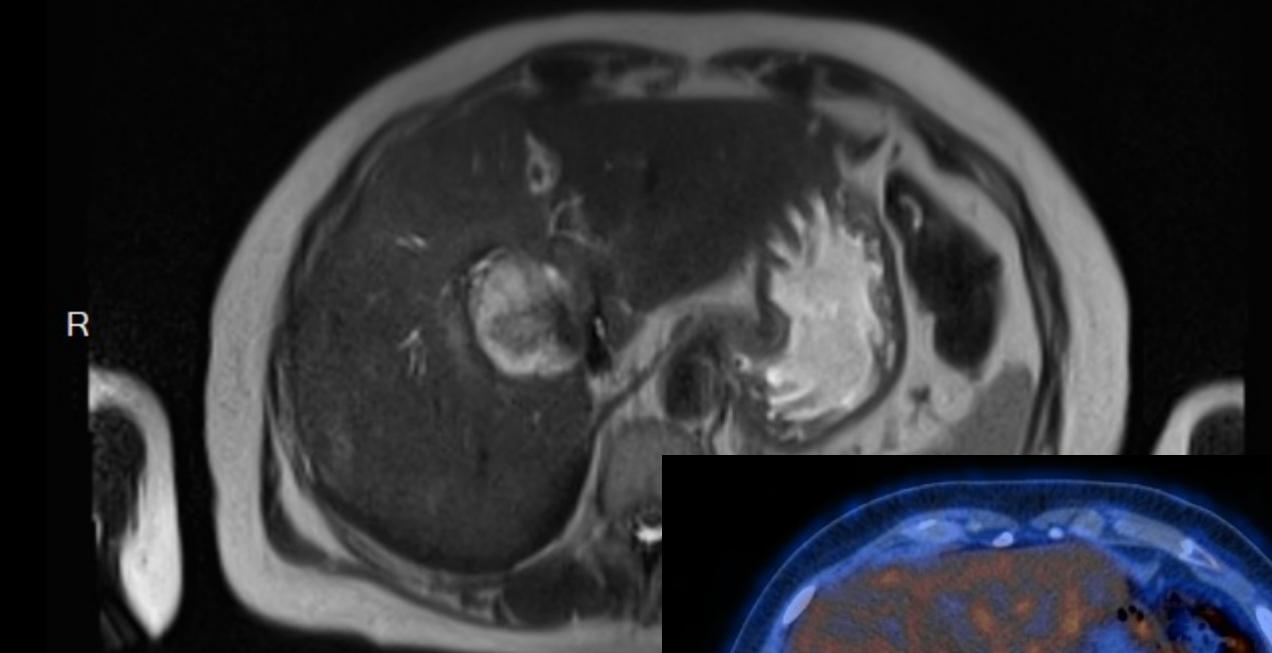
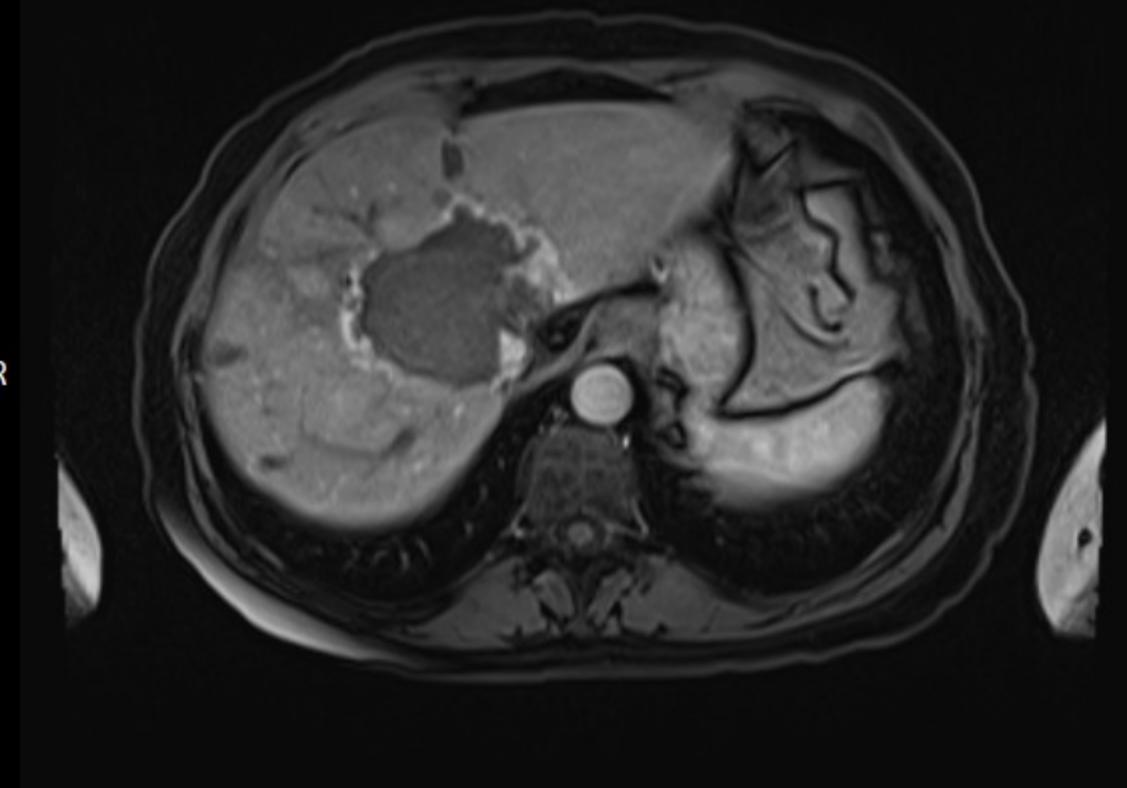
01.07.2020 07:51:46

< 10 - 20 >

07.10.2020 10:10:44

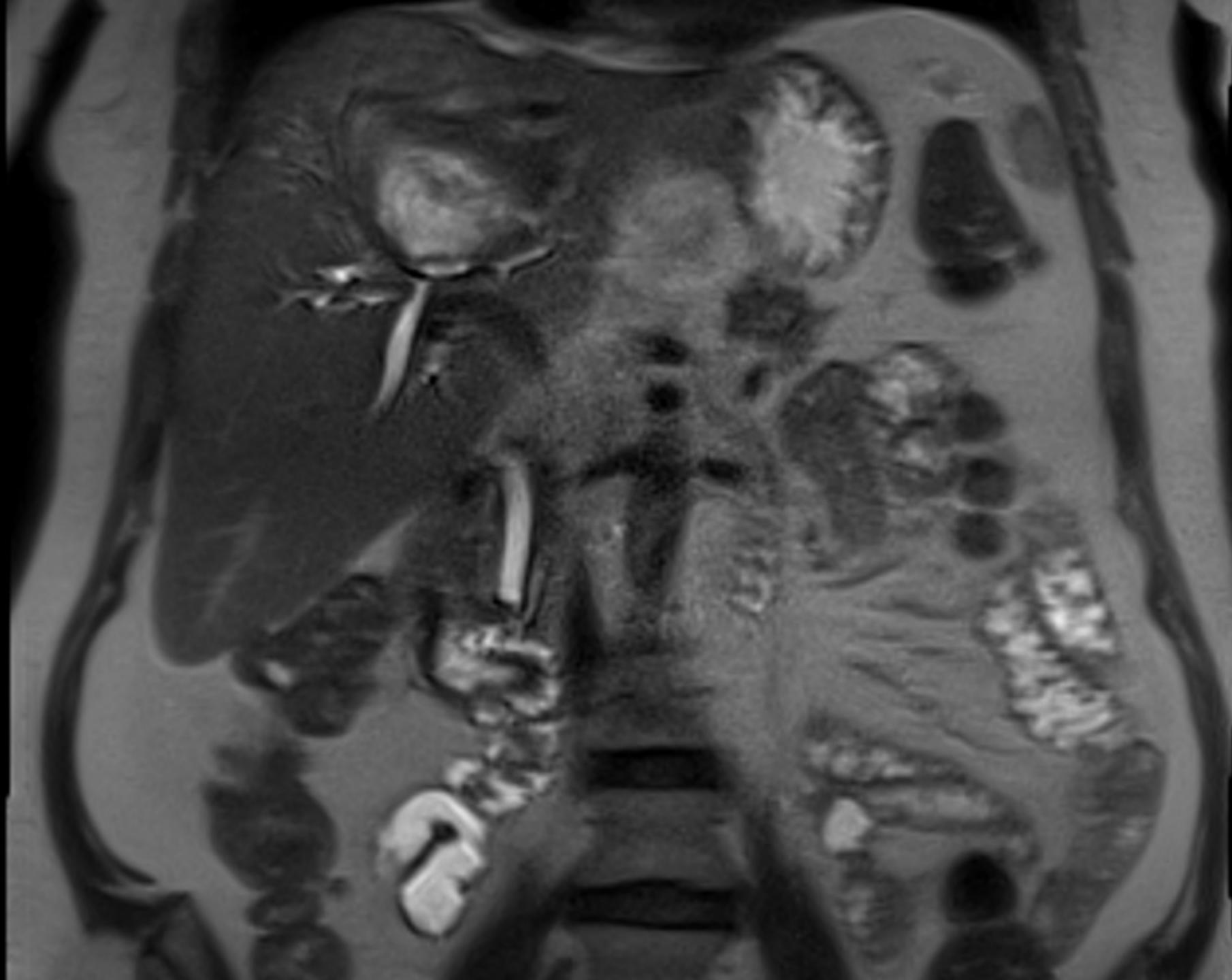
< 24 - 12 >

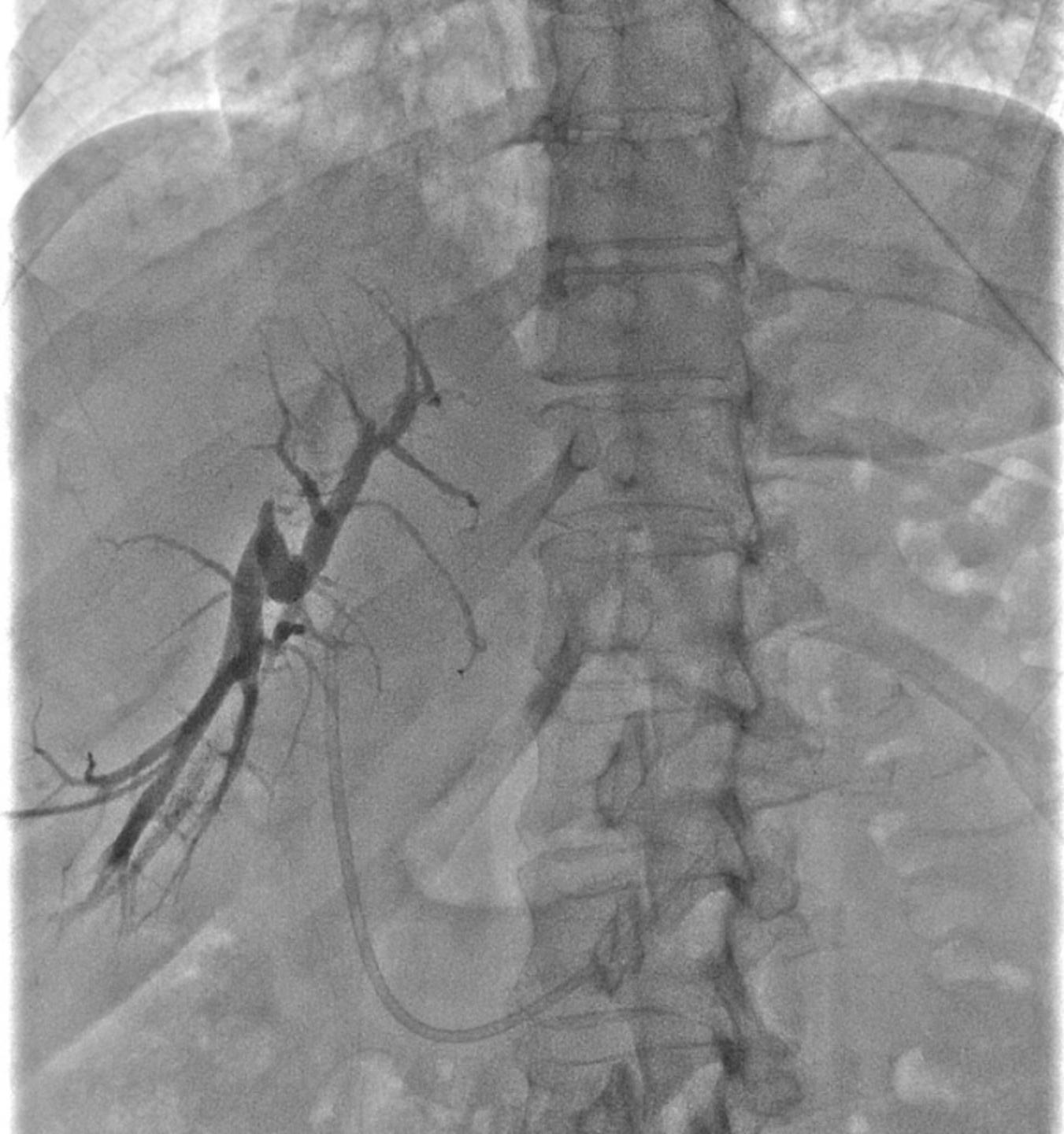
Progressive shrinkage of the tumour





May 2021 . 2 episodes of fever + jaundice resolved by antibiotics















# Biliary complications after SIRT

Asymptomatic biliary abnormalities are quite frequent after TACE and RFA.

They are rarely reported after SIRT

Case Reports > *J Hepatol.* 1994 Jun;20(6):693-7. doi: 10.1016/s0168-8278(05)80136-9.

**Common bile duct stricture as a late complication of upper abdominal radiotherapy**

D Cherqui <sup>1</sup>, L Palazzo, P Piedbois, F Charlotte, C Duvoux, J J Duron, P L Fagniez, D Valla

Affiliations + expand

PMID: 7930466 DOI: [10.1016/s0168-8278\(05\)80136-9](https://doi.org/10.1016/s0168-8278(05)80136-9)

*Semin Interv Radiol.* 2011 Jun; 28(2): 226-229.

doi: [10.1055/s-0031-1280670](https://doi.org/10.1055/s-0031-1280670)

Complications in Interventional Oncology

Guest Editor Robert J. Lewandowski, M.D.

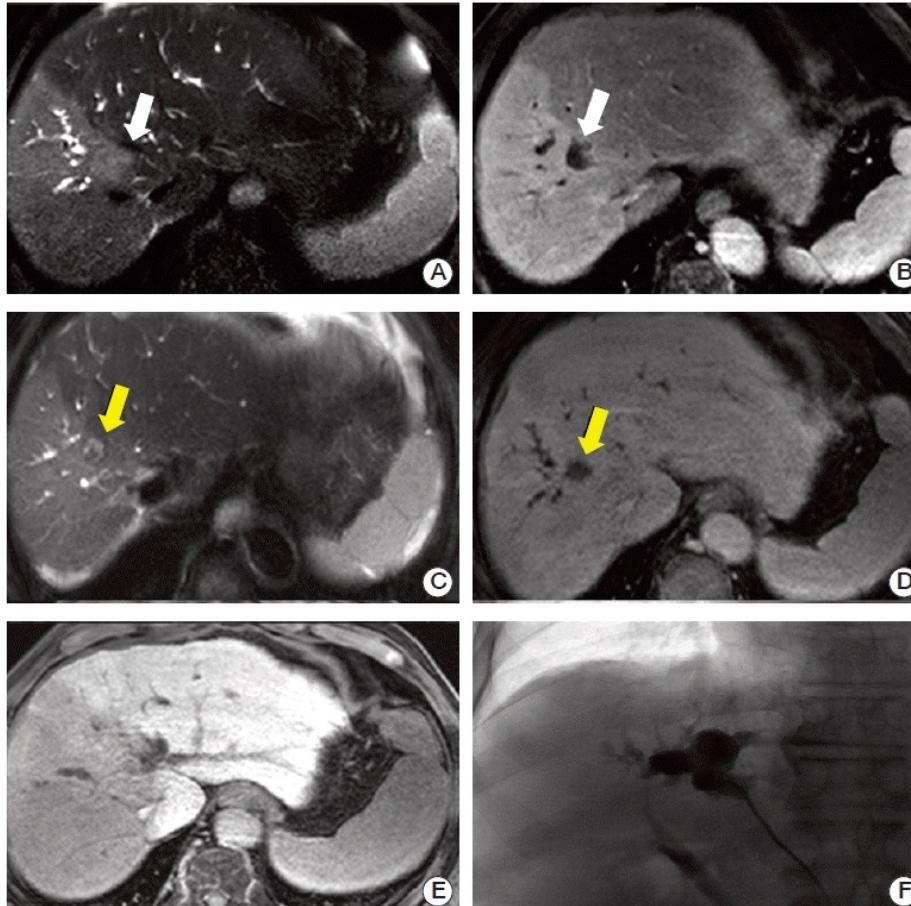
PMCID: PMC3193325

PMID: [22654268](https://pubmed.ncbi.nlm.nih.gov/22654268/)

**Radioembolization for Hepatocellular Carcinoma Complicated by Biliary Stricture**

[Jeet Minocha, M.D.<sup>1</sup>](#) and [Robert J. Lewandowski, M.D.<sup>1</sup>](#)

# 7,4% of perihilar lesions developed biliary complications after SBRT One year delay



Radiologic biliary change after hypofractionated RT

Patient	Location	Biliary change	Obstruction	Interval (mo) <sup>a</sup>	Tumor related	TACE related	Bilirubin elevation	Intervention
A	Perihilar	Dilatation	In-field	2	Possible	No	Yes	ERBD re-insertion
B	Perihilar	Dilatation	In-field	7	Possible	No	Yes	PTBD
C	Non-perihilar	Dilatation	In-field	32	No	Possible	No	-
D	Perihilar	Dilatation	In-field	13	Definite	No	Yes	PTBD
E	Non-perihilar	Dilatation	In-field	10	Definite	No	No	-
F	Perihilar	Dilatation	In-field	21	Definite	No	No	-
G	Perihilar	Dilatation	In-field	24	Definite	No	No	-
H	Perihilar	Dilatation	Out-field	52	Definite	Possible	No	-
I	Non-perihilar	Dilatation	Out-field	25	Definite	No	No	-
J	Perihilar	Biloma	Out-field	20	No	Definite	No	-
K	Perihilar	Biloma	In-field	6	No	Definite	No	-
L	Non-perihilar	Biloma	Out-field	38	Possible	Definite	No	-

RT, radiation therapy; TACE, trans-arterial chemo-embolization; ERBD, endoscopic retrograde biliary drainage; PTBD, percutaneous trans-hepatic biliary drainage.

<sup>a</sup>Time interval of biliary change development after completion of hypofractionated RT.