

# Service de Radiodiagnostic et radiologie interventionnelle

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



Pr Alban DENYS, Nicolas VILLARD  
Chairman of Radiology





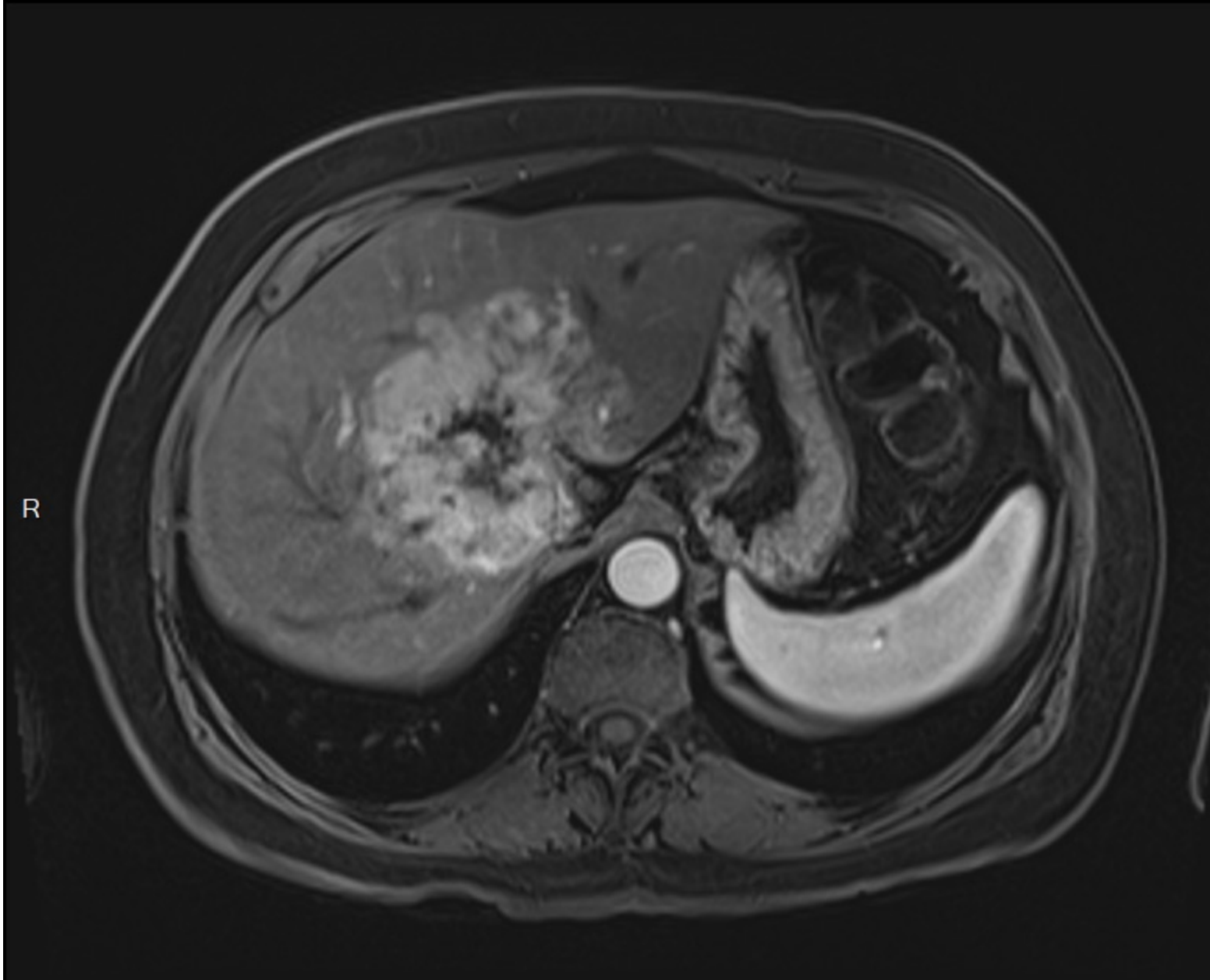
# Mrs M B

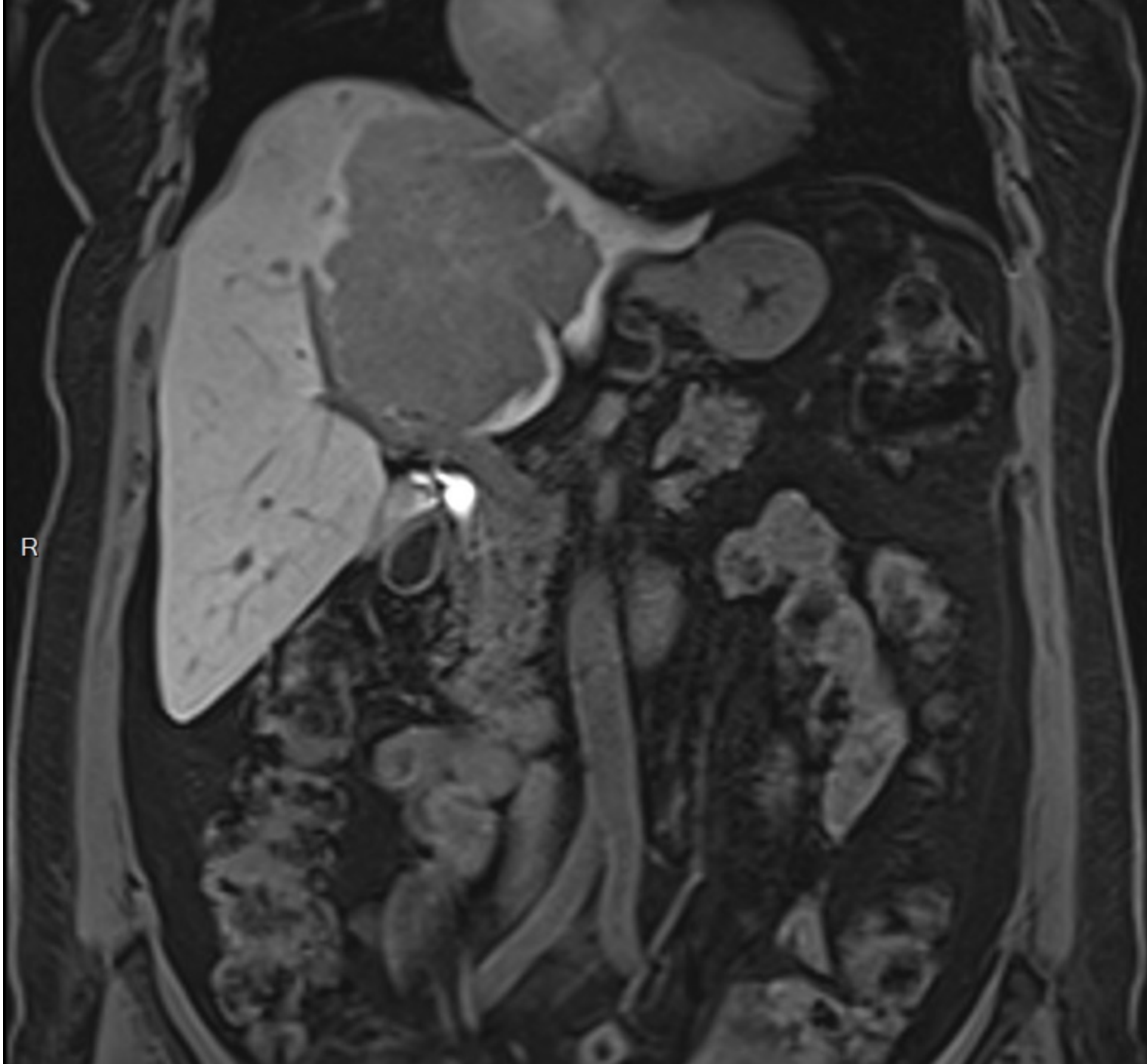
Intrahepatic Cholangiocarcinoma cT2  
(microvascular invasion) N0Mx (2 small lung  
mets) IIIb, MSS, HER-2 neg.

Not resectable 3 hepatic veins invaded

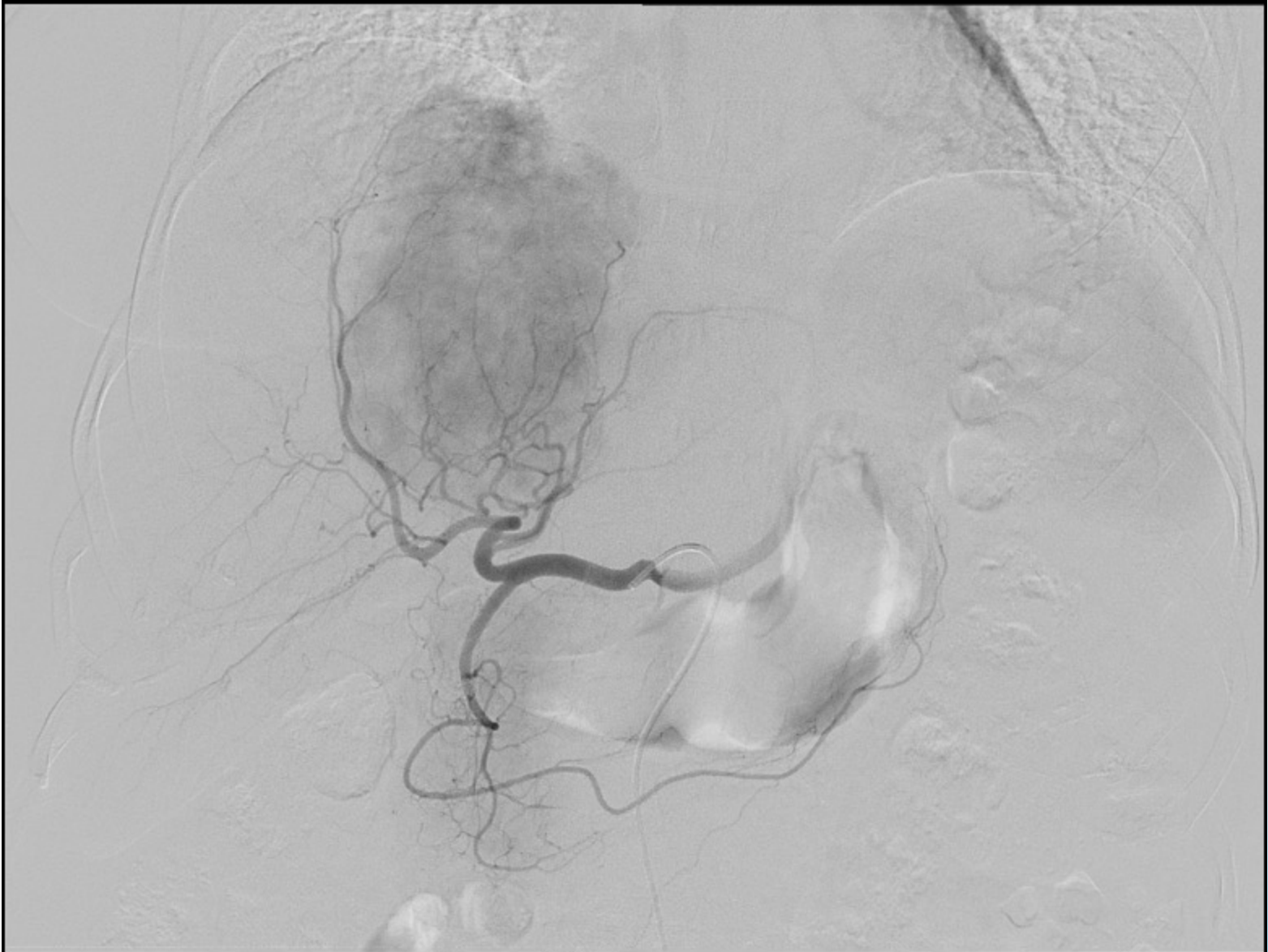
6 cycles of Carboplatin Etoposide :  
progression

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



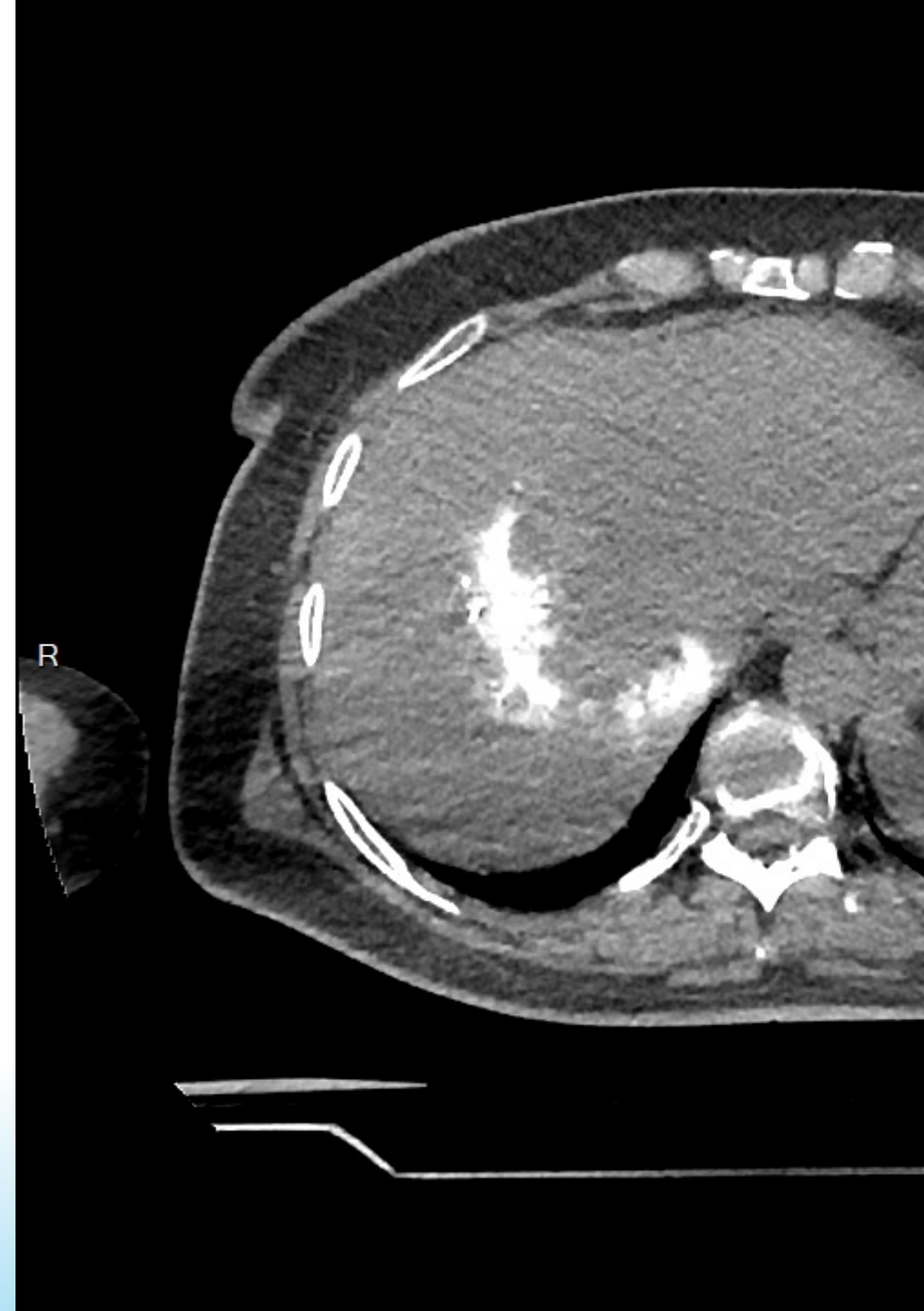






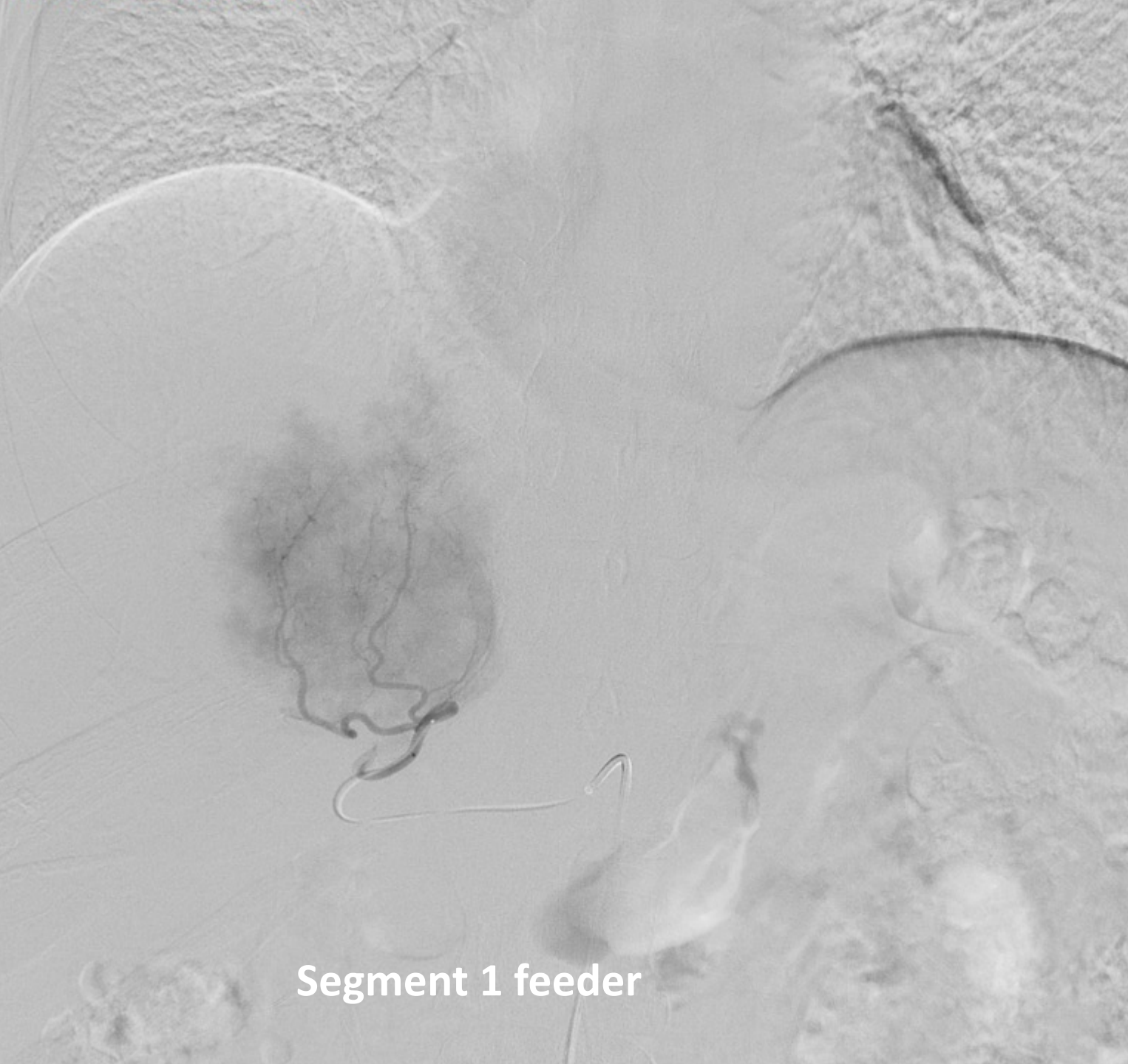


Segt 8 feeder







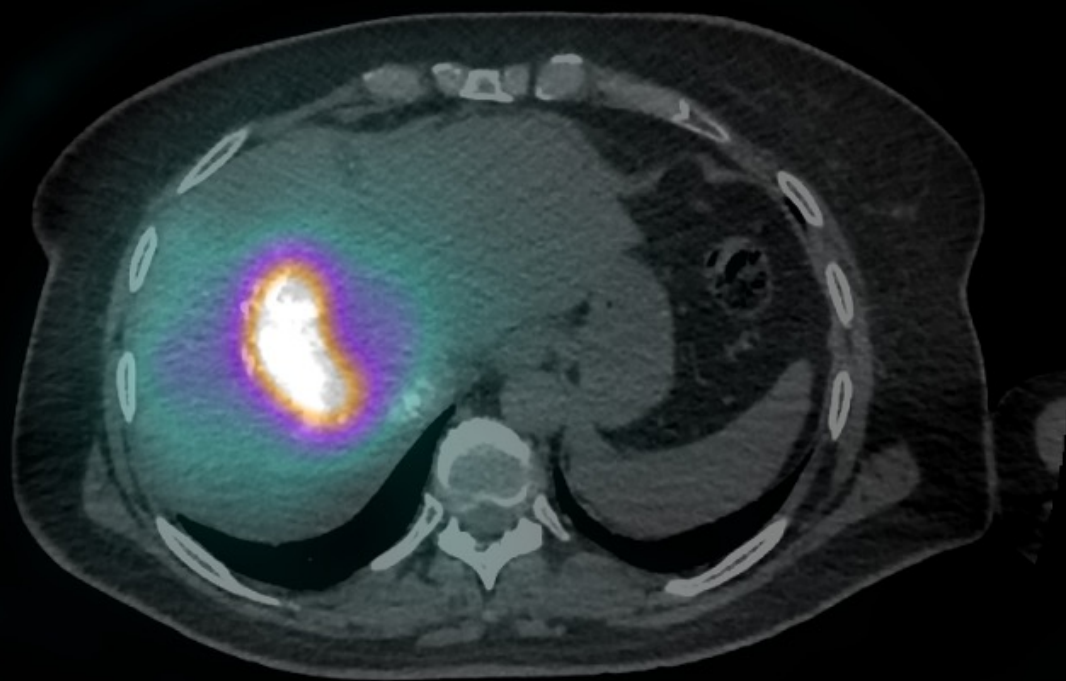


Segment 1 feeder

R

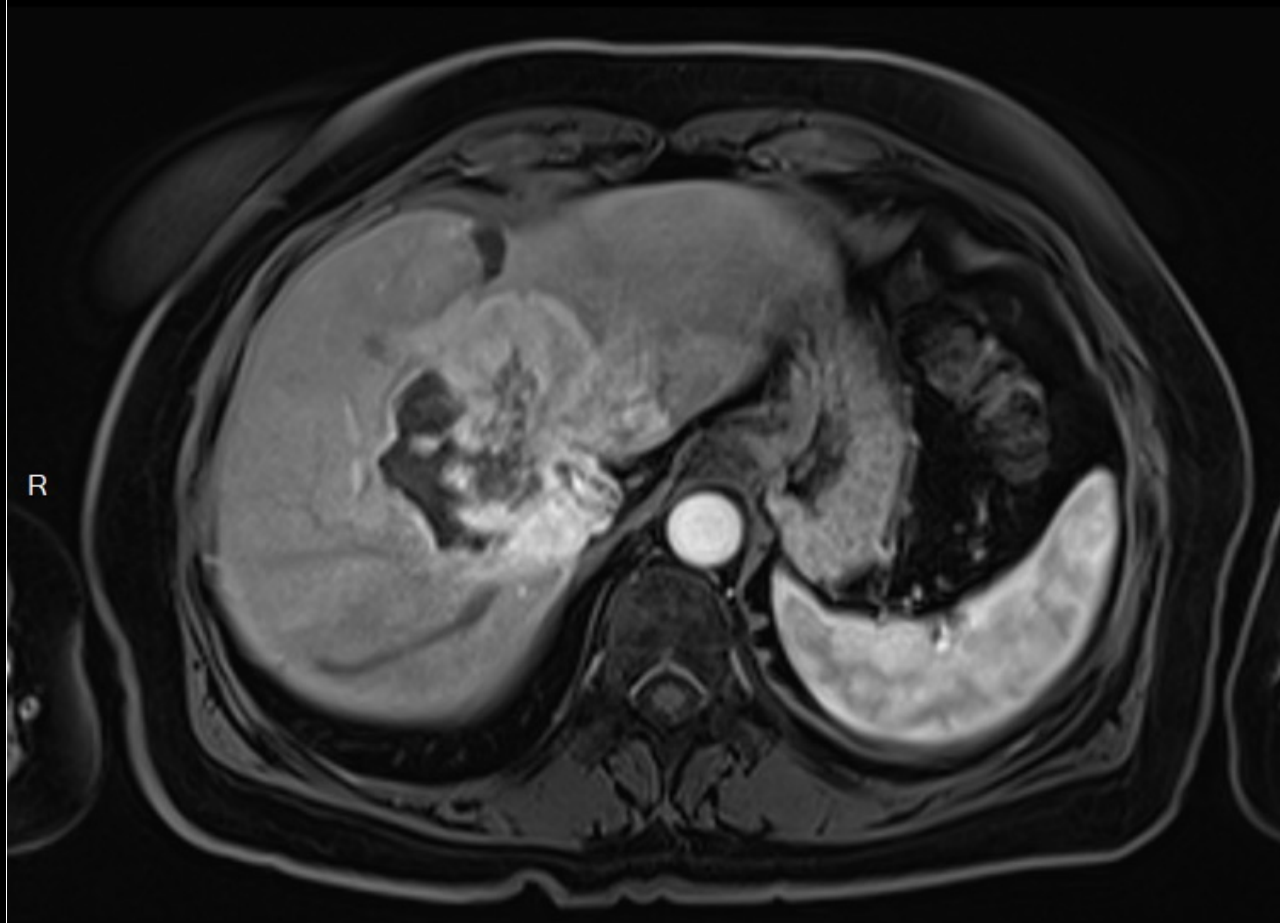




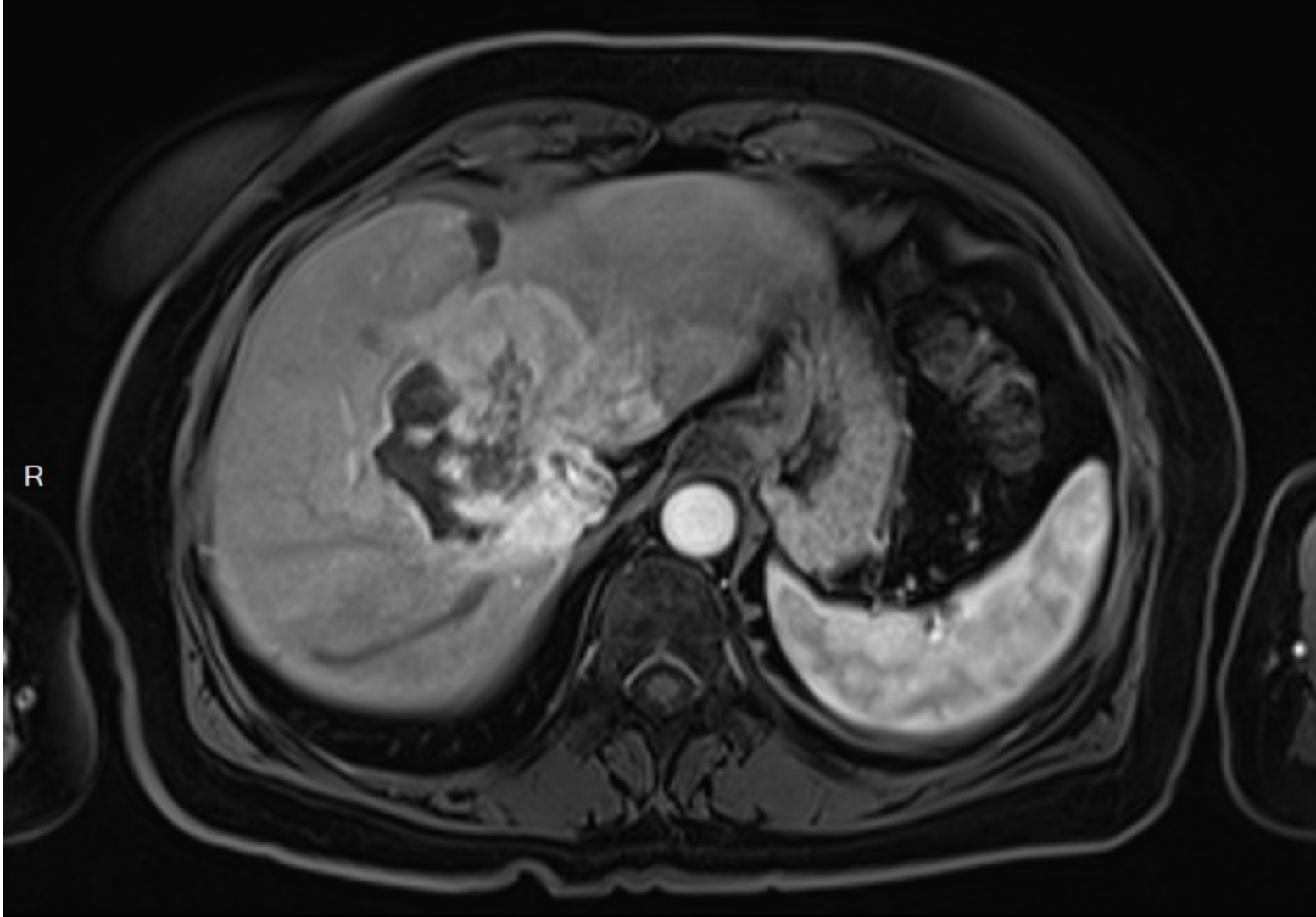


First treatment 3GBq 350gy oct 19

F



2 months later





24.01.2020 15:29:58

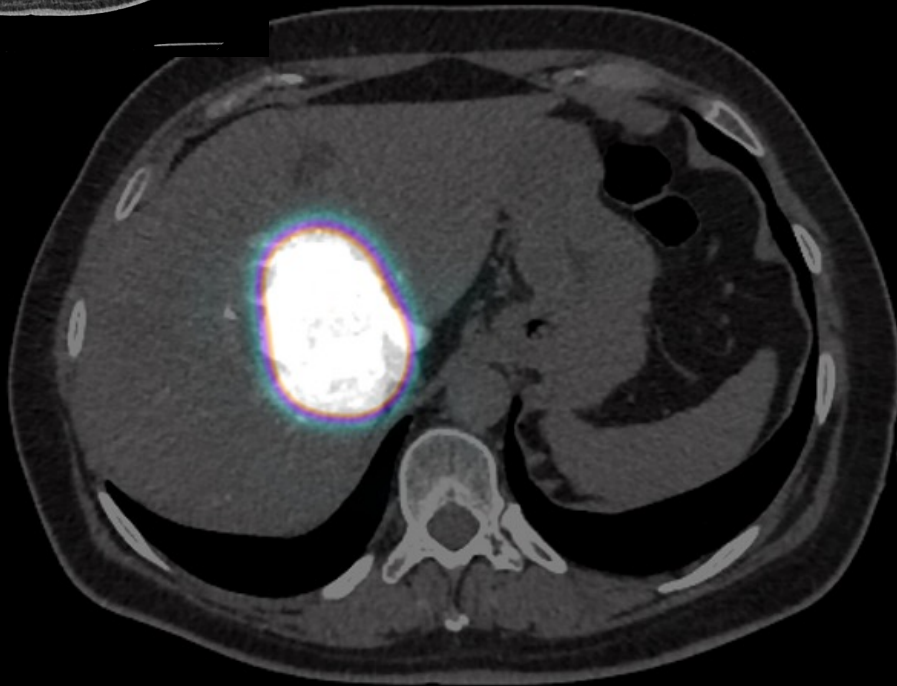
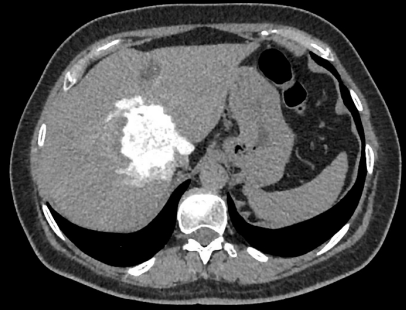
Précédent 2

Précédent 3  
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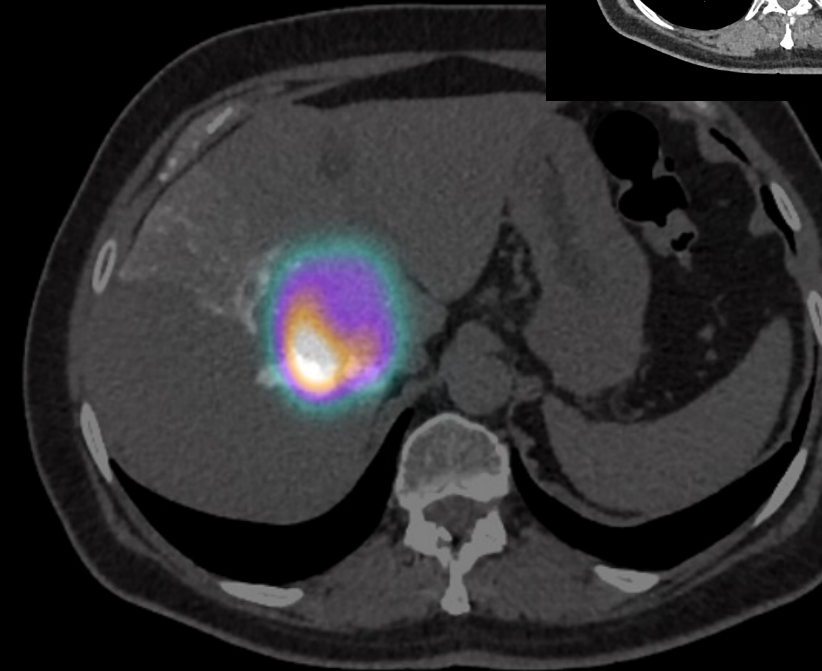
< 9116 - 73 >

< 7 - 102 >

2nd treatment: 2 and 2.5 GBq: 500Gy



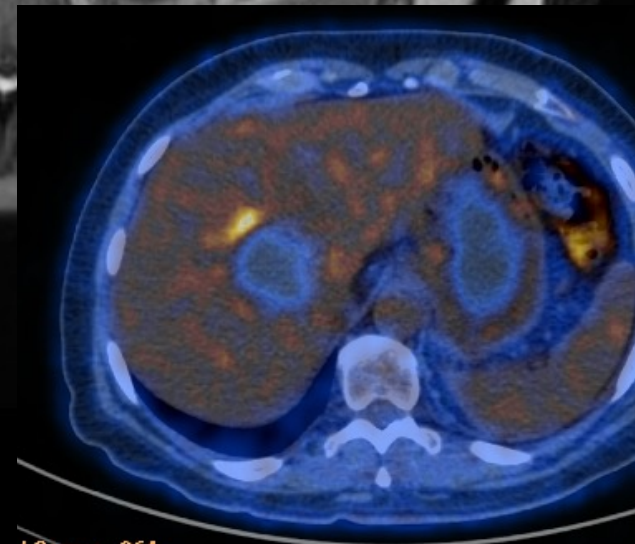
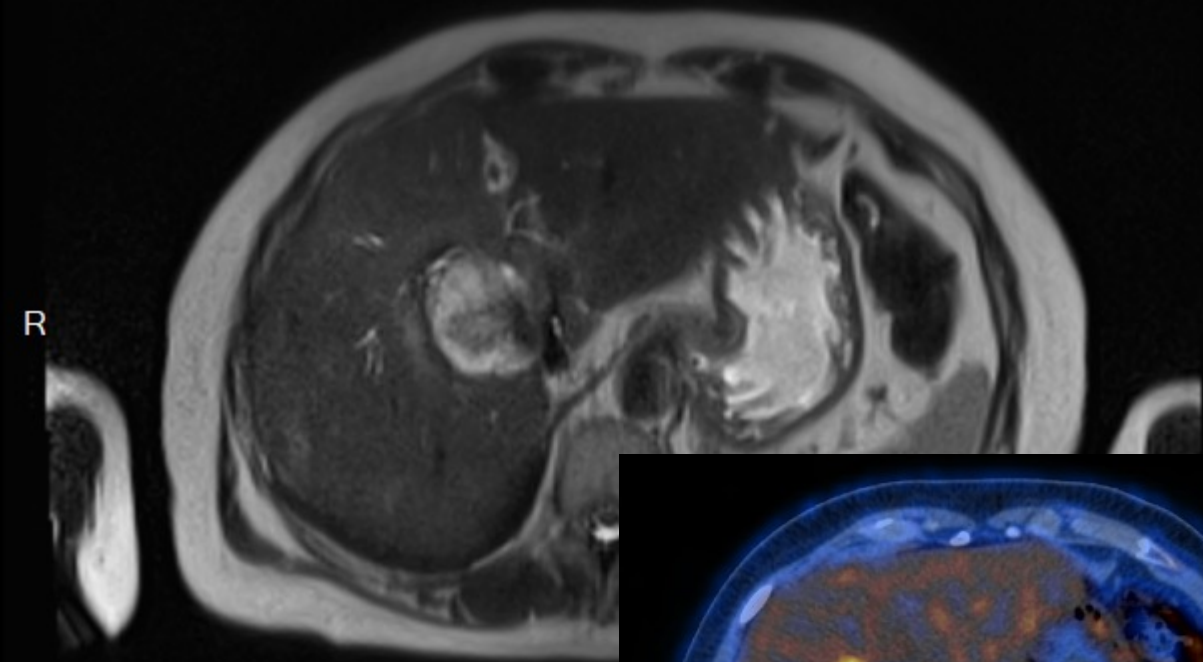
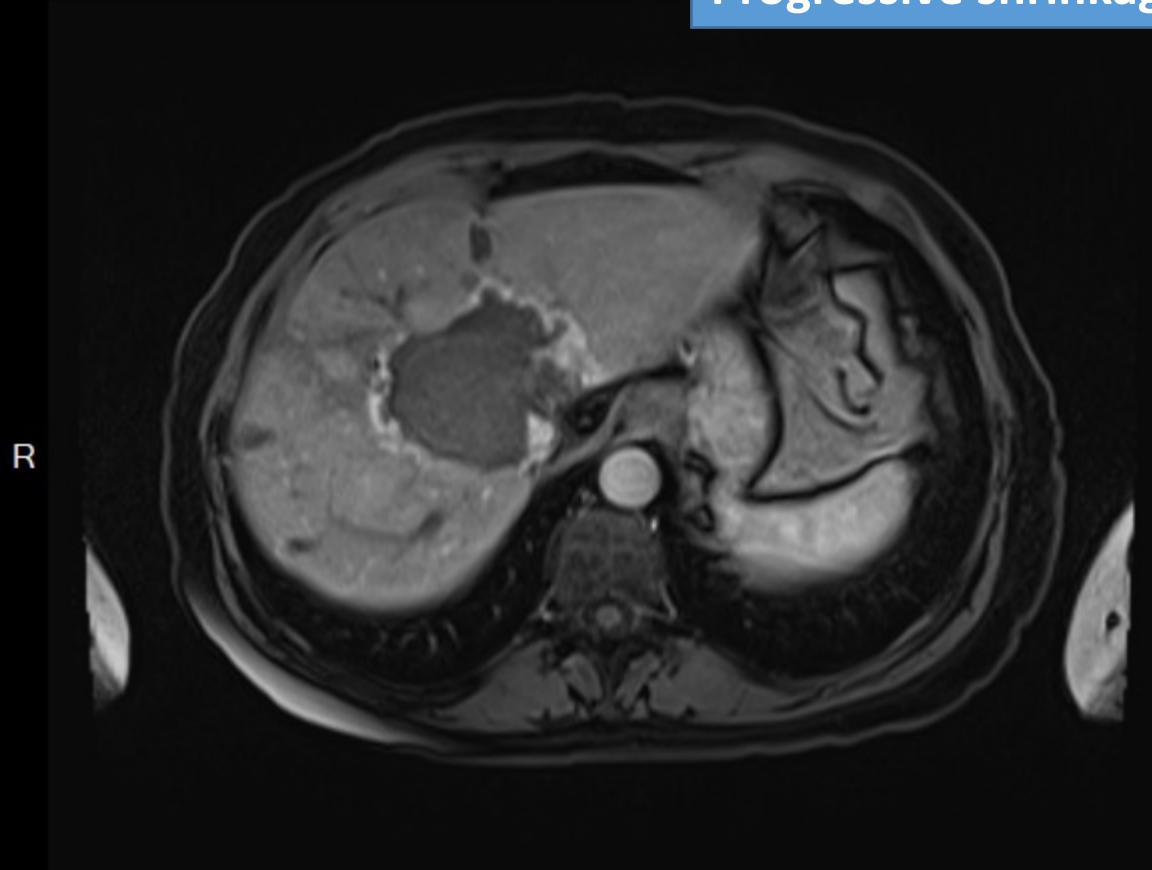
F



&lt; 10 - 20 &gt;

&lt; 24 - 12 &gt;

# Progressive shrinkage of the tumour

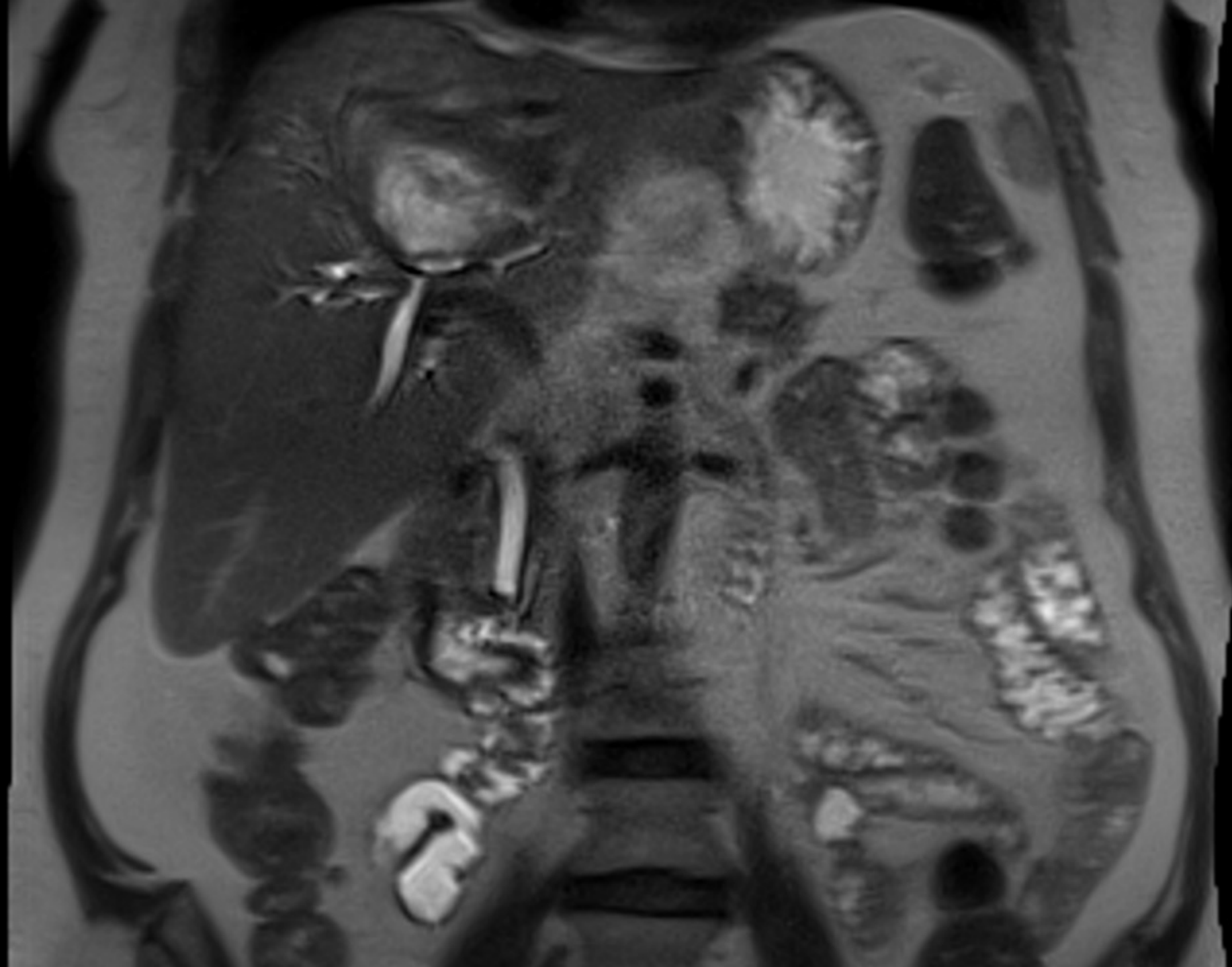


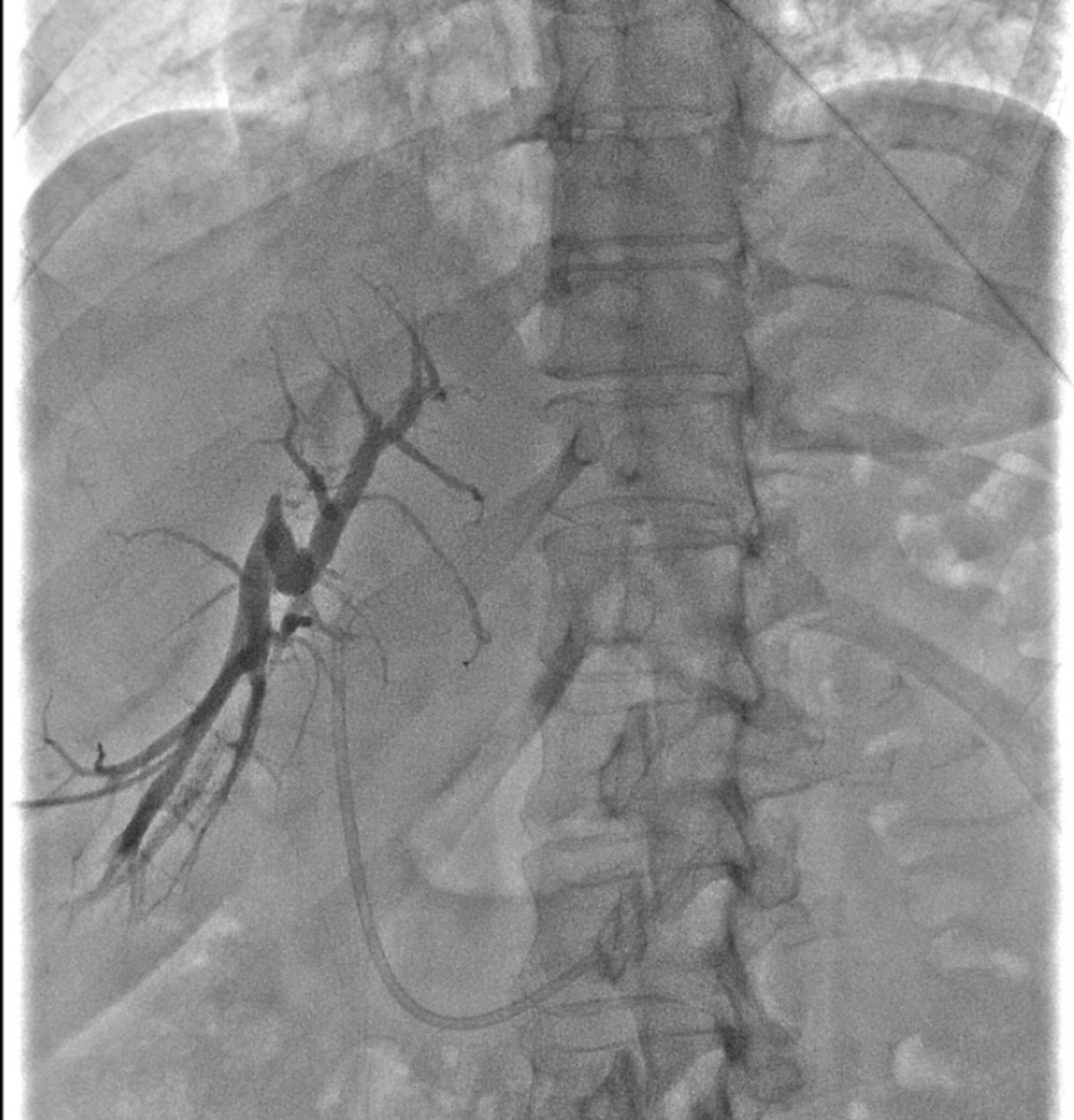
/ Coupe : 264  
56320 / Coupe : 304





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](#)

[Semin Intervent Radiol.](#) 2011 Jun; 28(2): 226–229.

doi: [10.1055/s-0031-1280670](#)

Complications in Interventional Oncology

Guest Editor Robert J. Lewandowski, M.D.

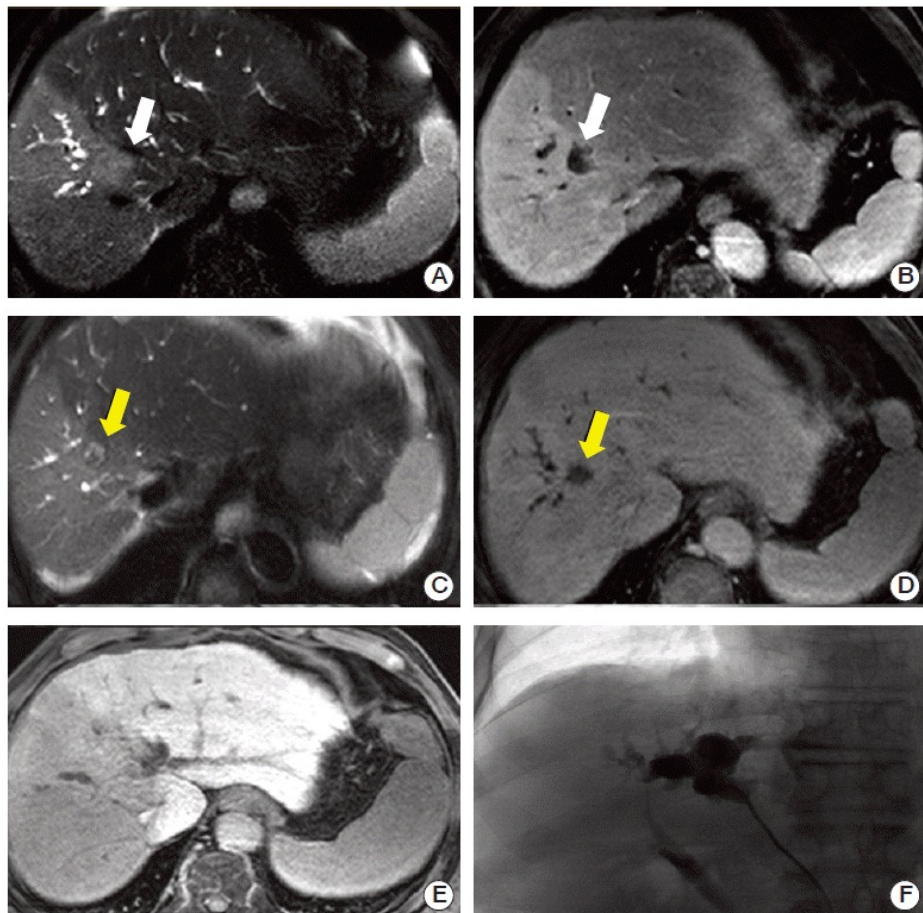
PMCID: PMC3193325

PMID: [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.