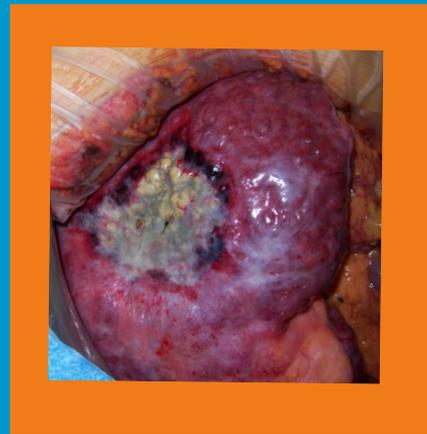
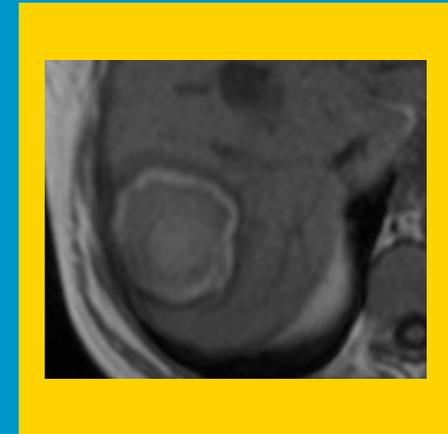




Imagerie post ablation hépatique



SFR-RA
Société Française de Radiologie Rhône-Alpes

26 Avril 2016

Agnès RODE
Hôpital Croix Rouse
LYON

HISTOLOGIE

Zone de thermoablation:

- Nécrose de coagulation
- Inflammation
(activation des myofibroblastes,
prolifération macrophagique)



Radiofrequency Ablation:

Inflammatory Changes in the Periablative Zone Can Induce Global Organ Effects, including Liver Regeneration¹

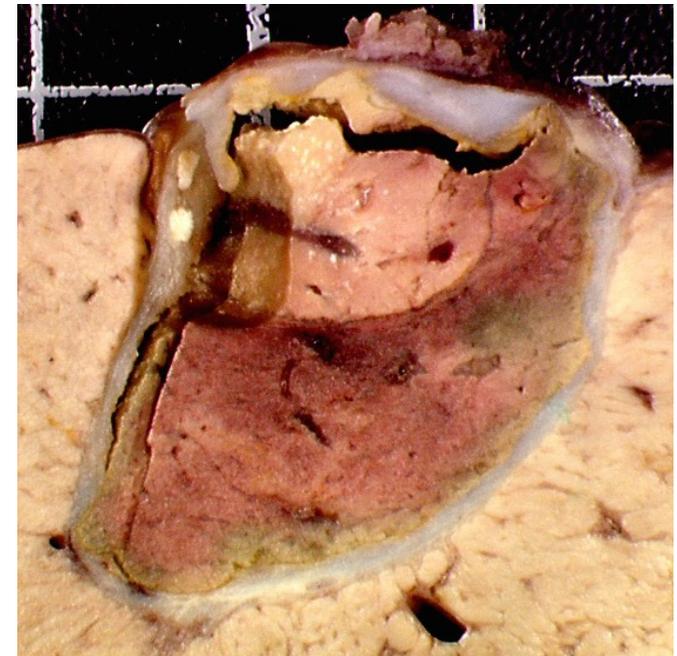
Rozenblum Radiol 2015

HISTOLOGIE

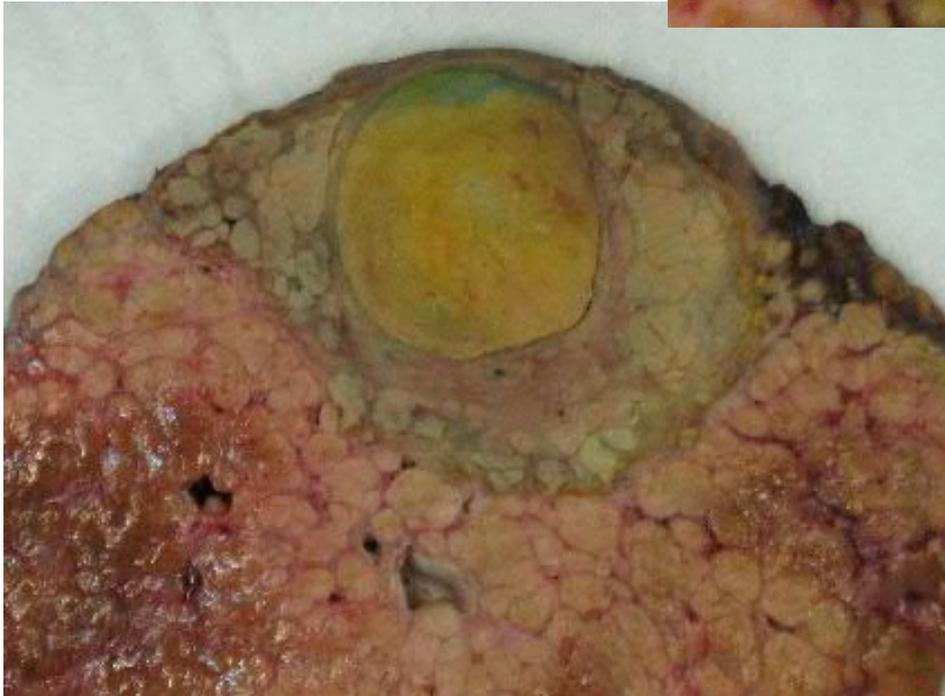
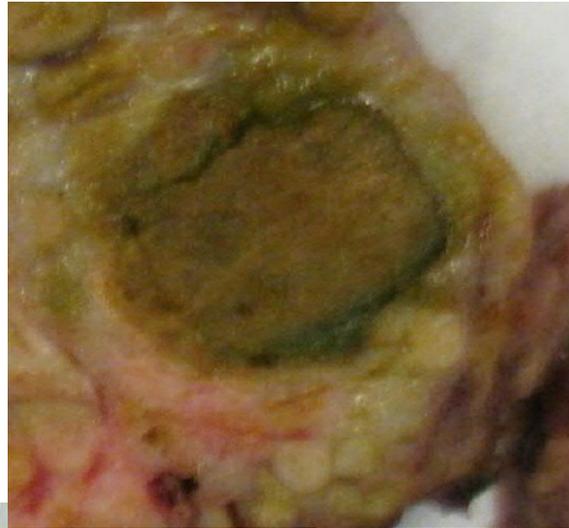
Zone de thermoablation:

- Nécrose de coagulation
- Inflammation
(activation des myofibroblastes,
prolifération macrophagique)

- Fibrose



HISTOLOGIE

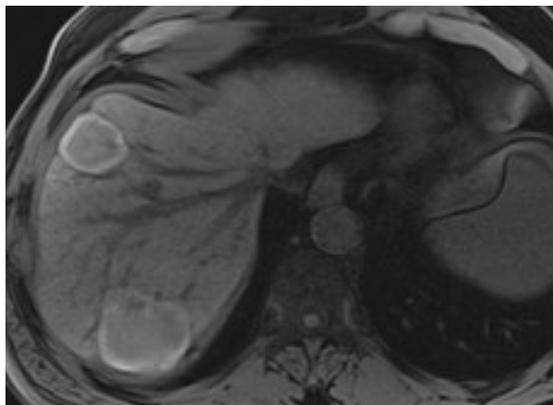




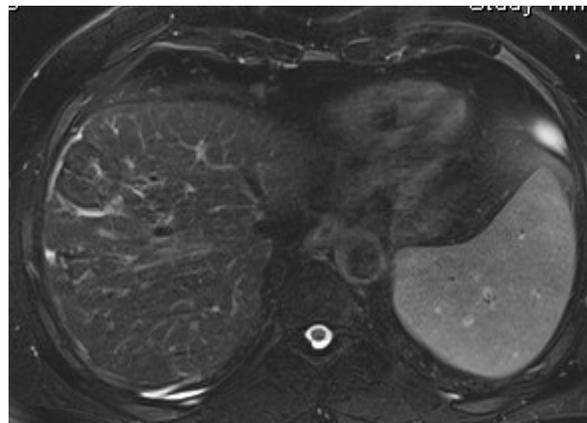
SURVEILLANCE:

Quels examens?

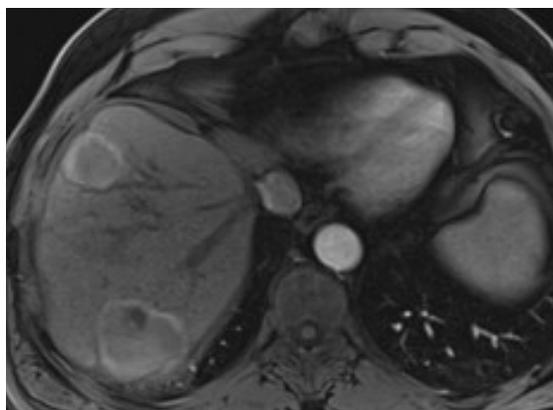
- **ECHOGRAPHIE:** préthérapeutique, thérapeutique, traitement itératif, mais pas pour le suivi systématique
- **TDM:** oui, mais...
- **IRM:** +++



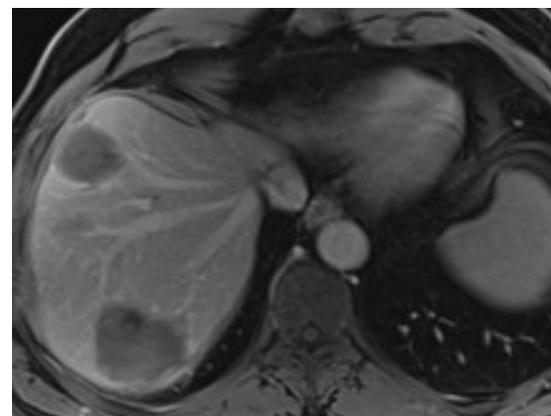
T1 sans injection



T2

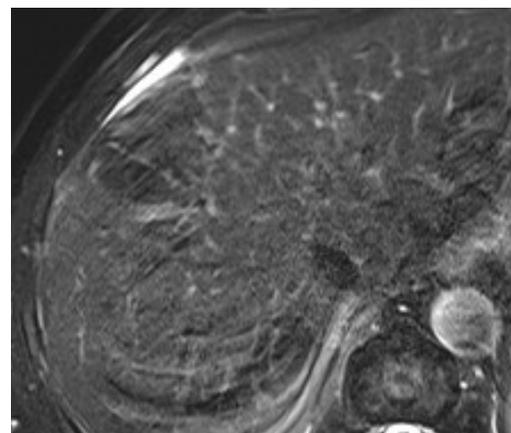
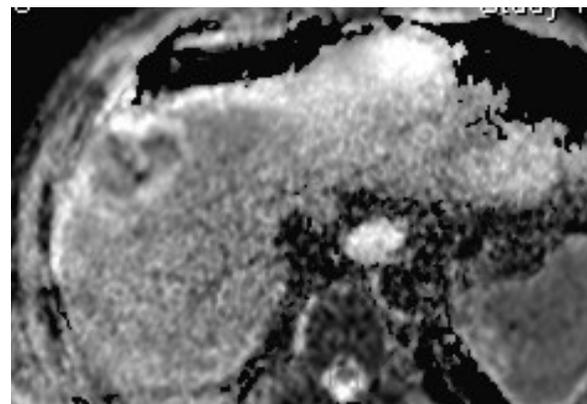
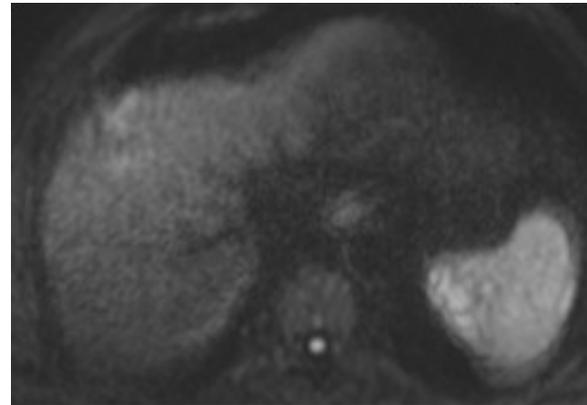
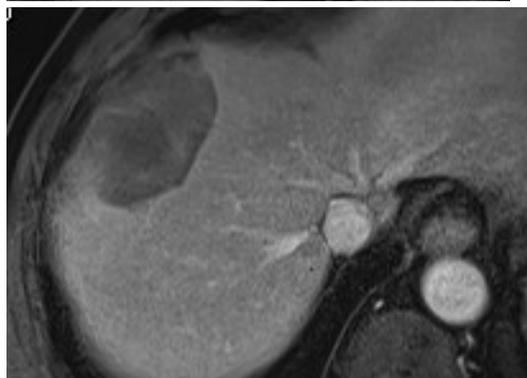
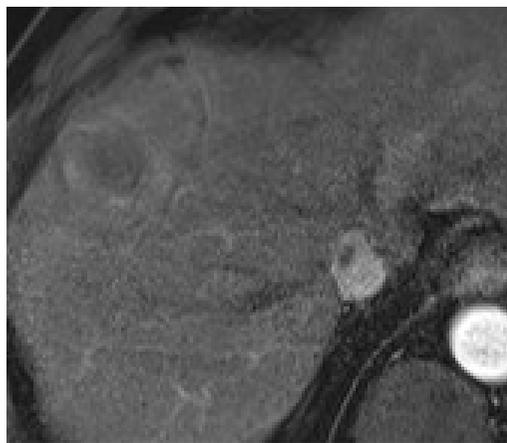
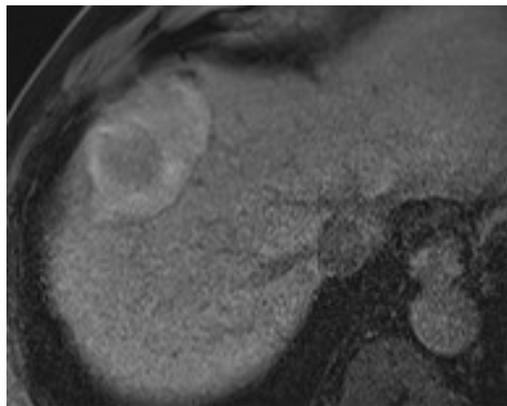


artériel



portal

Et les séquences de diffusion ?

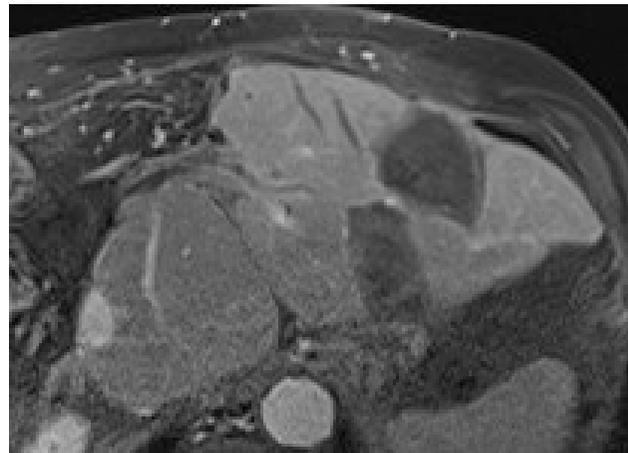




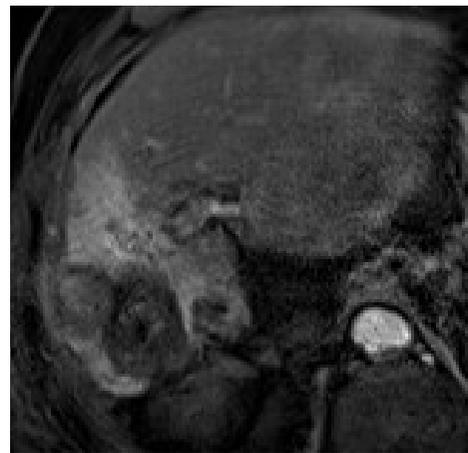
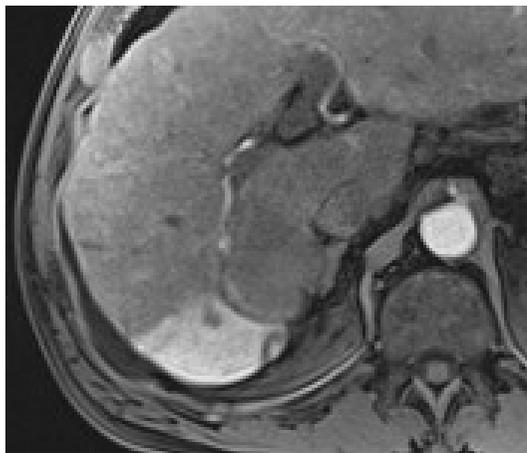
Inflammation à J0

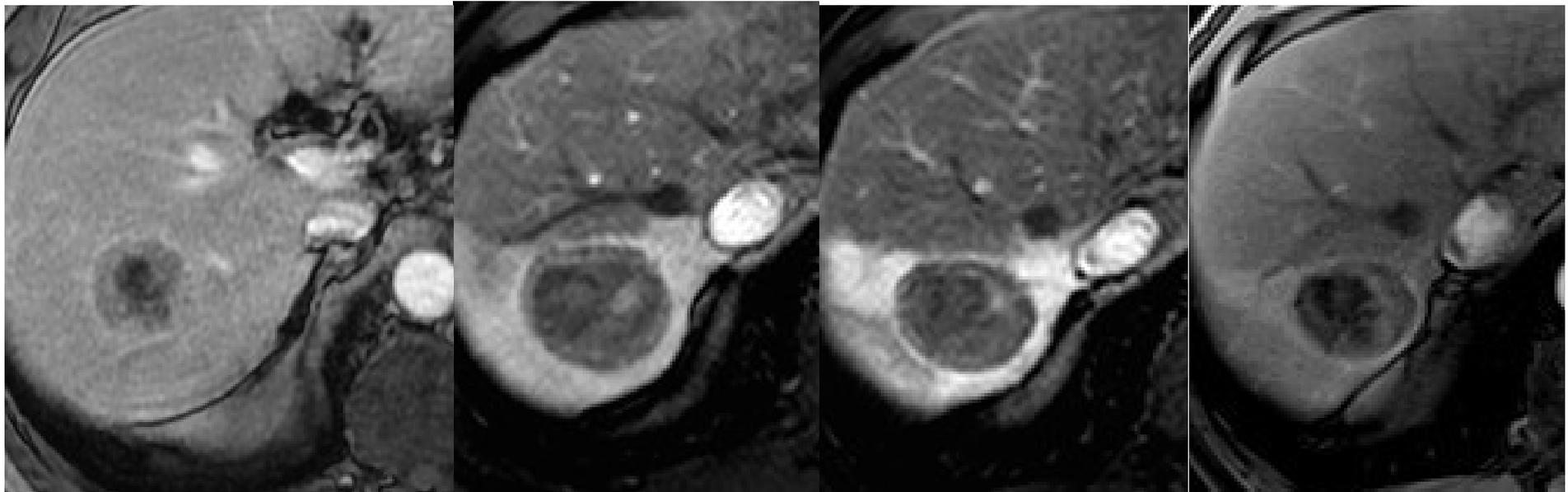


1 mois



À distance





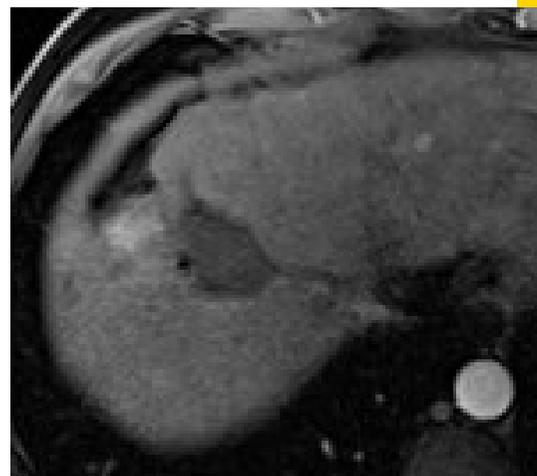
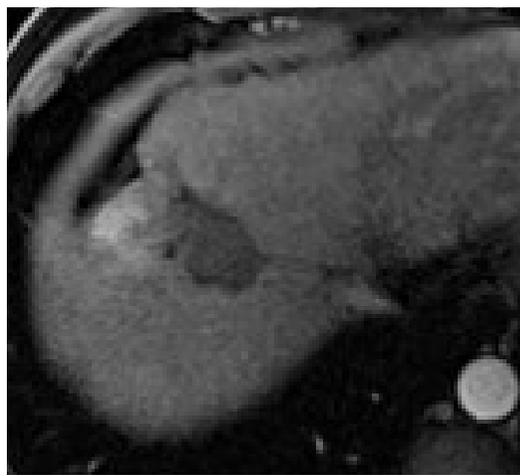
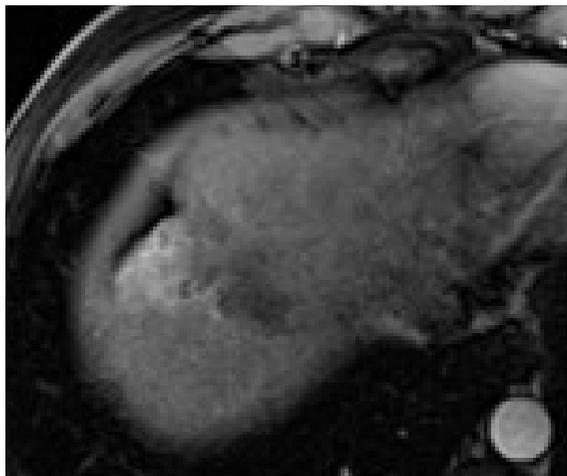
prethérapeutique

Février 2015

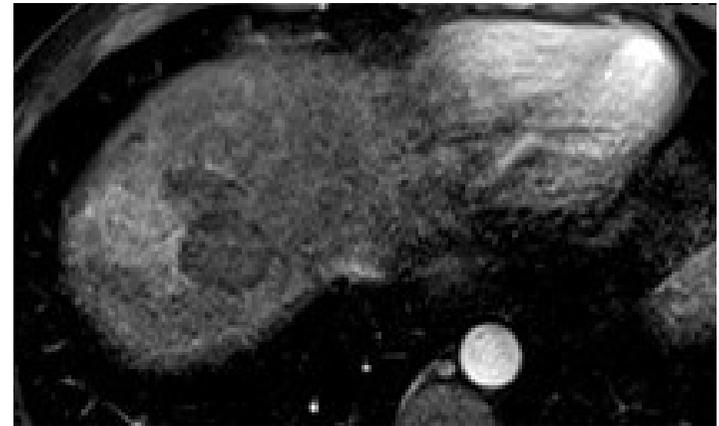
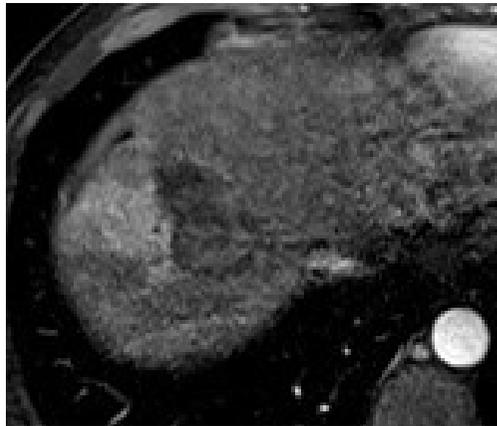
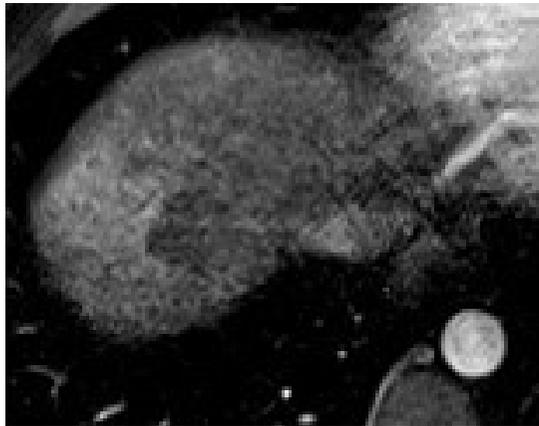
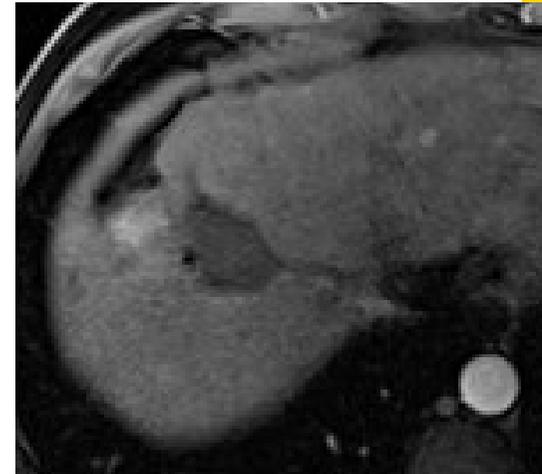
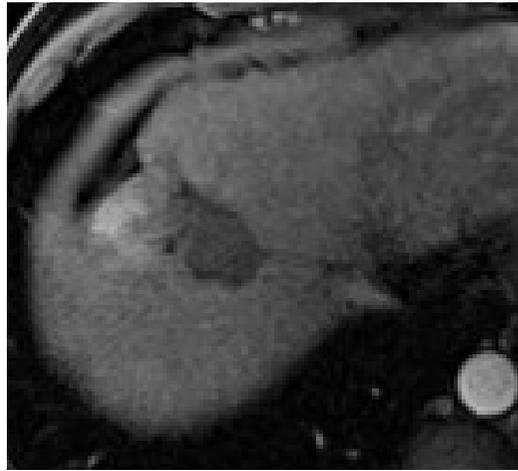
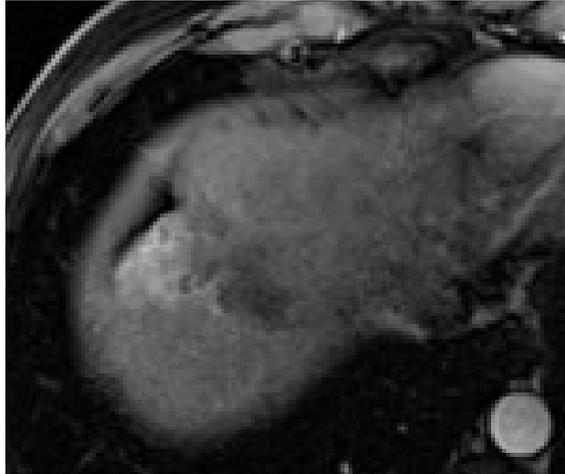
Mai 2015

Novembre 2015

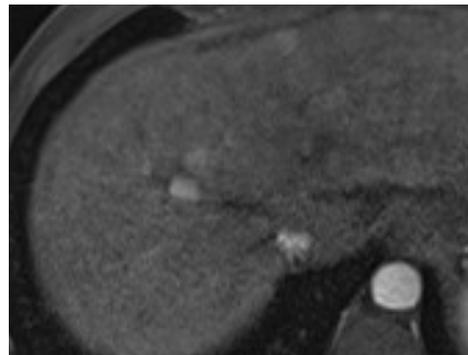
Mars 2016



Mars 2016



Mai 2015



Imagerie préthérapeutique

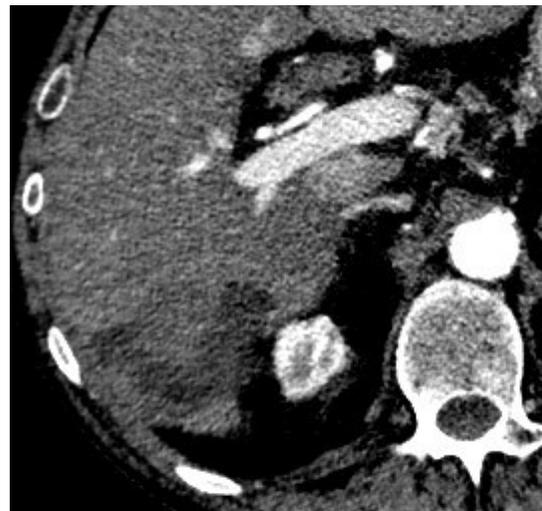
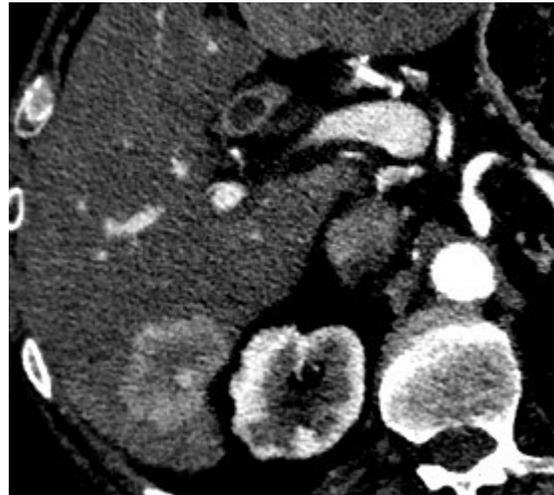
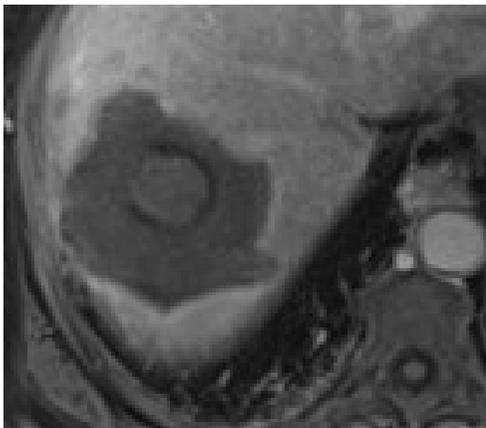
Analyse
de la
Cicatrice

A 1 MOIS

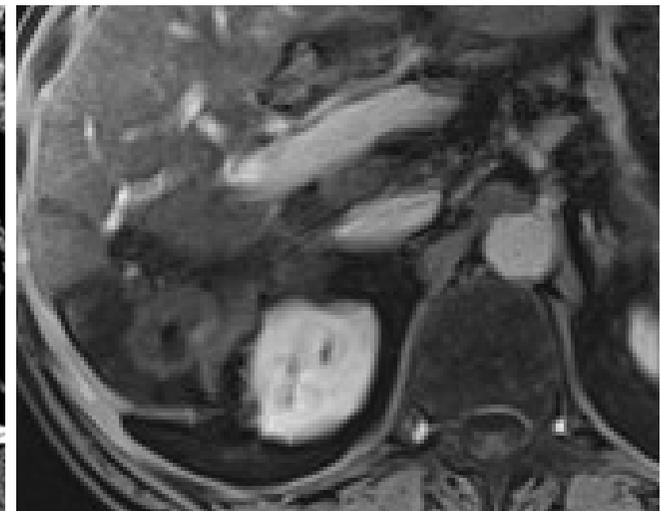
Taille suffisante?
Reliquat tumoral?



Lésion initiale cholangiok

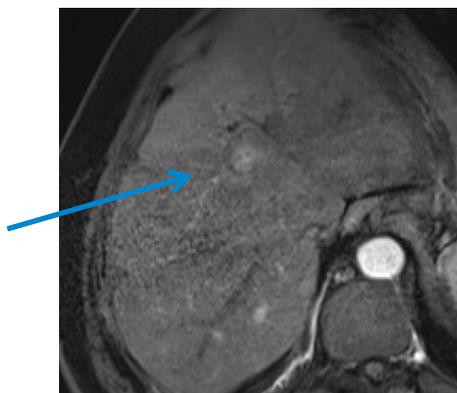
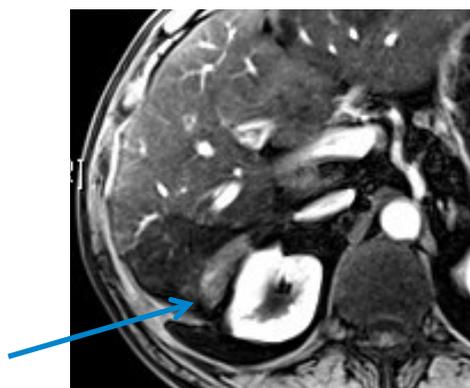


1ère RF



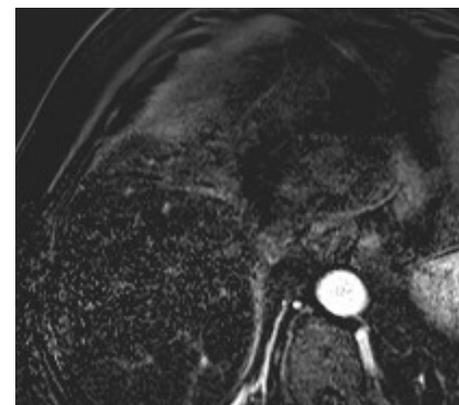
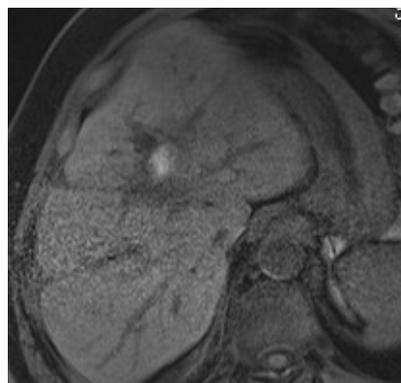
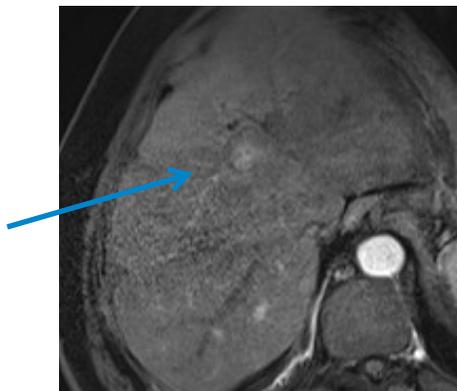
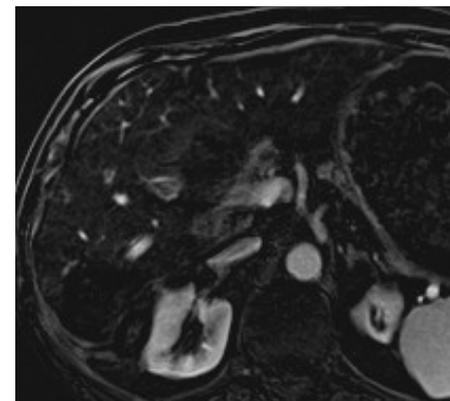
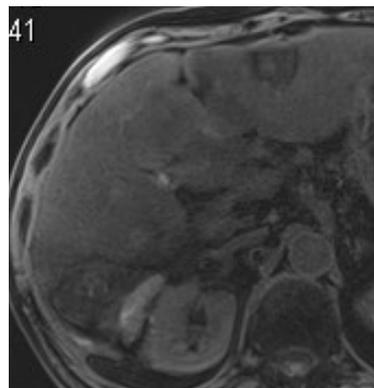
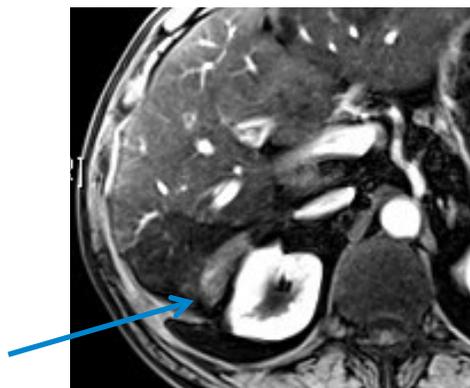
2de RF

Analyse
de la
Cicatrice
A DISTANCE



artériel

Analyse
de la
Cicatrice
A DISTANCE



artériel

sans injection

soustraction

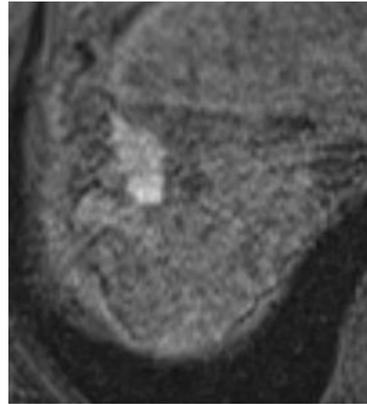
Analyse
de la
Cicatrice

CHC

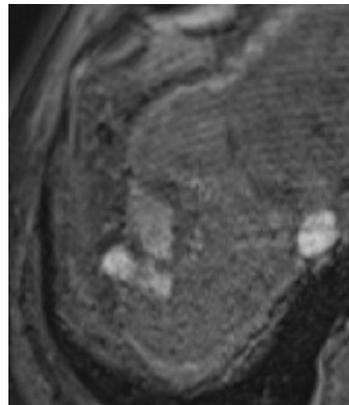
Récidive?
Même tardive (2ans...)

CHC: prise de contraste
nodulaire

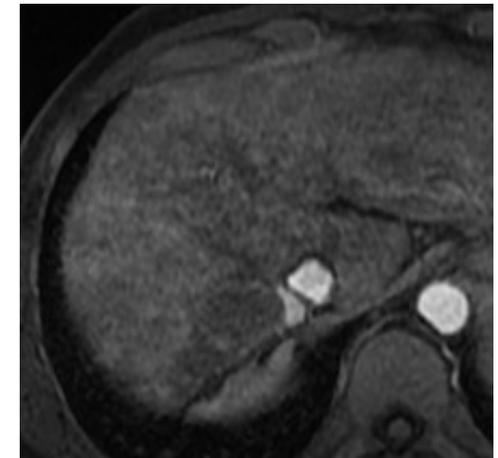
Si doute, et en vue
d'un traitement de la récidive:
Echographie avec contraste



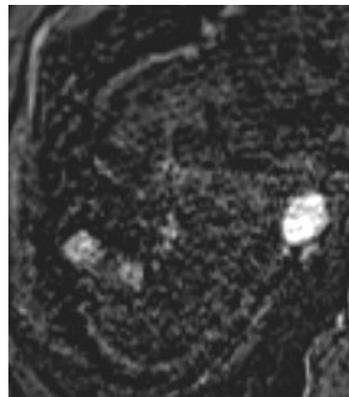
sans injection



artériel



Heat sink effect



soustraction

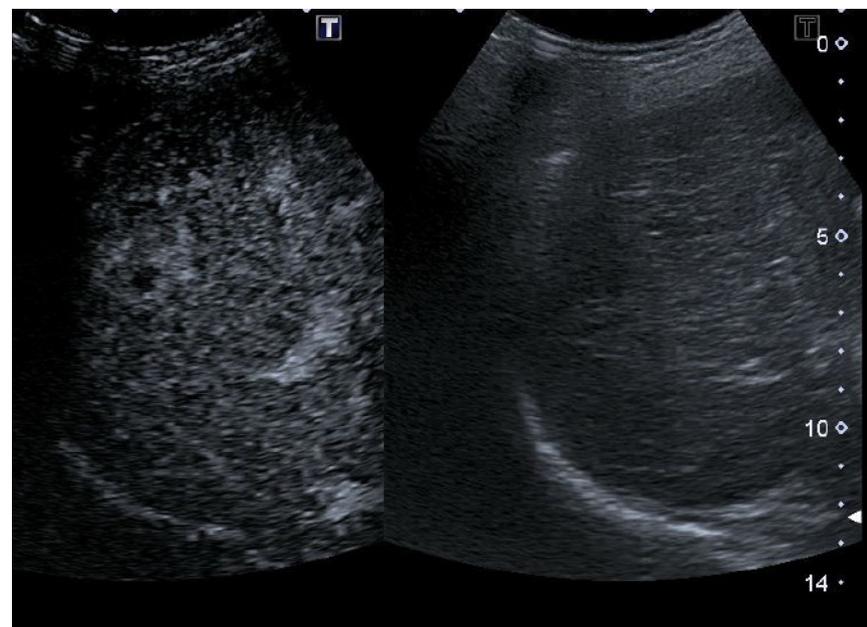
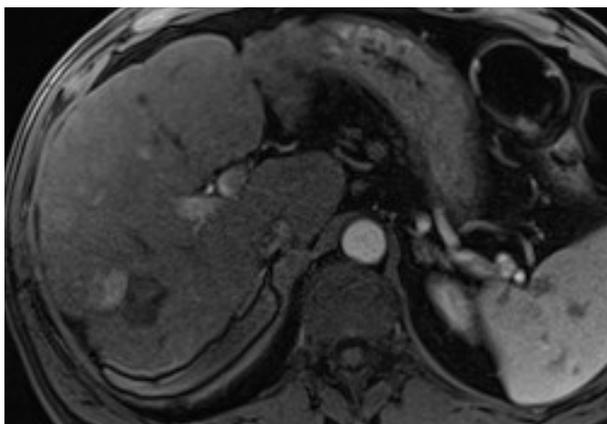


Analyse
de la
Cicatrice

CHC

Récidive?

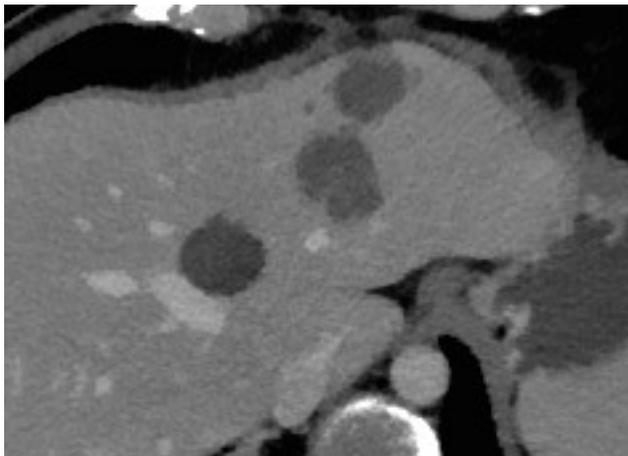
Si doute,
et en vue d'un traitement de la récurrence:
Echographie avec contraste



Analyse
de la
Cicatrice

METASTASE

Analyse de la périphérie de la cicatrice



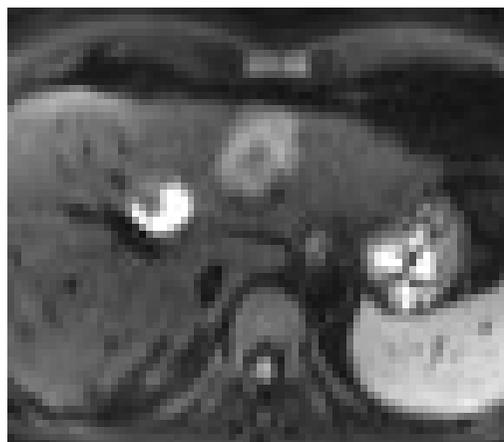
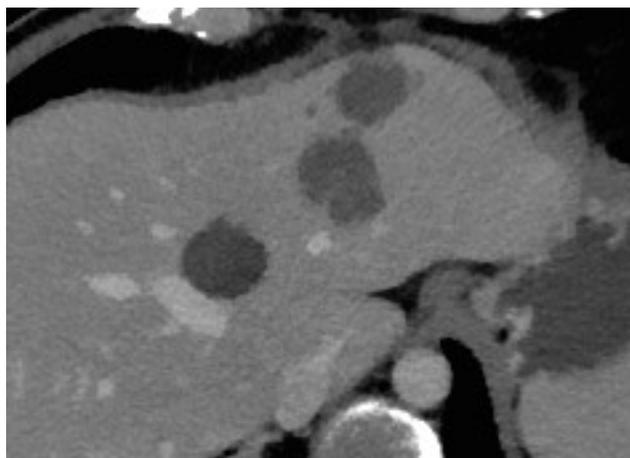
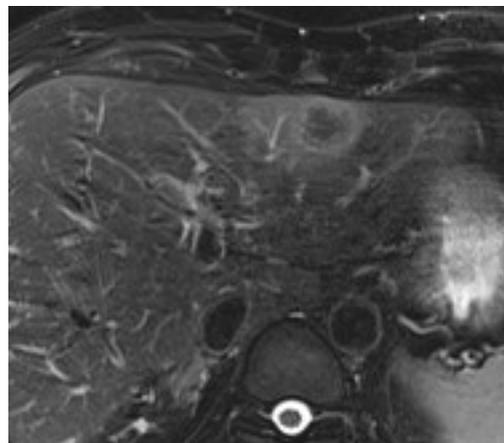
Analyse
de la
Cicatrice

METASTASE



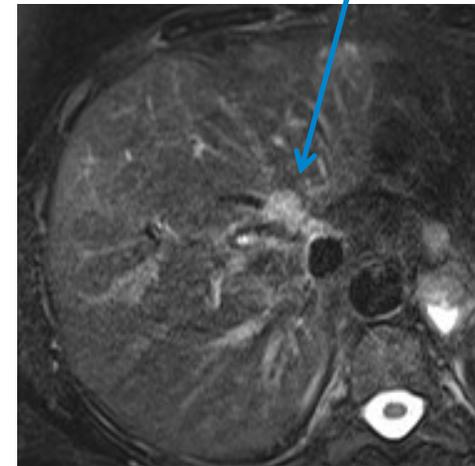
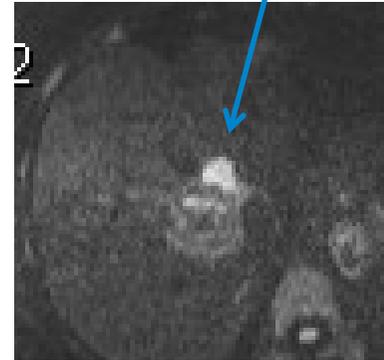
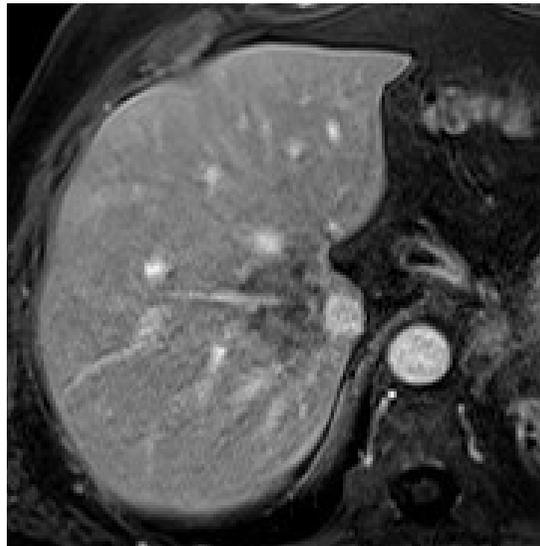
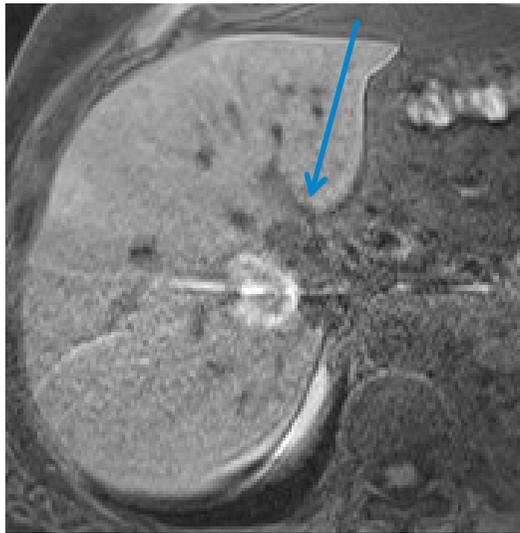
IRM, Petscan

Analyse de la périphérie de la cicatrice
Intérêt de la diffusion, du T2
Mesure du volume tumoral



Analyse
de la
Cicatrice

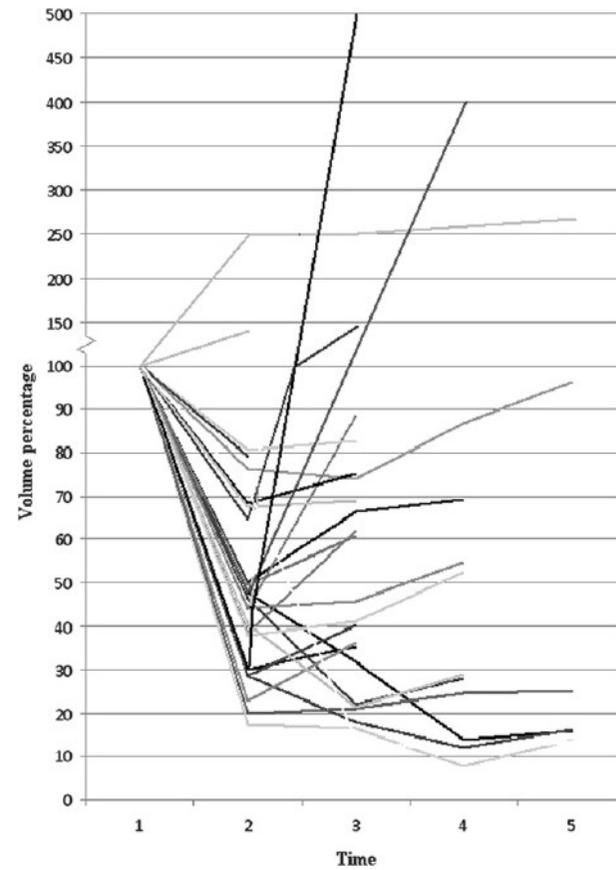
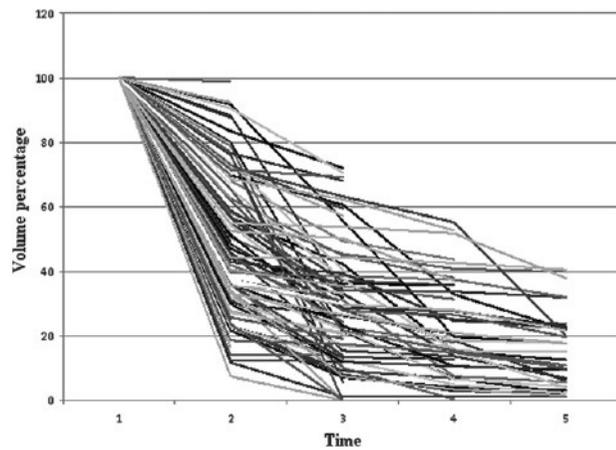
METASTASE



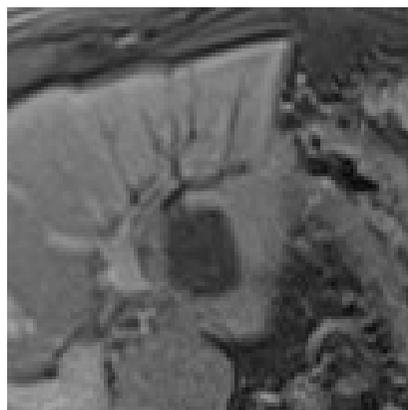
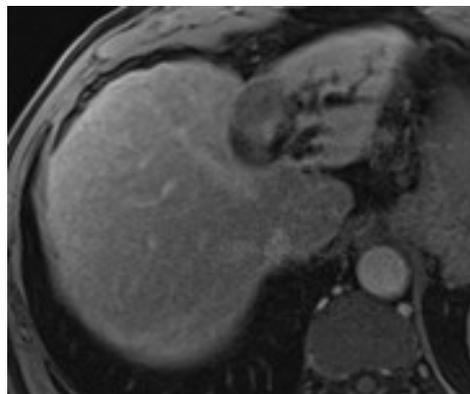
Increase in Volume of Ablation Zones during Follow-up Is Highly Suggestive of Ablation Site Recurrence in Colorectal Liver Metastases Treated with Radiofrequency Ablation

Petra G. Kele, MD, Koert P. de Jong, MD, PhD, and Eric J. van der Jagt, MD, PhD

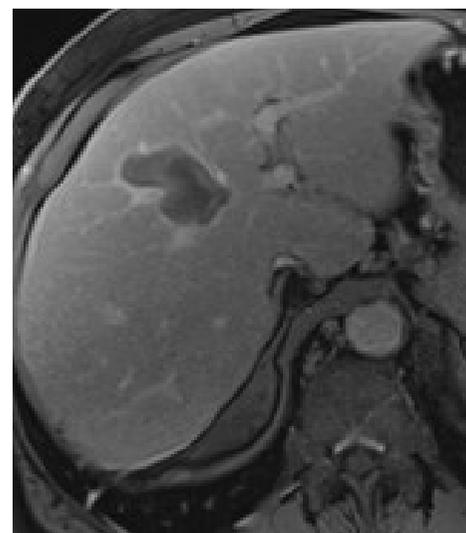
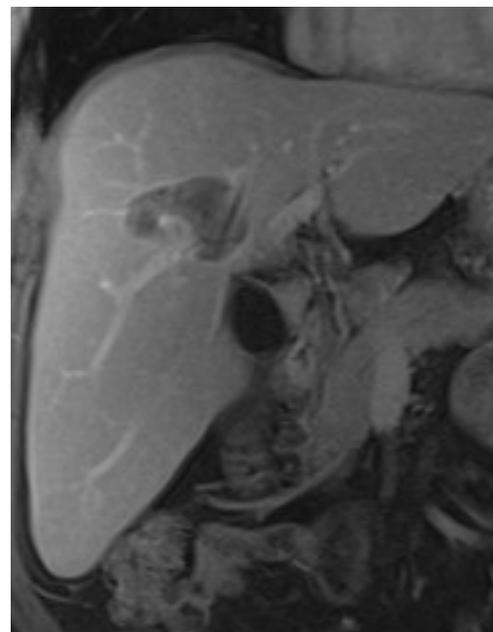
J Vasc Interv Radiol 2012; 23:537-544



Cicatrice
Variantes



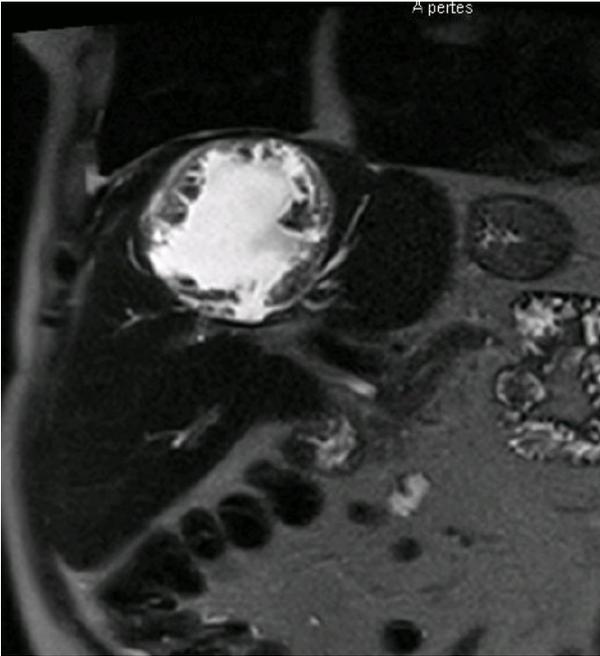
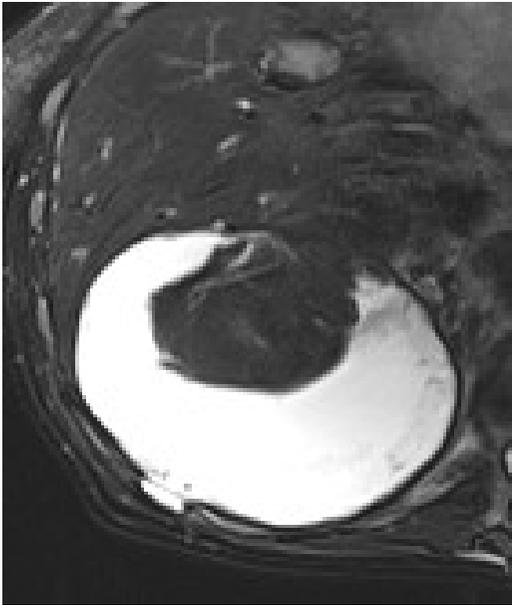
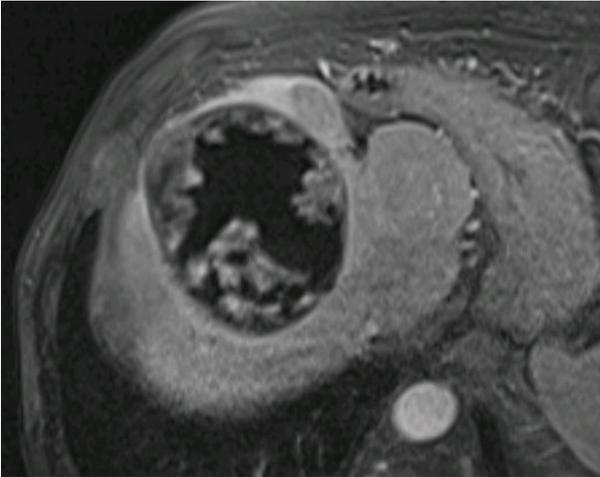
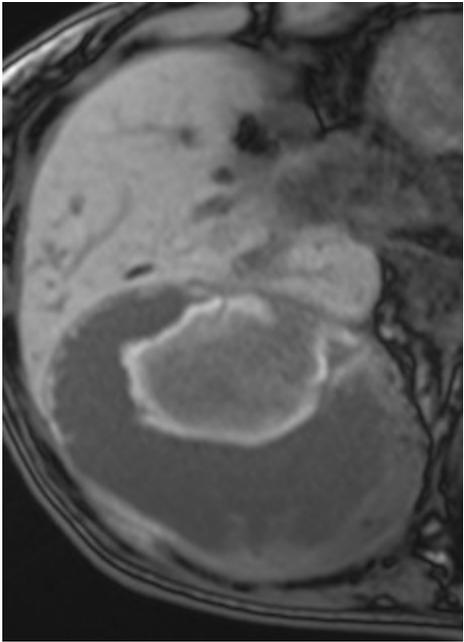
Atteinte biliaire

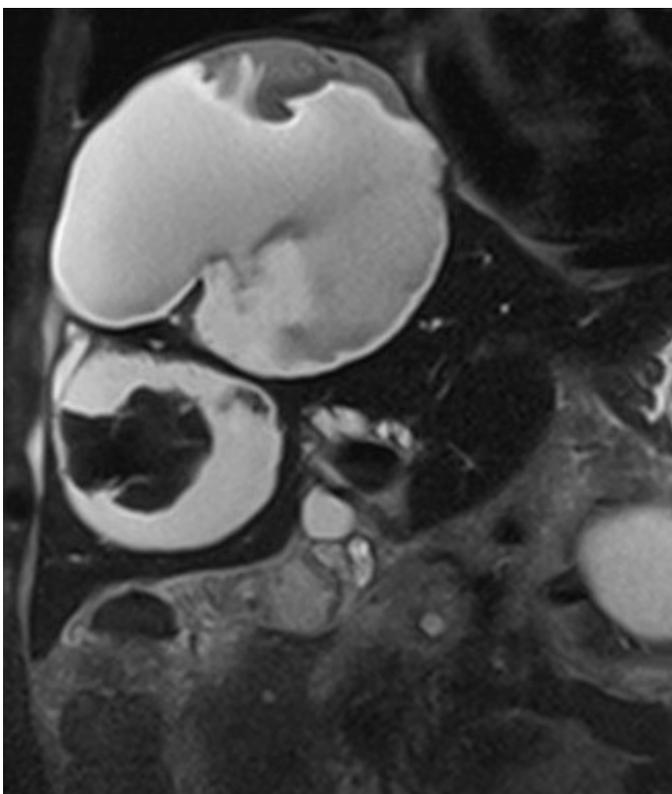


Heat sink effect



« kystisation »

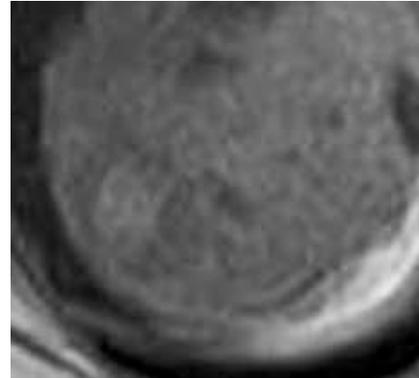




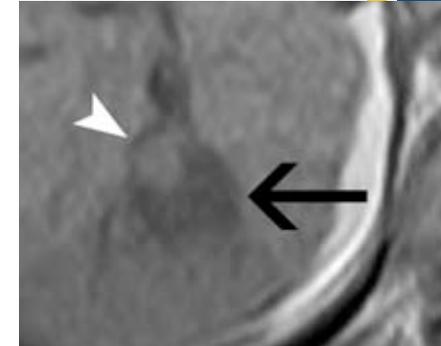
Cicatrice de RF après chemoembolisation lipiodolée



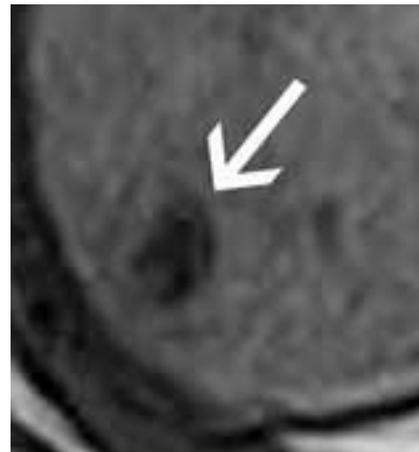
RF et CHC steatosique



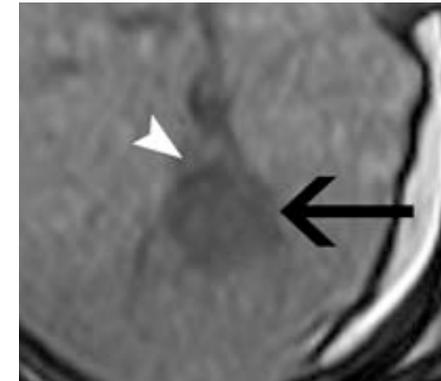
IN



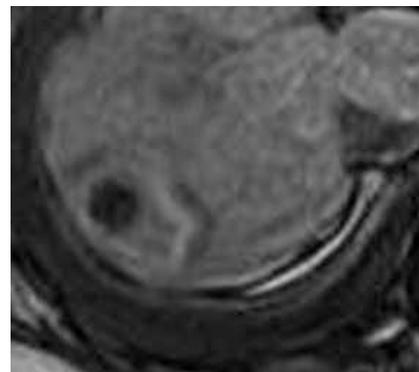
La RF modifie peu
le contingent stéatosique
d'un CHC



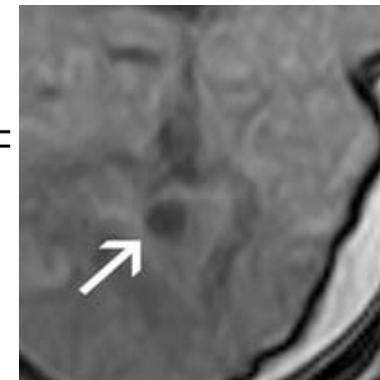
OUT



Pupulim, Radiology 2009

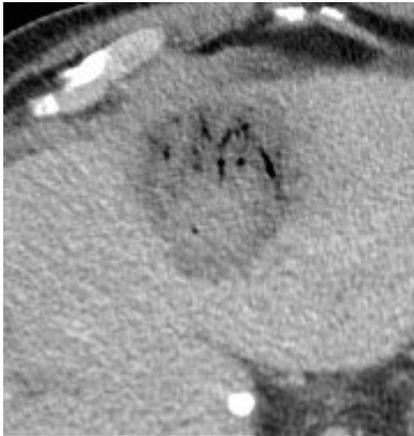


Post RF



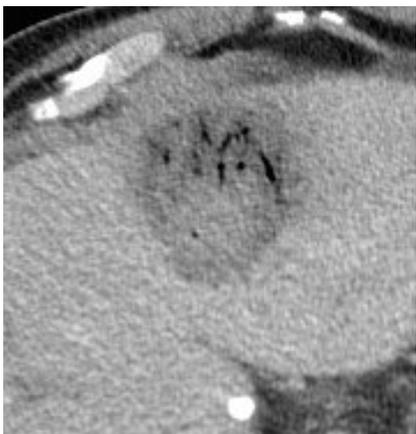
Cicatrice
Complications

surinfection



Cicatrice
Complications

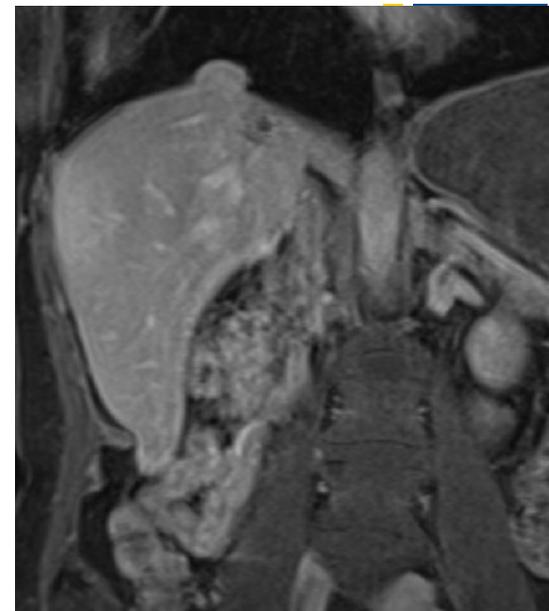
surinfection



Ulcère perforé bouché

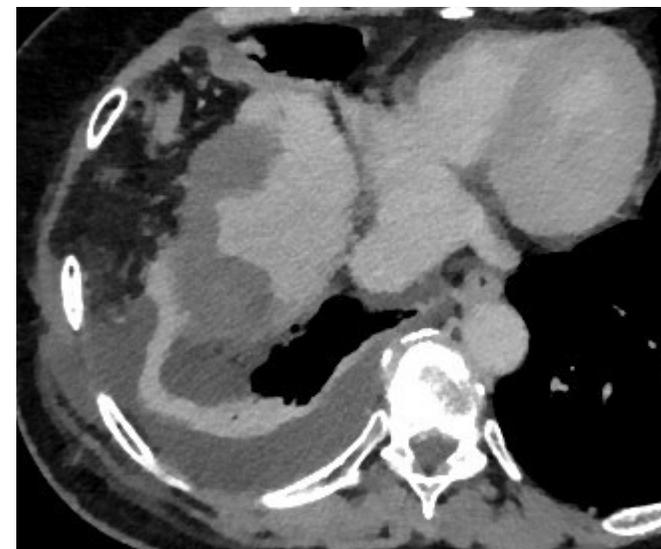
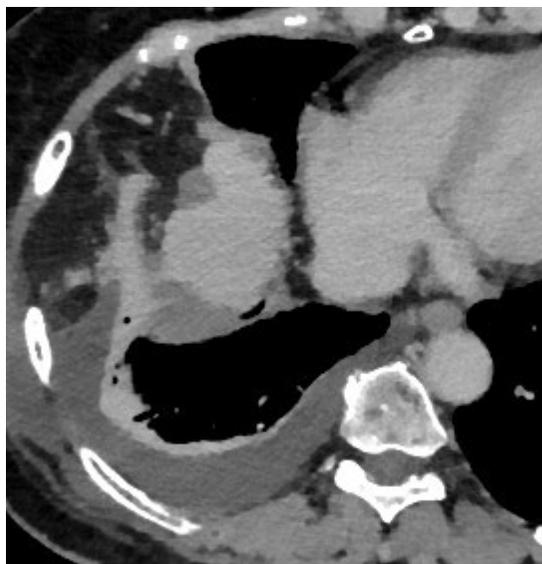
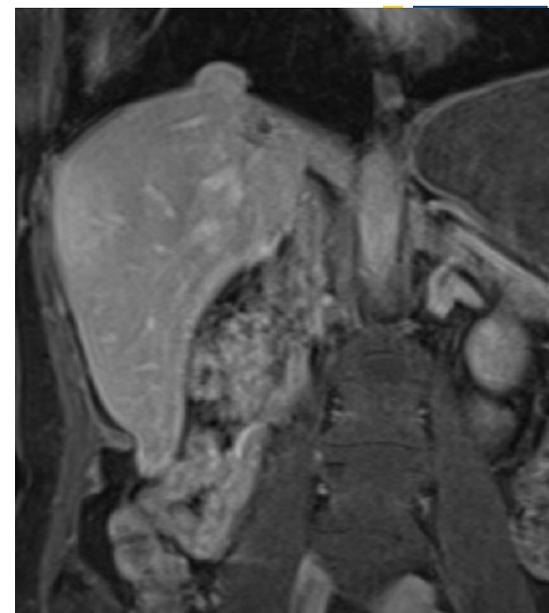
Cicatrice
Complications

Atteinte diaphragmatique



Cicatrice
Complications

Atteinte diaphragmatique



Abord trans-thoracique

Conclusions

- Suivi le plus souvent simple
- Préférer l'IRM si possible
- Intérêt de la comparaison avec l'imagerie antérieure et préthérapeutique
- Doute: écho de contraste , Pet scan

