Percutaneous Urtrasound-Guided Radiofrequency Ablation for Extrahepatic Neoplasms

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Back Ground

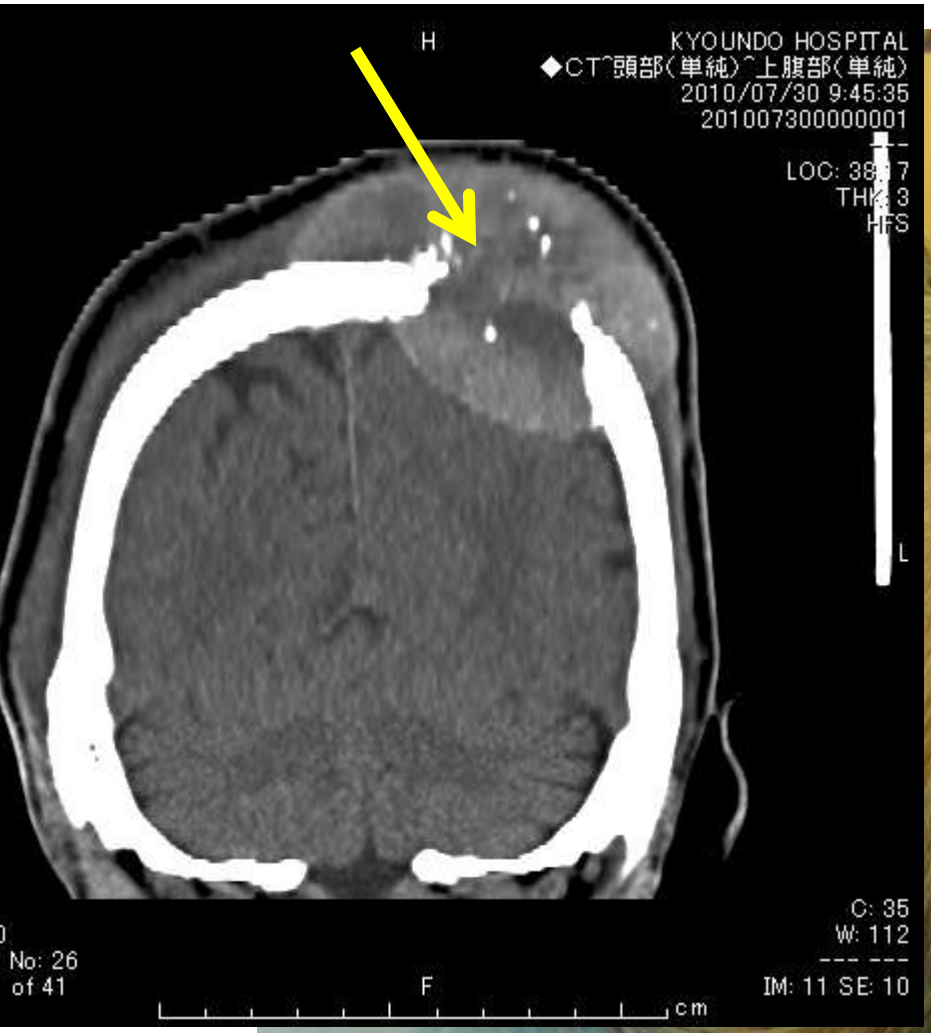
- Radiofrequency ablation (RFA) is a minimally invasive treatment widely performed for the liver neoplasms.

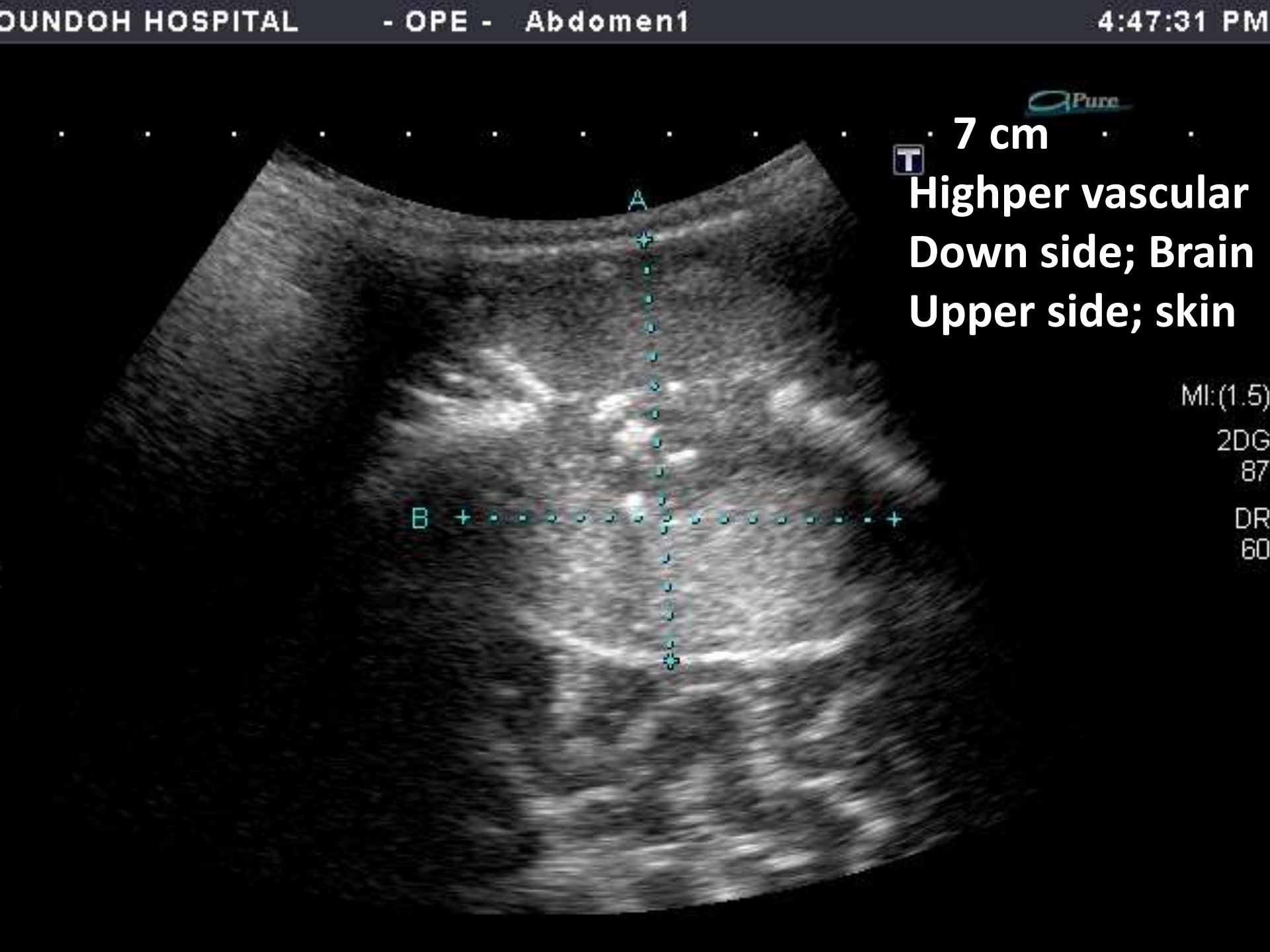
- Recently, resulting of long prognosis has made by surgery, ablation and chemotherapy, extrahepatic neoplasms have found out in the clinical practice.


Painless RFA
using anethtegia

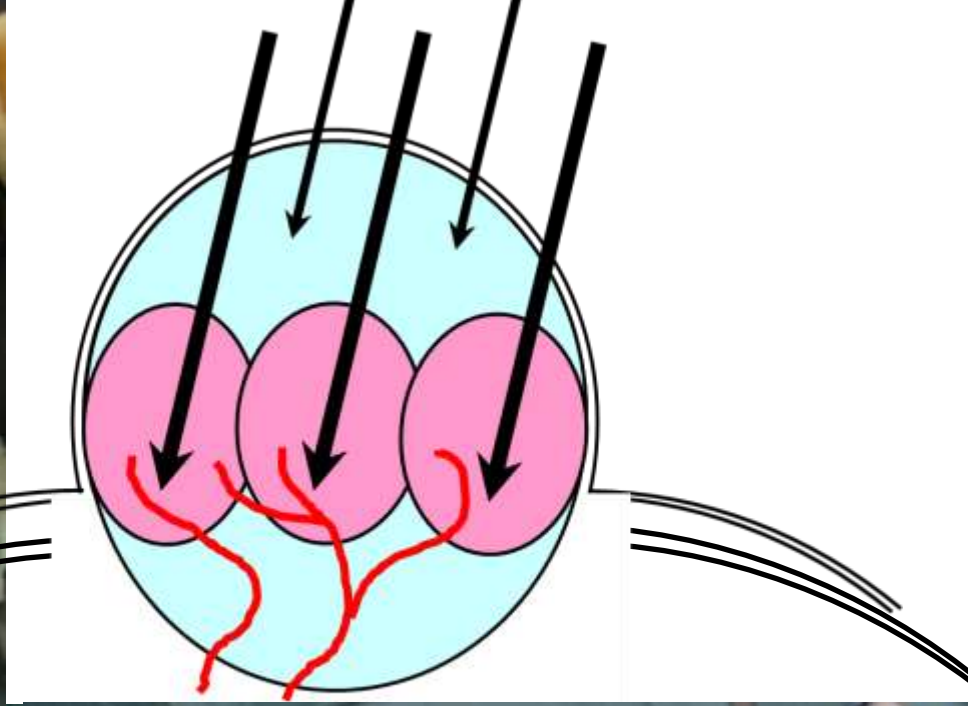
Objective

The aim of this study was to describe our experience with percutaneous urtrasound-guided RFA of extrahepatic neoplasms.

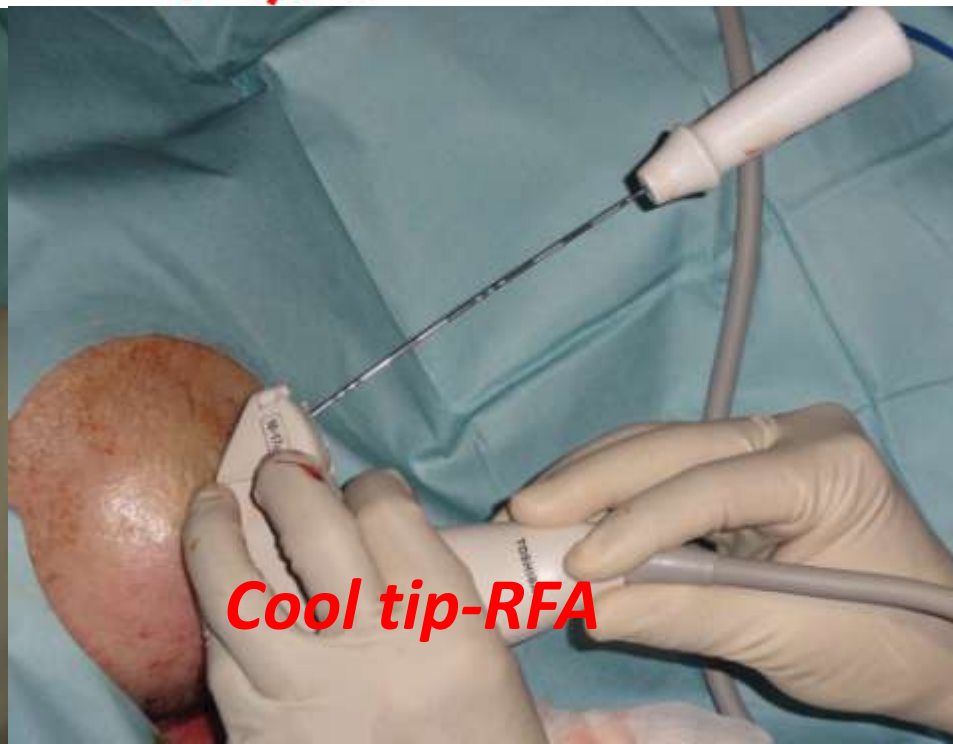

H
KYOUNDO HOSPITAL
◆CT^頭部(単純)^上腹部(単純)
2010/07/30 9:45:35
201007300000001
LOC: 38.7
THK: 3
HFS
L
C: 35
W: 112
IM: 11 SE: 10
No: 26
of 41
F
cm


OUNDOH HOSPITAL - OPE - Abdomen1 4:47:31 PM
7 cm
Highper vascular
Down side; Brain
Upper side; skin
MI:(1.5)
2DG
87
DR
60
A
B

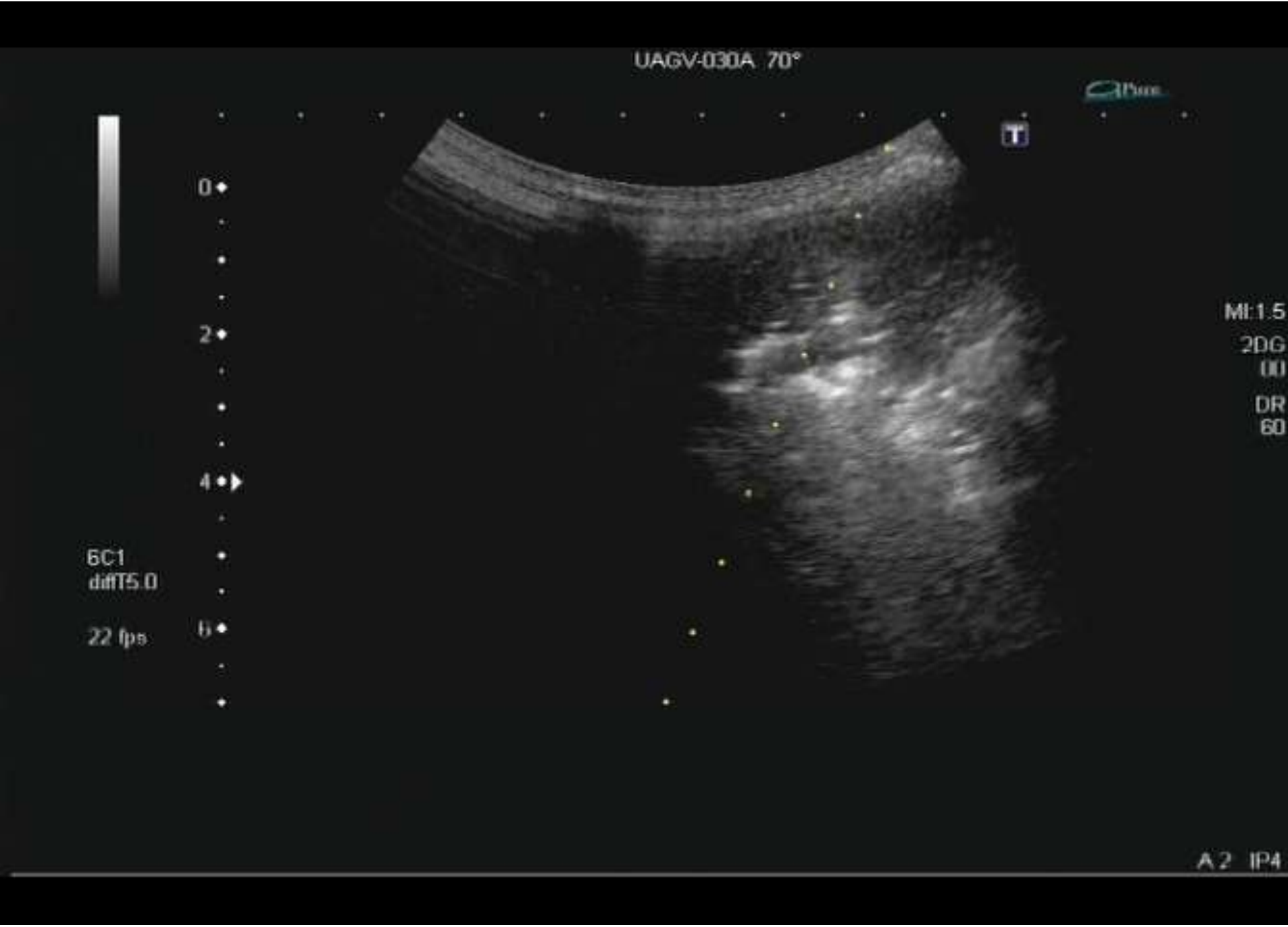

General Anestegia



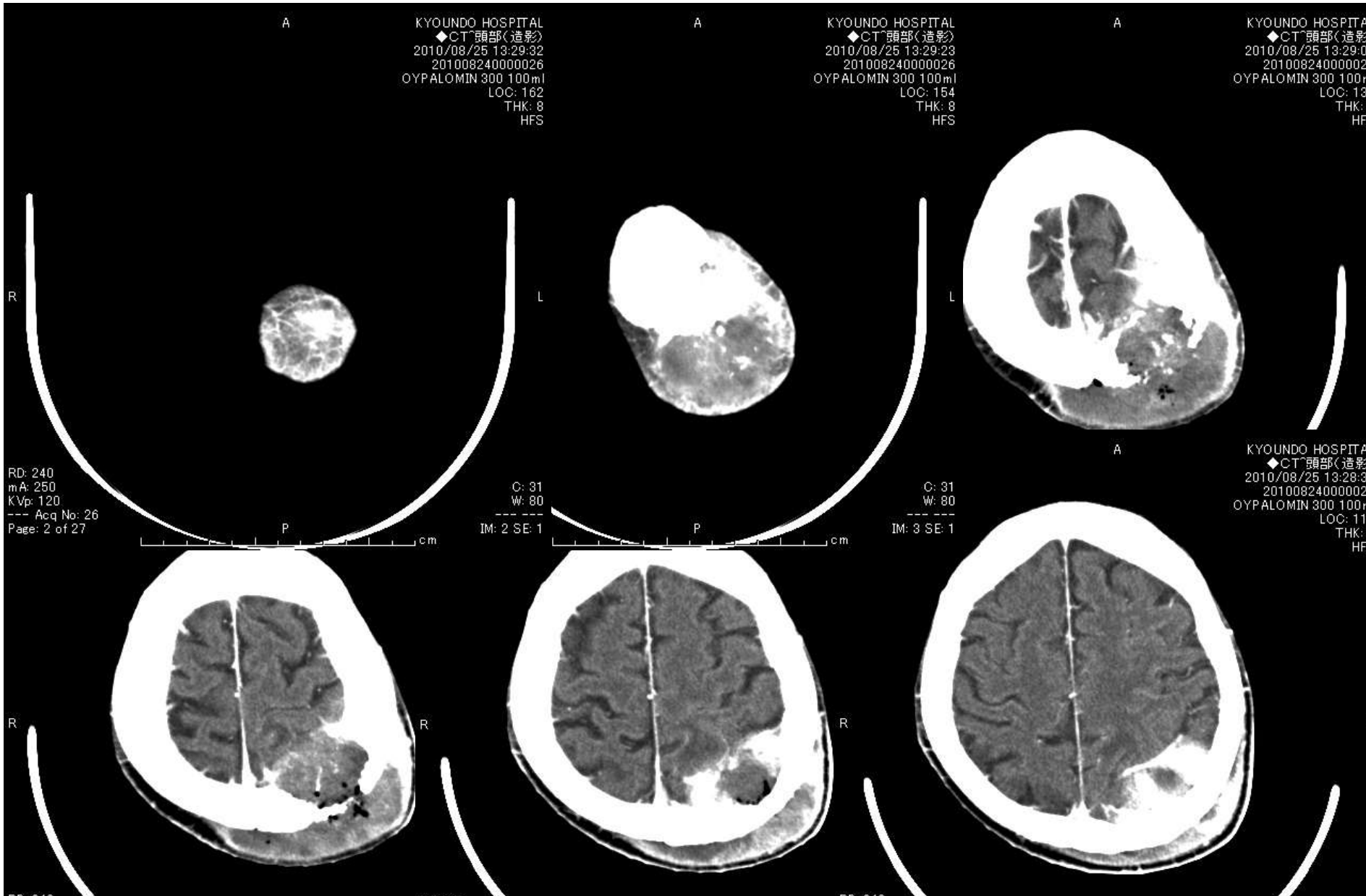

Ethanol injection


Cool tip-RFA


UAGV-030A 70°
0
2
4
6
6C1
diffT5.0
22 fps
MI:1.5
2DG
DR
60
A 2 IP4

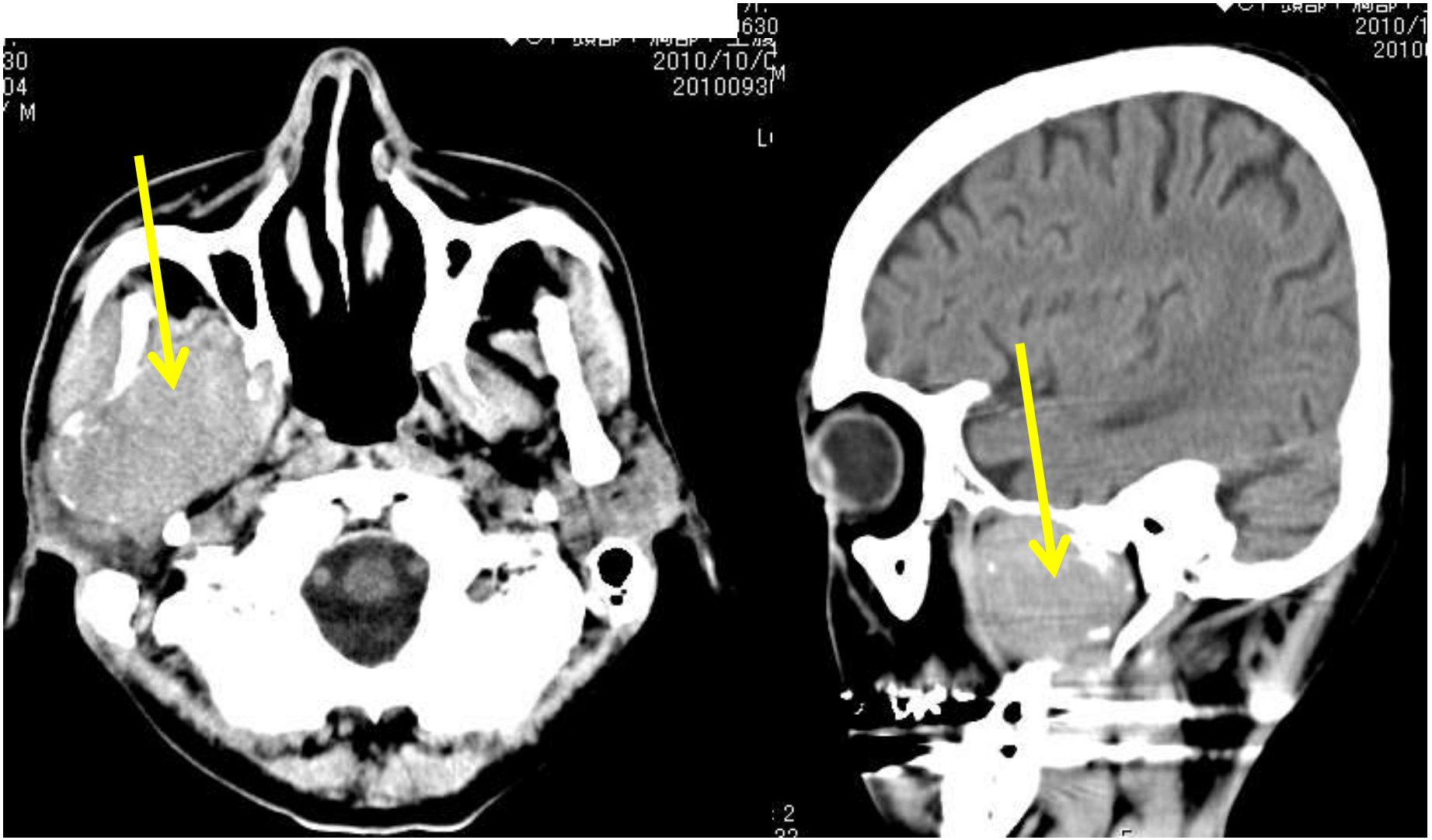

UAGV-030A 70°
0
2
4
6
6C1
diffT5.0
22 fps
MI:1.5
2DG
DR
60
A 2 IP4

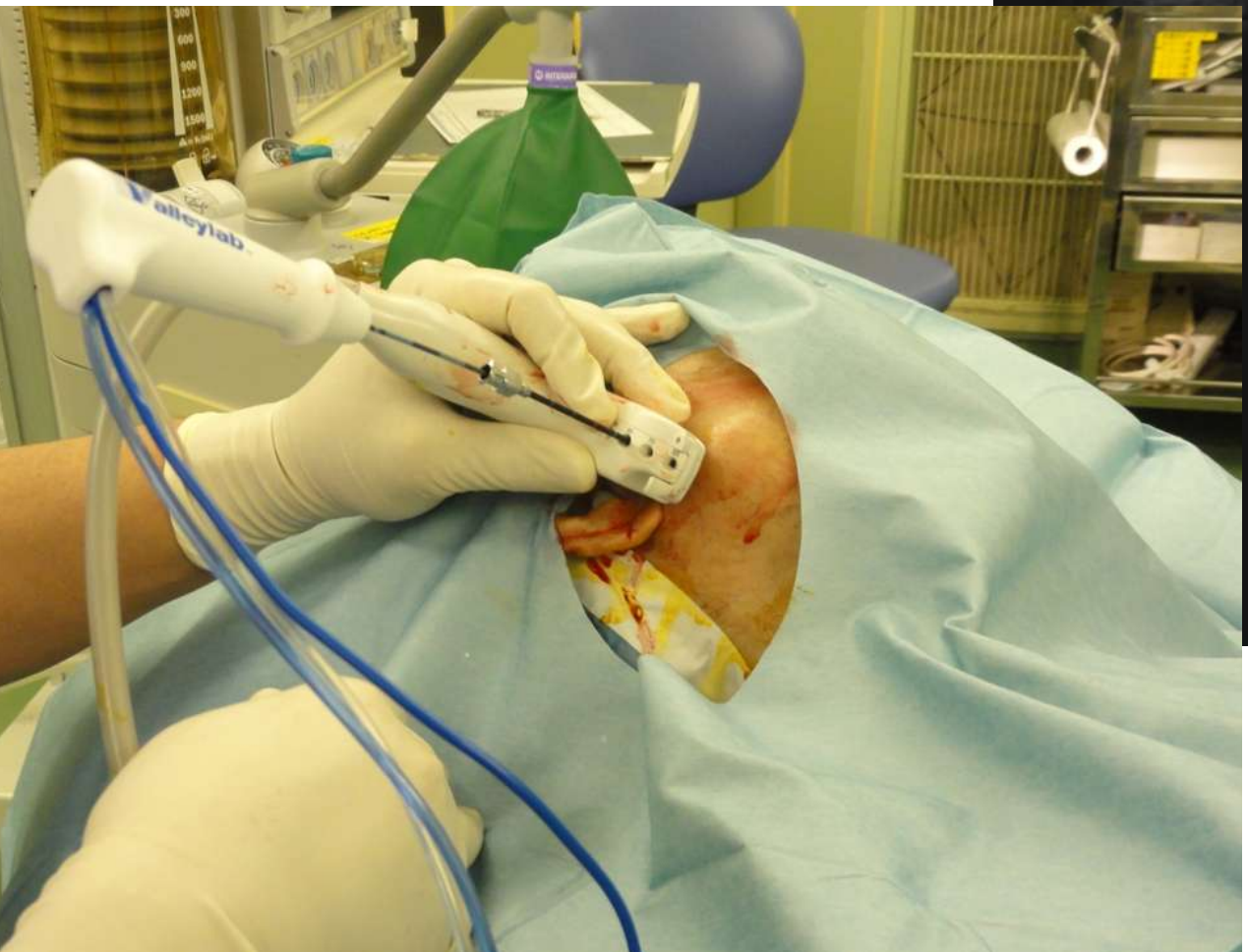
Treatment efficacy by Dynamic CT

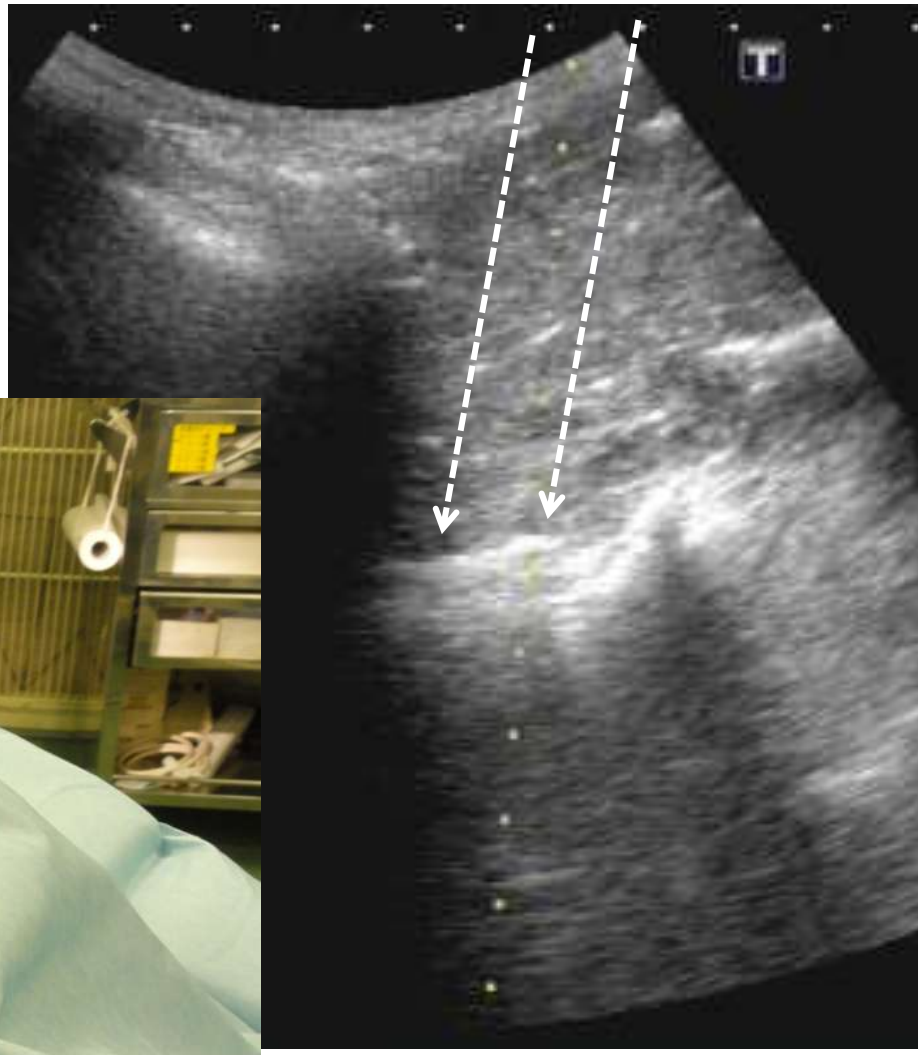


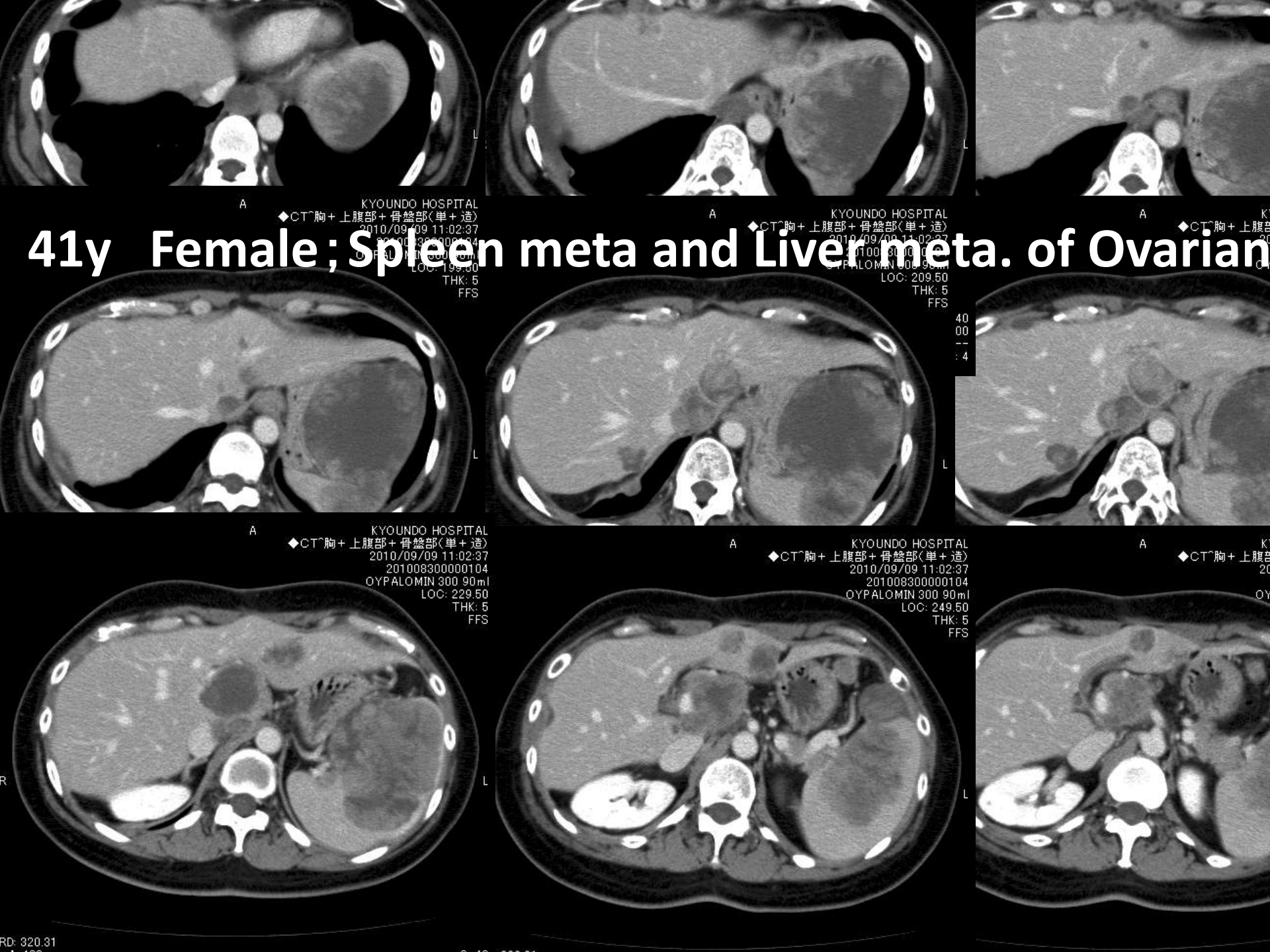
Before ***After 1 year***

Jaw Bone Meta. of HCC

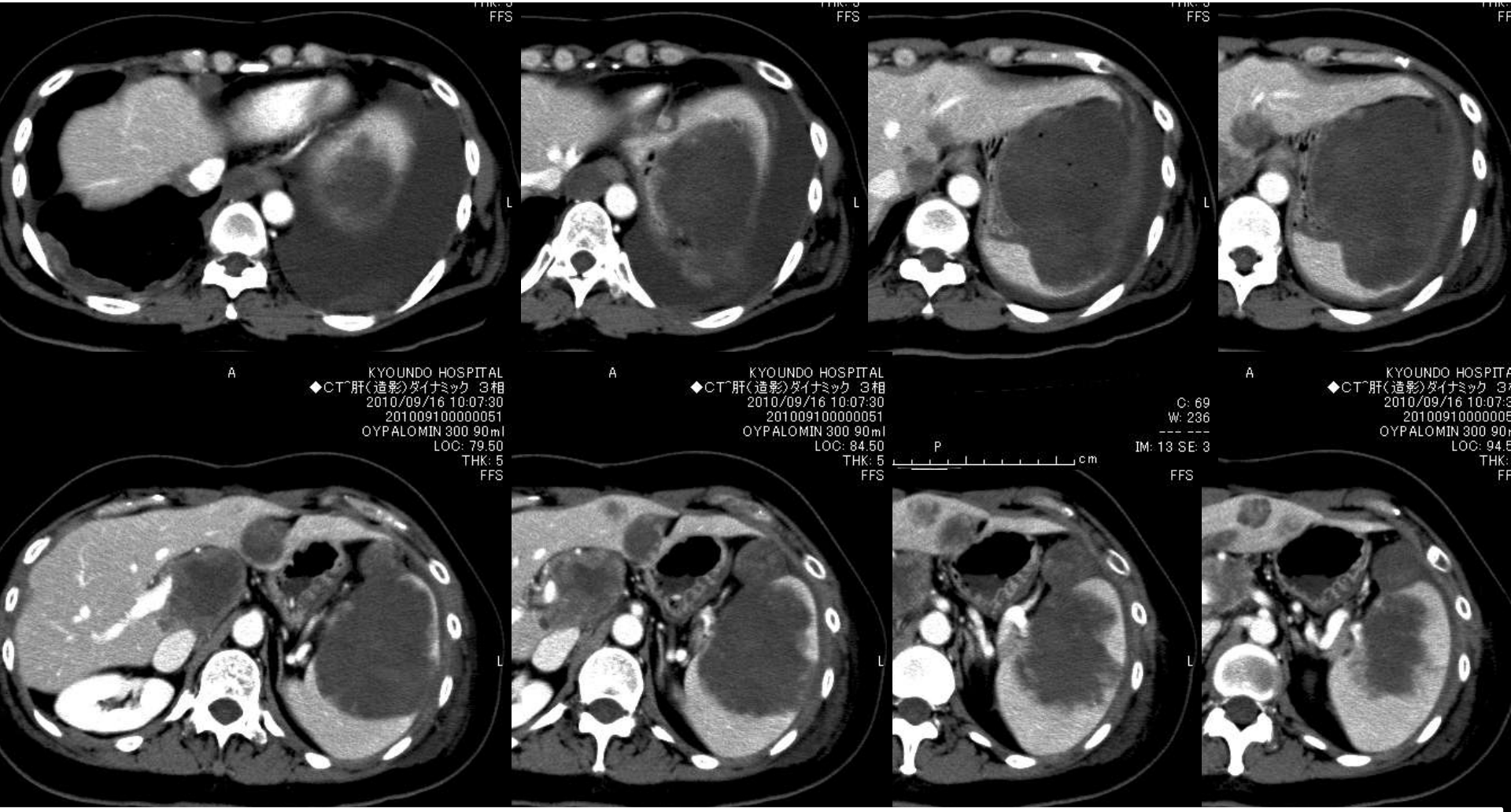



Pallsylab

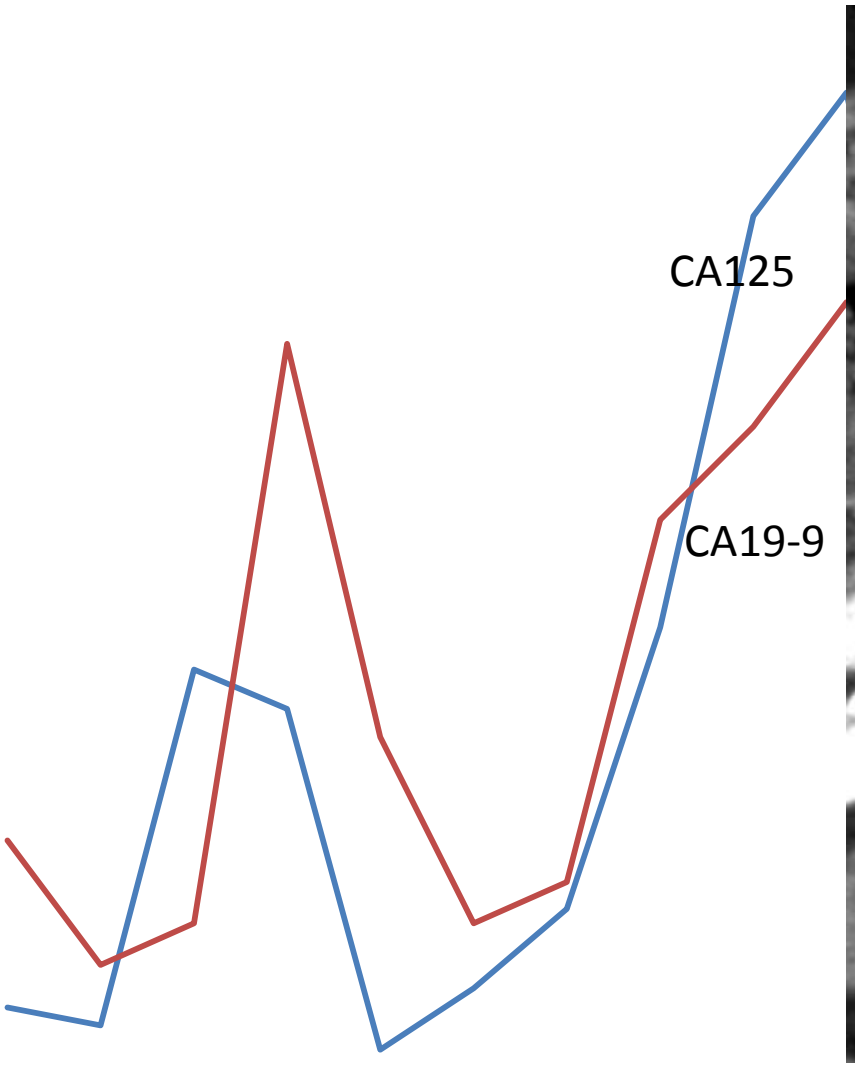



41y Female ; Spleen meta and Liver meta. of Ovarian
KYOUNDO HOSPITAL
◆CT^胸+上腹部+骨盤部(単+造)
2010/09/09 11:02:37
201008300000104
OYPALOMIN 300 90ml
LOC: 229.50
THK: 5
FFS
LOC: 209.50
LOC: 249.50
A
L
R

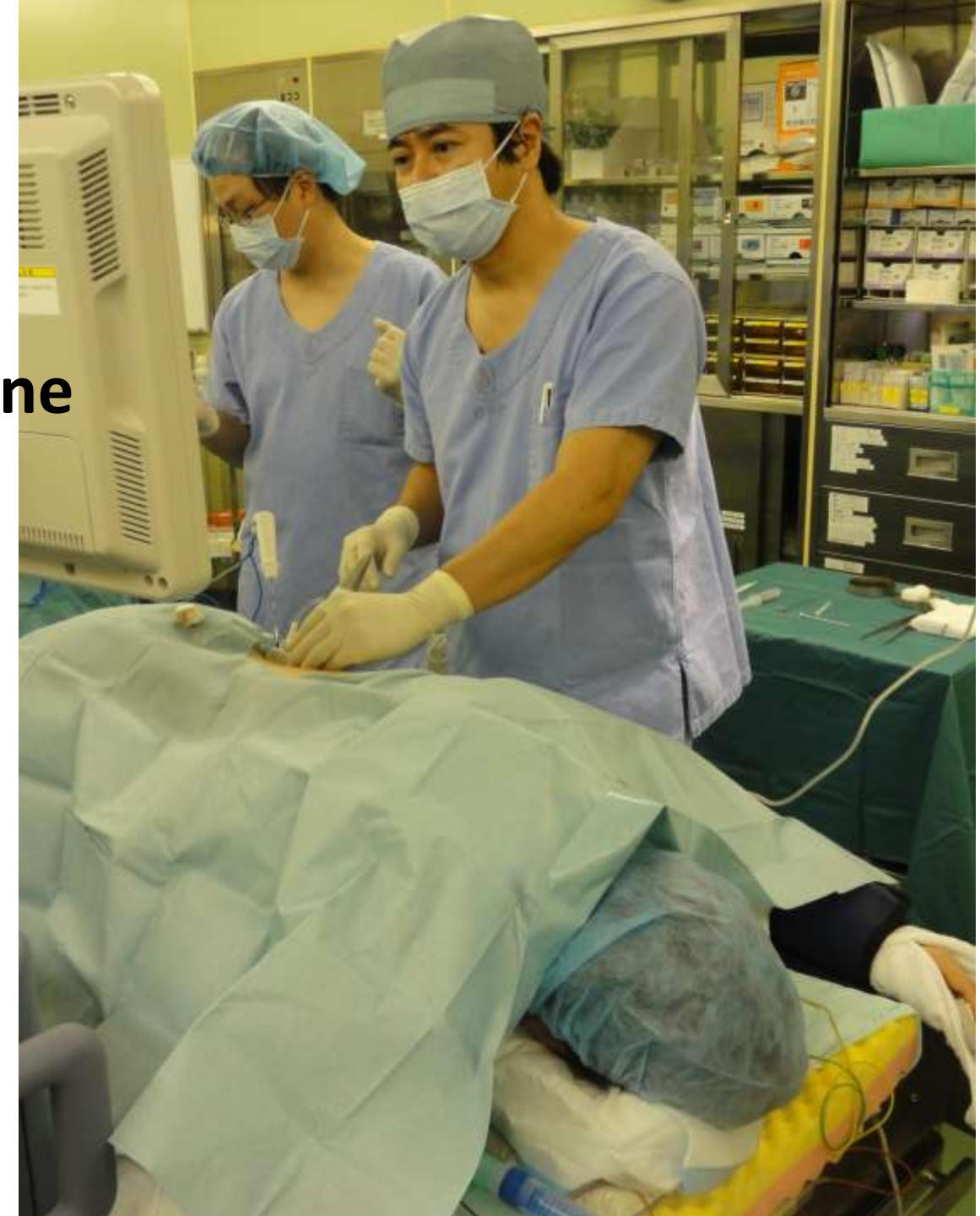
Spleen Meta. after RFA



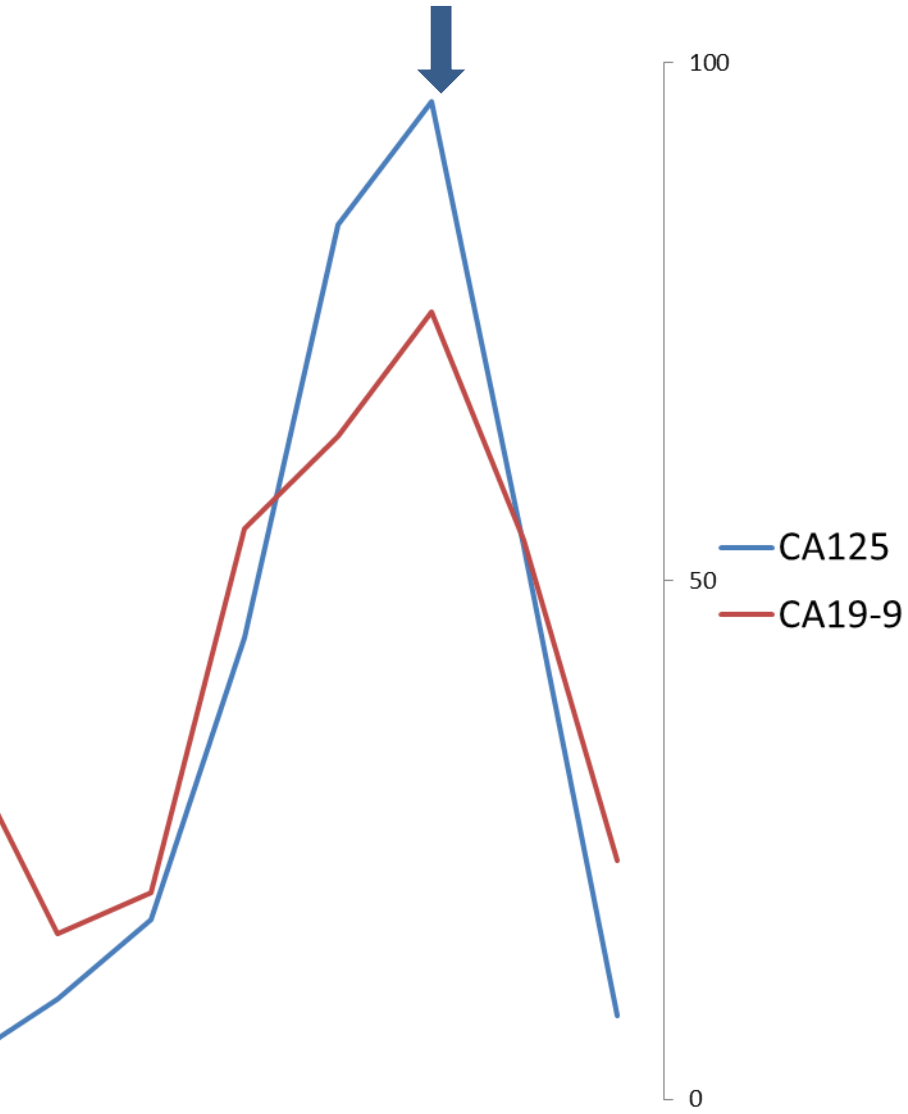
Renal meta of Uterine Ca.

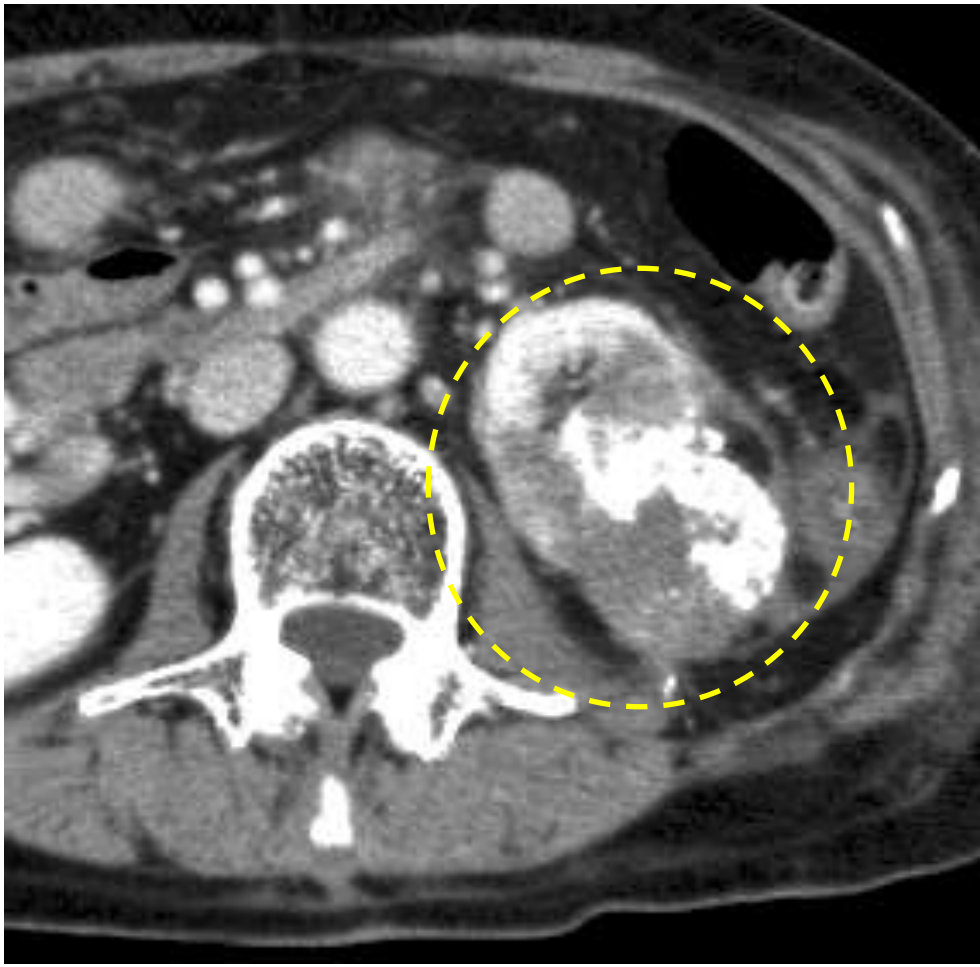


RFA
under prone
position

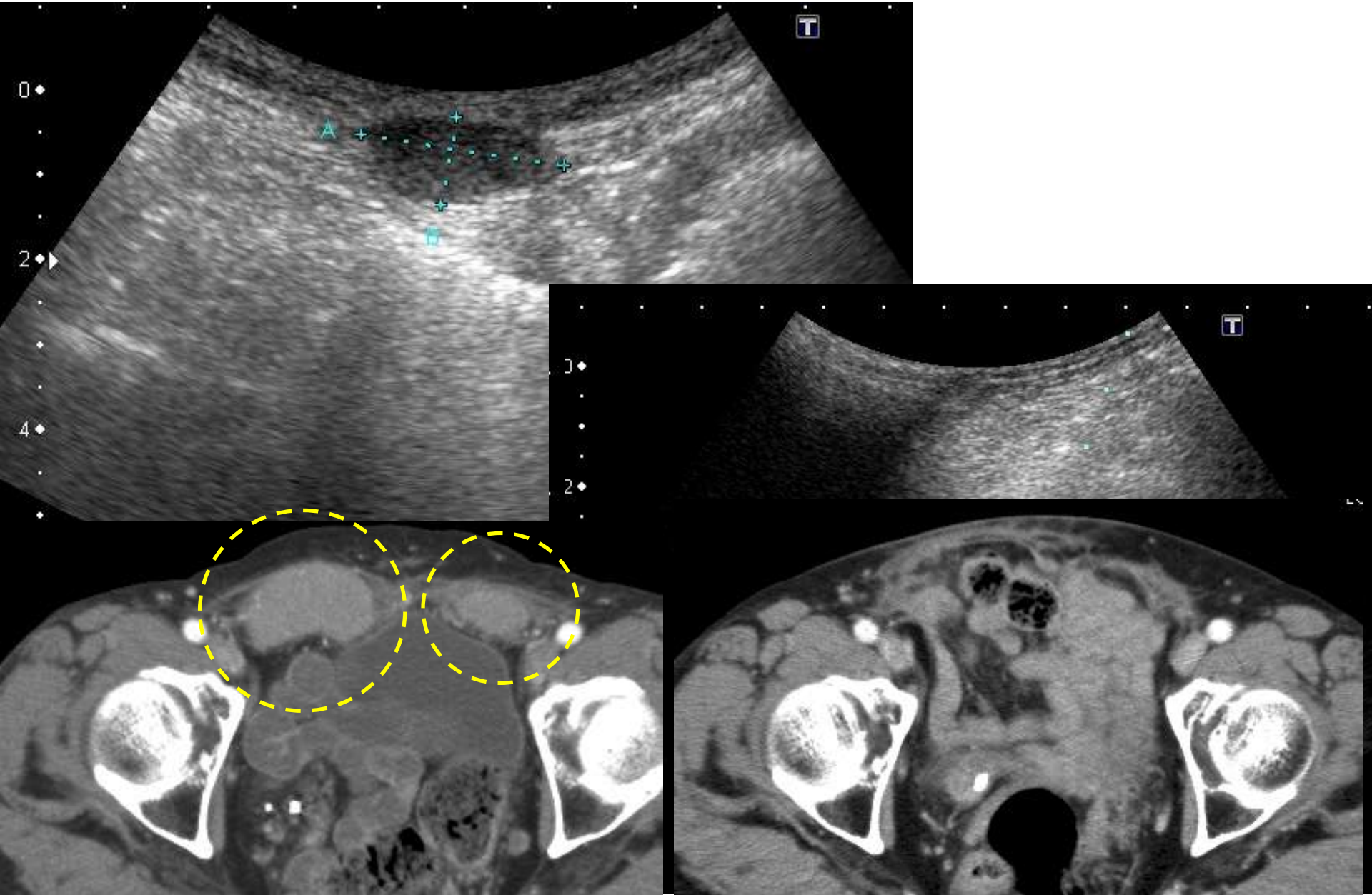


RFA



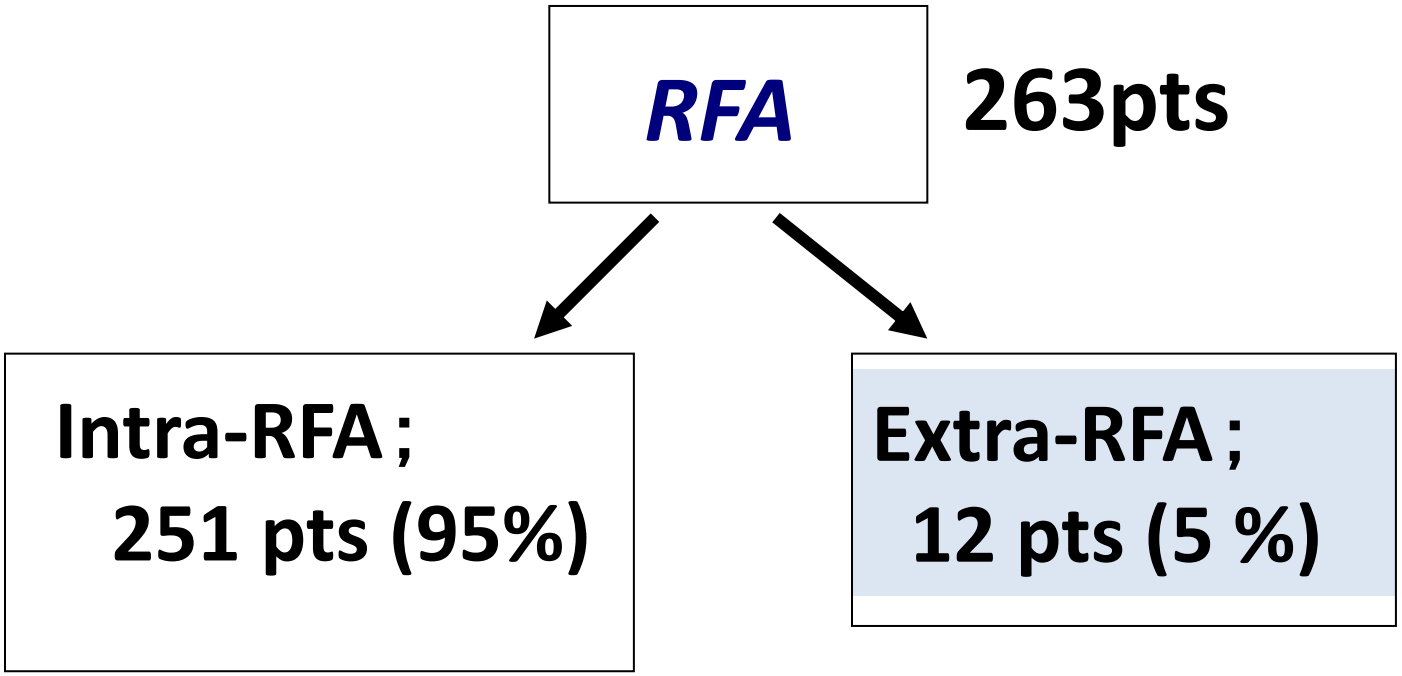


RFA for Abdominal Seeding



2008 - 2013

Kyoundo Hospital

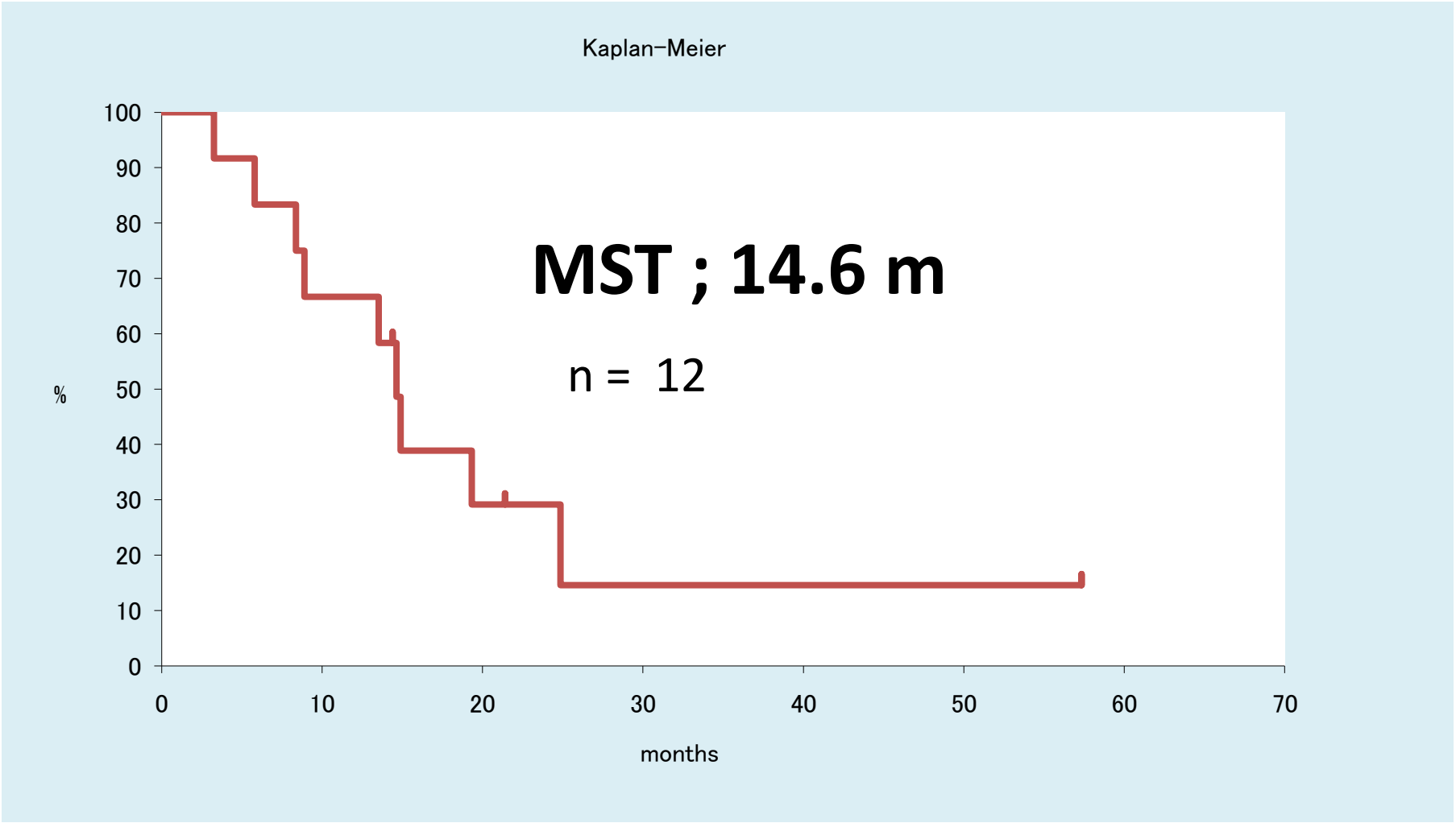


Extrahepatic Meta.
12Pts / 5y

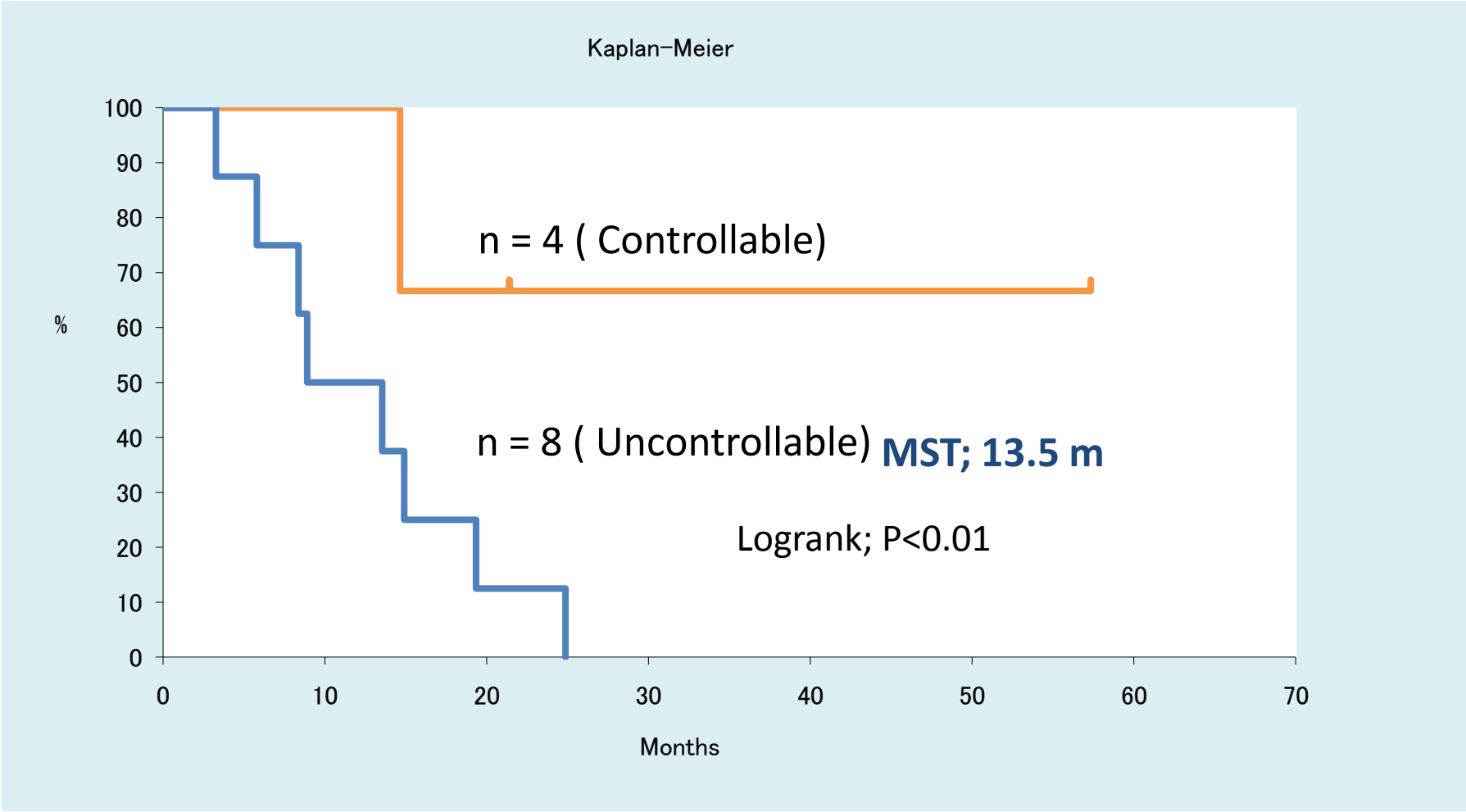
Metastasis	Number of Pts
Adrenal Grand	4
Bone	3
Seeding	2
renal	1

All cases were successfully treated by RFA

Extra-RFA


Kaplan–Meier
100
90
80
70
60
50
40
30
20
10
0
%
MST ; 14.6 m
n = 12
0
10
20
30
40
50
60
70
months

Extra-RFA stratifying under controlled/not in the liver



Complication, Efficacy by CT

	Extra-RFA N = 12	Hepatic- RFA N = 251
Complication	0	4 (1.6%)
Efficacy by CT	95%	100%

Conclusion

RFA of extrahepatic neoplasms is a promising alternative treatment which could be considered for patients who are not suitable for surgery.

Results

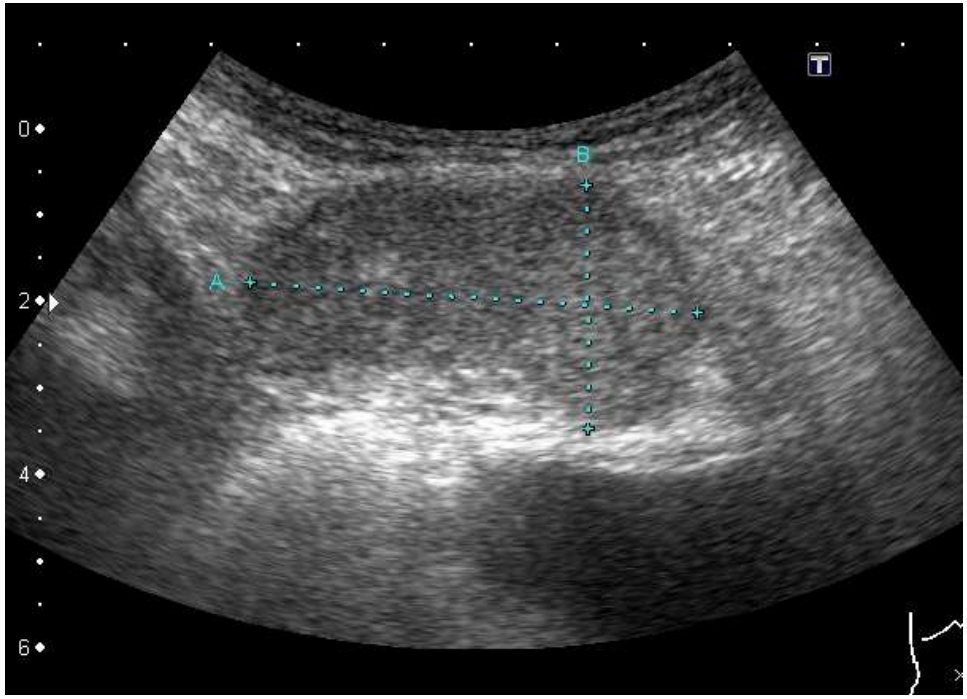
- ; The average follow up was 12 months. In 12 tumors (100%), total absence of contrast enhancement was obtained after initial RFA. All the patients were done with successful. There were no complications. Local recurrence was observed in 3 lesions (25%) out of 12 lesions.
- Median survival time was 9 months after RFA. The cause of death was liver failure due to progression of hepatic neoplasms, not progression of extrahepatic neoplasms

結語

- 高度進行肝細胞癌に合併した頭蓋骨、顎骨転移に対してRFAを施行し、良好な経過を得た症例を経験した。
- 放射線治療難治の骨転移に対しては頭蓋骨、顎骨などの危険な部位にあってもRFAは施行できうると考えられた。

結語

- 麻酔に伴う合併症はなかった。全例RFA時の苦痛を訴えることはなく、目的の治療を完遂できた。術後もRFA時の記憶はなかった。循環動態も安定しており、気管内挿管に切り替えることもなかった。術後の合併症もなく、5段階評価アンケートによる被検者の苦痛度、術者側のストレスも極めて良好であった。
- 特に大型肝癌、多発病変、肝外病変の治療の際に、Sedation 下のRFAは極めて安全、有用である。


T
0
2
4
6
A
B

66歳　男性

主訴:　頭重感、頭部圧迫感

現病歴:

07　5月　初発B-HCC。東大でRFA　2回。
08　3月　より多発再発で当院でTAE　3回
08　11月　TAE failureでIFN/5FU開始。5kurでSD維持。
10　2　骨盤内骨転移に東大でRTx。
　　3　左頭頂骨転移にRTX　40Gy。
　　4　ネクサバール400mg開始。
　　8　上記　主訴出現し、左頭頂骨転移の増大あり
　　RFA目的入院。


KYOUNDUH HOSPITAL - OPE - Abdomen 3:22:22
UAGV-030A 85°
0
5
10
6C1
diffT5.0
22 fps
HDD:21% Free
Raw Memory:#0(0%)
A2

Propofol intravenous injection

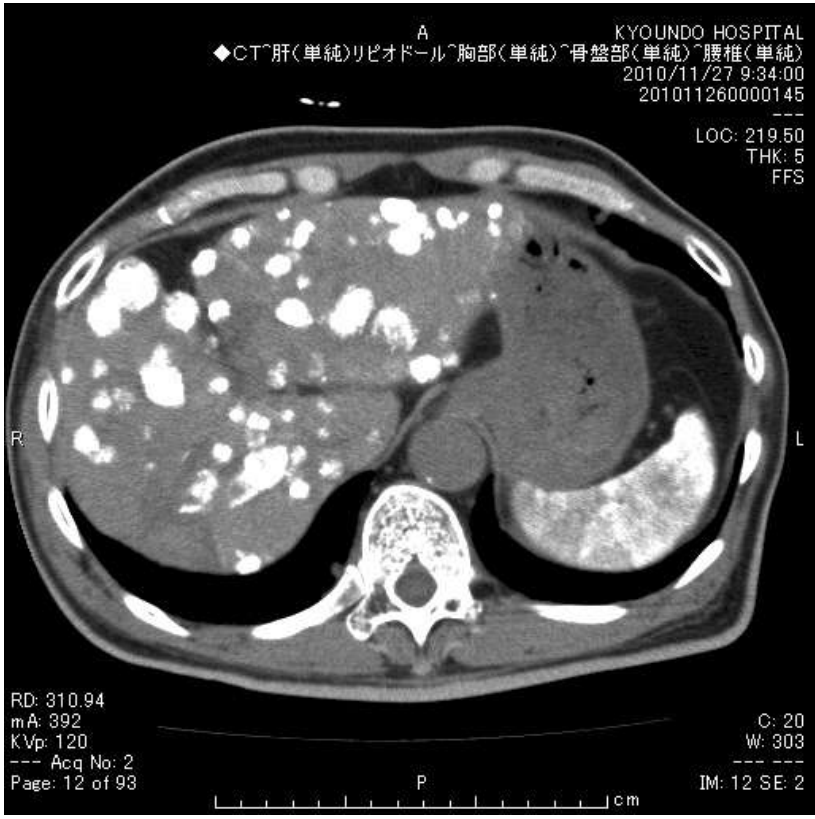
T-Bil	0.7	mg/dl
AST	49	IU/L
ALT	40	IU/L
γGTP	124	IU/L
ALB	4.3	g/dl

AFP 5.9
L3(%) 0.5
DCP 70400

Plt 17.4x10^4μ/l

PT 92%

HBs Ag (+)
HCV Ab (-)



RFA for Extrahepatic Meta.
12Pts / 5y

Metastasis	Number of Pts
Adrenal Grand	**4**
Bone	**3**
Spleen	**2**
Seeding	**2**
renal	**1**

Feasibility of RFA for bone Meta

	Curability	Painless	cost	Hospital days
Radiation	△	○	**$ 2,500**	**28 d**
RFA	○	○	**$4,000 (insurance -)**	**7 d**

Methods

- From 2010 to 2012, 12 radiofrequency ablation(RFA) in 10 selected patients with extrahepatic neoplasms were perfomed.
- Extrahepatic neoplasms were adrenal grand metastases in 2 patients, abdominal seeding in 2 patients, splenic metastases in 2 patients, bone metastases in 3 patients
- renal metastases in 1 patients.
- The patients had contraindications to surgery. The average tumor size was 2.5 cm in diameter with mean age of 68 years.
- RFA were performed based on percutaneous under ultrasound guidance with monopolar Cool-tip RFA needle.
- The procedure was performed under sedation using propofol or general anesthesia. The absence of contrast enhanced CT was considered to be a successful treatment.


0
2
4
6
8
6C1
h3.5
15 fps
MI:0.25
2DG
DR
50
F:40
00:23
AP 2%
Replenish mode
IP4


UAGV-030A 70°
0
2
4
6
6C1
diffT5.0
22 fps
MI:1.5
2DG
DR
60
A 2 IP4