

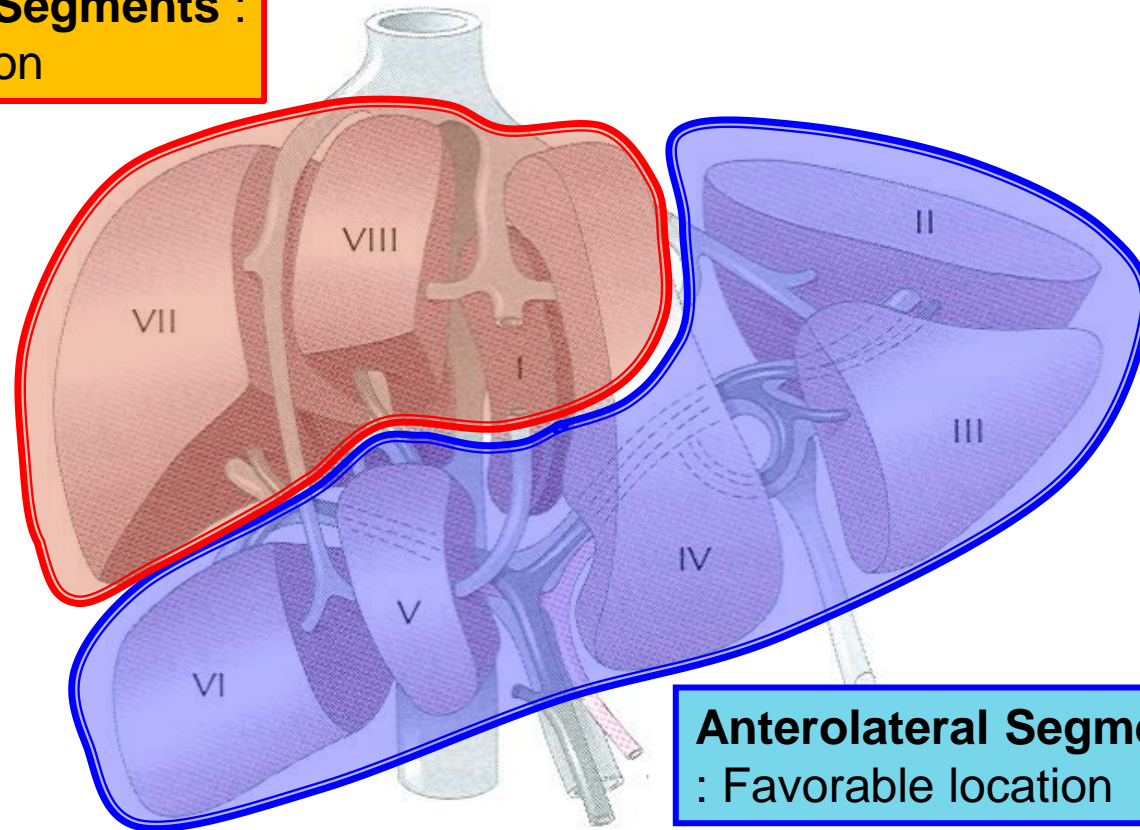
Transthoracic Approach for tumors located in Postero-Superior segments of the liver

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Current limitation on location of HCC

Posterosuperior Segments :
Unfavorable location



Anterolateral Segments
: Favorable location

Experiences of laparoscopic liver resection including lesions in the posterosuperior segments of the liver

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Table 2 Intraoperative and postoperative results for both groups

	AL group (<i>n</i> = 92)	PS group (<i>n</i> = 36)	<i>p</i> value
Conversion: <i>n</i> (%)	2 (2.2)	2 (5.6)	0.323
Operative time (min)	258.5 ± 145.4	331.4 ± 125.6	<u>0.009</u>
Blood loss (ml)	517.0 ± 448.1	659.1 ± 460.4	0.124
Intraoperative transfusion: <i>n</i> (%)	23 (25.0)	17 (47.2)	<u>0.015</u>
Postoperative hospital stay (days)	10.5 ± 6.5	12.0 ± 10.3	0.345
Morbidity: <i>n</i> (%)	15 (16.3)	7 (19.4)	0.733

AL, anterolateral; PS, posterosuperior

PS group > AL group : intraoperative transfusion ↑ & operation time ↑

Background

Laparoscopic liver resection in the **posterior** and **superior** parts of the liver

- ✓ Difficult due to
 - inadequate exposure (limited visualization)
 - poor operative field
- ✓ Difficulty with parenchymal dissection
 - difficulty controlling bleeding
 - inappropriate dissection plane
- **Transthoracic approach** for treatment in selected patients with lesions located in the **postero-superior** segments of the liver can be an option to overcome these difficulties.

Purpose

To evaluate the **feasibility** and **safety** of **transthoracic approach** for lesions located in the **postero-superior** segments of the liver

Cases

Variables	1	2	3	4
Sex	M	M	M	F
Age (years)	47	53	59	45
OP History	Lapa. Rt. Hemihepatectomy LDLT			s/p TAH & BSO
Diagnosis	HCC	Lung ca. liver metastasis	Colon ca. liver metastasis	Breast ca. liver metastasis
Location	S8	S8	S7	S7
Treatment	RFA	Segmentectomy	Tumorectomy with Pringle maneuver	Tumorectomy

Operation procedure (1)

: Transthoracic resection

➤ Position

- lithotomy position
- 30° reverse Trendelenburg position
- right side up

➤ Trocar location

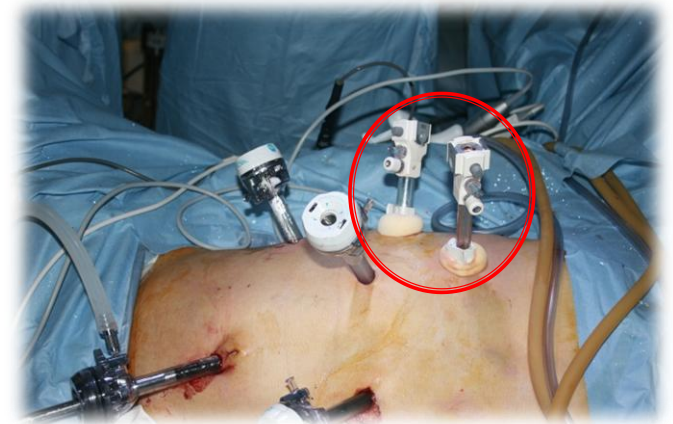
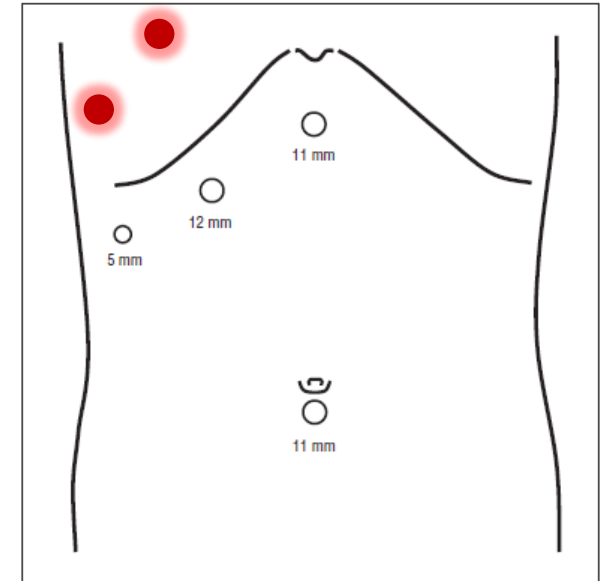
- additional two transthoracic ports were inserted at 7th intercostal space(ICS) and 9th ICS
- pneumoperitoneum was created & usual transabdominal approach was done

➤ Laparoscopic Pringle's maneuver

- 1 patient for reducing blood loss

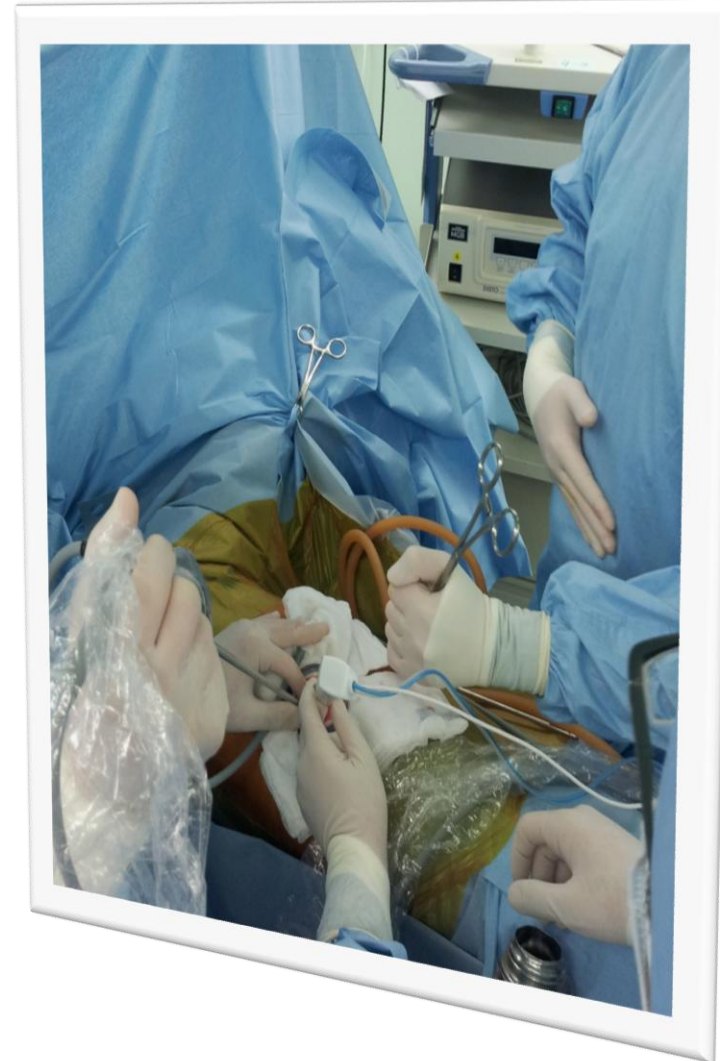
➤ Chest tube was not routinely inserted

- post op CXR check



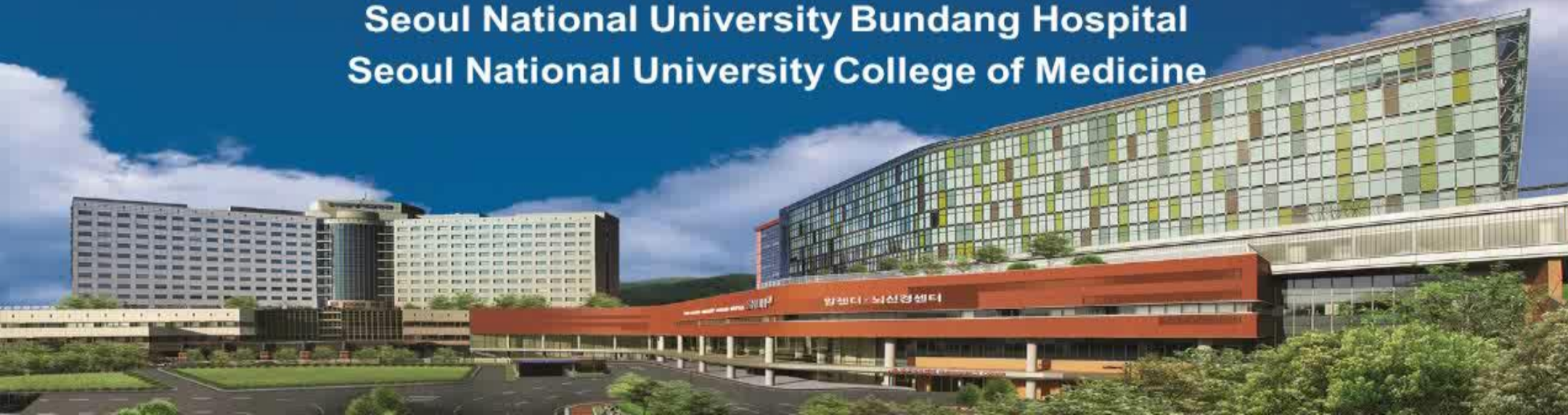
Operative procedure (2) : Transthoracic RFA

- For transthoracic RFA
 - about 3cm of single incision was done at 7th ICS
 - covered wound protector
 - ablation was performed under ultrasonography through the intact diaphragm
 - fibrin glue sealant was applied
 - chest tube was inserted



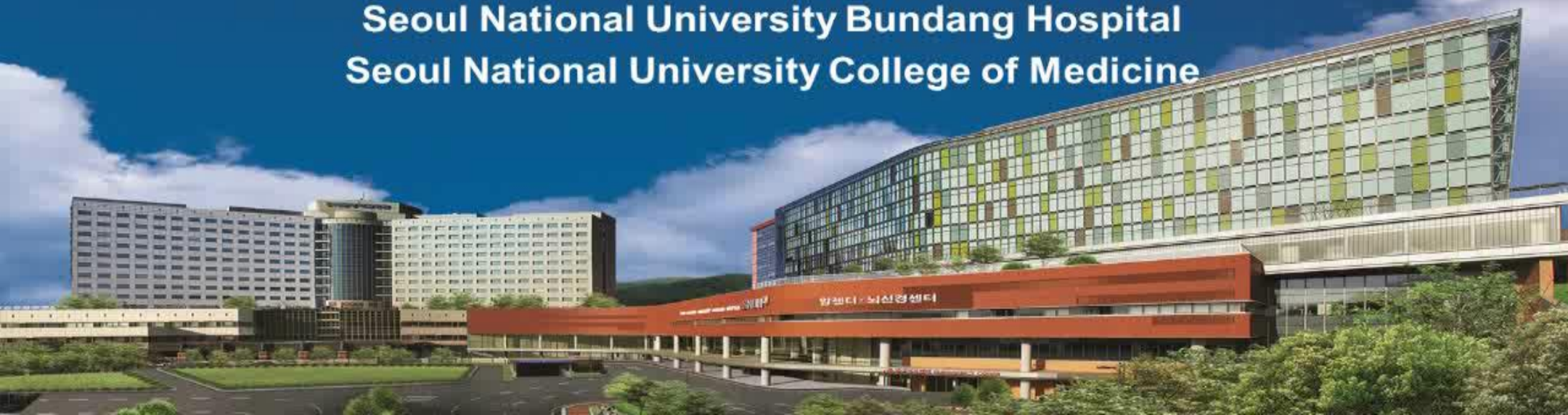
Transthoracic Approach for tumors located in Postero-Superior segments of the liver (Segmentectomy)

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Transthoracic Approach for tumors located in Postero-Superior segments of the liver (RFA)

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Results

	Resection	RFA
Operation time (min)*	246 (120 ~ 300)	170
Intraoperative blood loss (ml)*	180 (100 ~ 320)	0
Intraoperative transfusion (n)	no	no
Postoperative hospital stay (days)*	6 (5 ~ 7)	4
Tumor-free margin (mm)*	6 (3 ~ 10)	uncheckable
Complications	no	no
Recurrence	no	no

* Median (range)

Conclusion

Transthoracic approach (segmentectomy or RFA) could be an **effective therapeutic option** in selected patients with tumors located in **postero-superior** segments of the liver.

“Thank you for your attention”

