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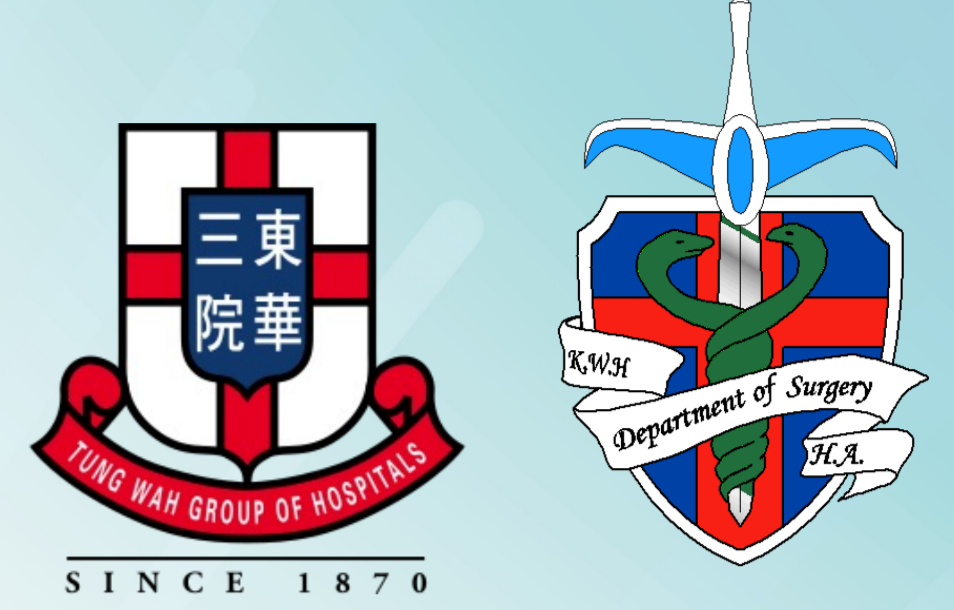
Evaluation of percutaneous ablative therapy for renal tumors

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Objectives

Percutaneous ablation therapy for small renal tumors including radiofrequency ablation (RFA) and cryoablation has been evaluated in recent years.

There is increased use of ablative treatment especially in patients not eligible or refuse surgical management. In comparison to the mainstay treatment of partial nephrectomy, it is less invasive and can be performed under local anesthesia.

This study aims to examine the effects and complications associated with RFA and cryoablation for small renal tumors.

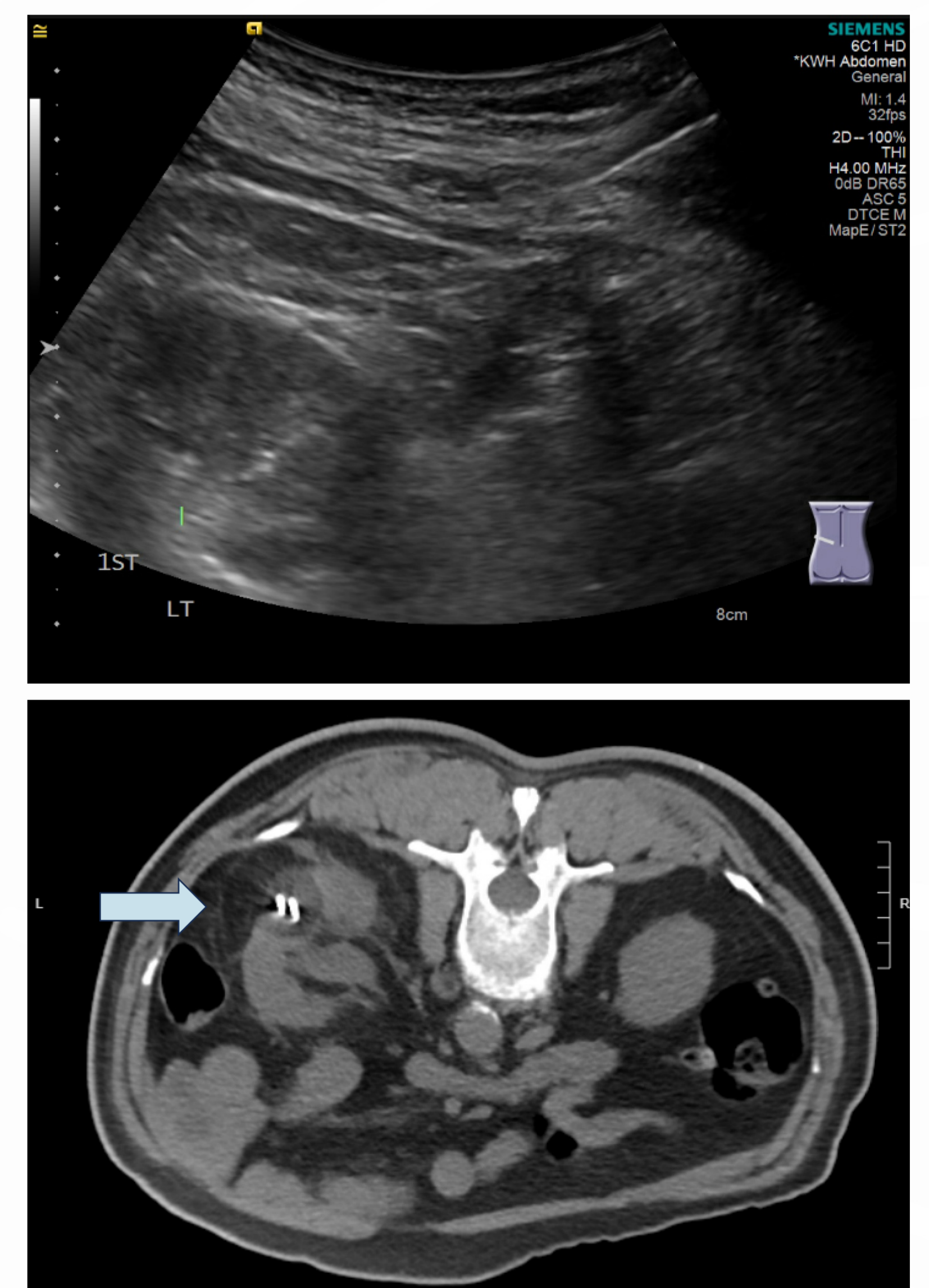
Patient & Methods

Retrospective comparative study

Reviewing patients treated with ablation therapy between June 2021 to July 2023 in Kwong Wah Hospital

Evaluation of

- Patients' demographic details and baseline tumor characteristics
- Postprocedural outcomes
- Presence of urological and nonurological complications
 - Urological
 - Postprocedural hematoma
 - Hematuria
 - Ureteral blockage
 - Ureteral stricture
 - Urine leak
 - UTI
 - Nonurological
 - Bowel injury / Colonephric fistula
 - Pneumothorax
 - Nerve injury
 - Skin burn
 - Tract seeding
 - Device failure



Results

18 lesions in 17 patients

- Mean age 65.75 ± 11.11 years
- 9 male : 8 female

RENAL score

- Ranging from 5 to 10
- Mean 7.55 ± 1.54

59% patients underwent same session biopsy

- 40% Malignant
- 30% Insufficient for diagnosis
- 30% Benign

Parameters	RFA (n = 10)	Cryoablation (n = 8)	t/χ ²	p
Age	65.70 (9.04)	64.88 (14.70)	.142	.44
Gender (M:F)	6:4	4:4	.139	.35
Lesion size	16.70 (6.11)	23.63 (4.21)	-2.72	.08
RENAL score	6.50 (1.08)	8.75 (1.49)	-3.72*	<.01
	7.50 (1.70)			
Length of Hospital Stay	2.90 (3.60)	2.38 (.74)	.40	.35
Complications	2.5%	6.2%	-1.21	.12
- Postprocedural hematoma formation	3	1	.86	.20
- Urinary tract infection	1	2	-.82	.21
Reablation	1	1	-1.72	.052

*p<.05 **p<.01

Conclusion

Ablation therapy shows to be a safe alternative method for treatment of small renal tumors

Additional studies in extended period are required to evaluate its long-term oncological effectiveness