



RETROPERITONEOSCOPIC RENAL NEEDLE BIOPSY FOR UNUSUAL STATUS PATIENTS

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Objectives:

We report the technique and outcomes of retroperitoneoscopic renal needle biopsy (RPNB) for patients in whom percutaneous renal needle biopsy is contraindicated.

Patients :

We performed RPNB in 63 patients (30 males and 33 females, mean age 47 years, range 33–77).

Procedure:

The kidney is approached via a laparoscopic retroperitoneal route (retroperitoneoscopy) with a 2-port technique under the 12th rib in the flank position. The lower pole of the kidney is exposed using blunt dissection of the fat tissue around the kidney. Two to three needle (18G) biopsies through the port were performed and hemostasis is achieved by pressing on the insertion point of the needle under direct vision.

Indication for RPNB

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Bleeding disorder/Anticoagulant med.	16
Obesity	20
Obesity + Bleeding disorder	4
Difficulty in keeping prone position	10
Solitary kidney (pelvic kidney)	10
Multiple renal cysts	5

Results:

- left kidney 58
- right kidney 5
- obtained glomeruli: 4–30 (14.1)
- total blood loss: 5.0ml
- surgical time: 77 min.
- Complication: retroperitoneal bleeding 1 case



1) Full lateral position, 2-port set



2) Under pneumoretroperitoneum. Lower pole of the kidney appears after dissecting lat. cone fascia



3) Lower pole of the kidney is exposed



4) Biopsy needle is proceeded to the kidney through the port



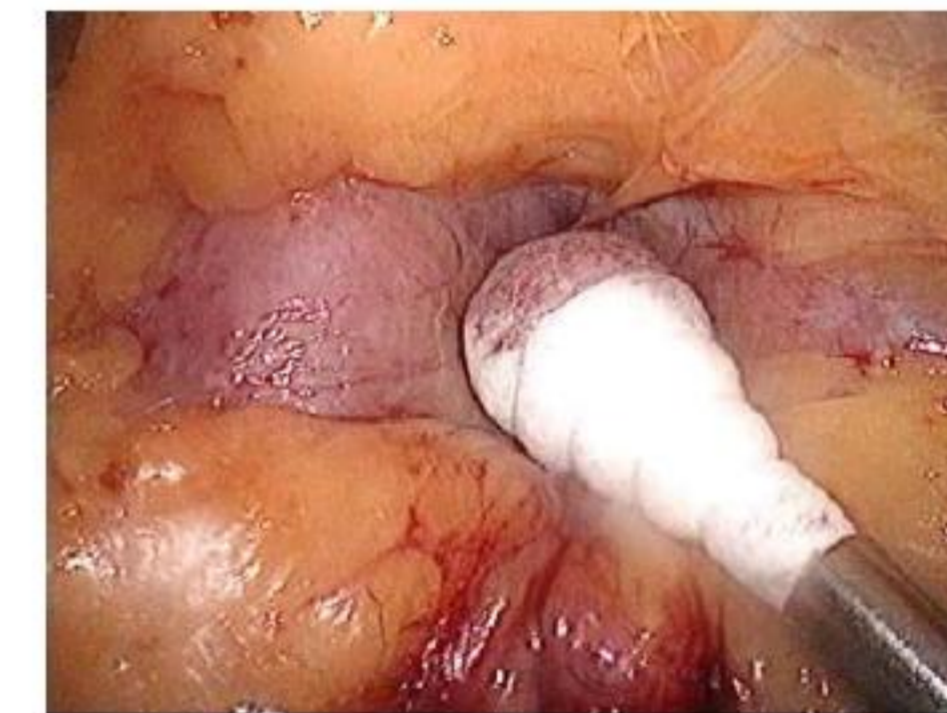
5) Biopsy needle is inserted



6) Biopsy needle is pulled out.



7) Small bleeding from the insert point



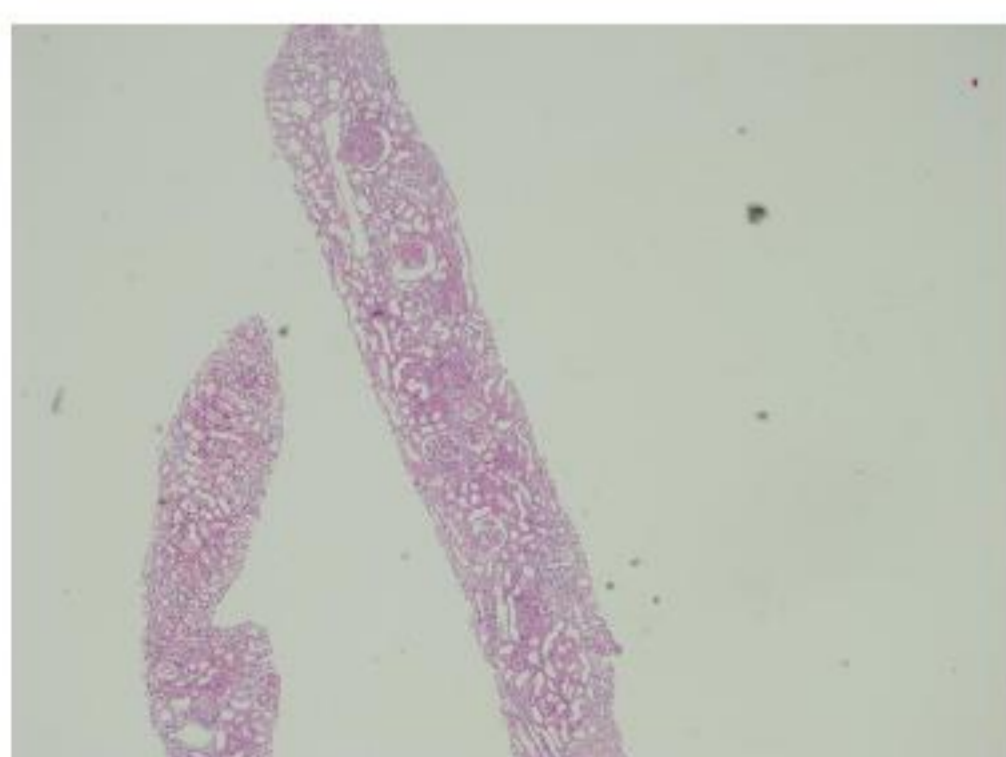
8) The insert point is pressed for a few mins.



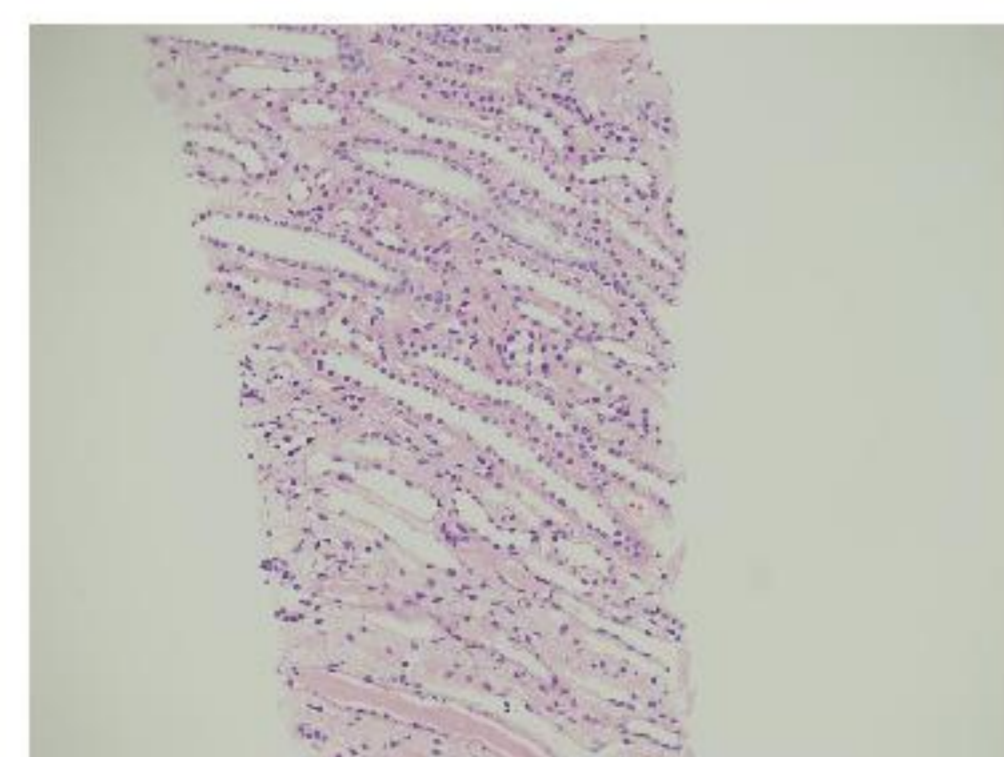
9) Hemostasis is obtained

All biopsies were successfully completed retroperitoneoscopically with sufficient cortex and medulla tissue obtained for histopathological diagnosis. The insertion point of the needle was adequately selected in each case. There were no complications, such as bleeding, hematuria, vascular injuries, infection, and renal dysfunction except postoperative retroperitoneal bleeding in one case with long-term steroid therapy. Hemostasis procedure time was within 30 minutes in all cases.

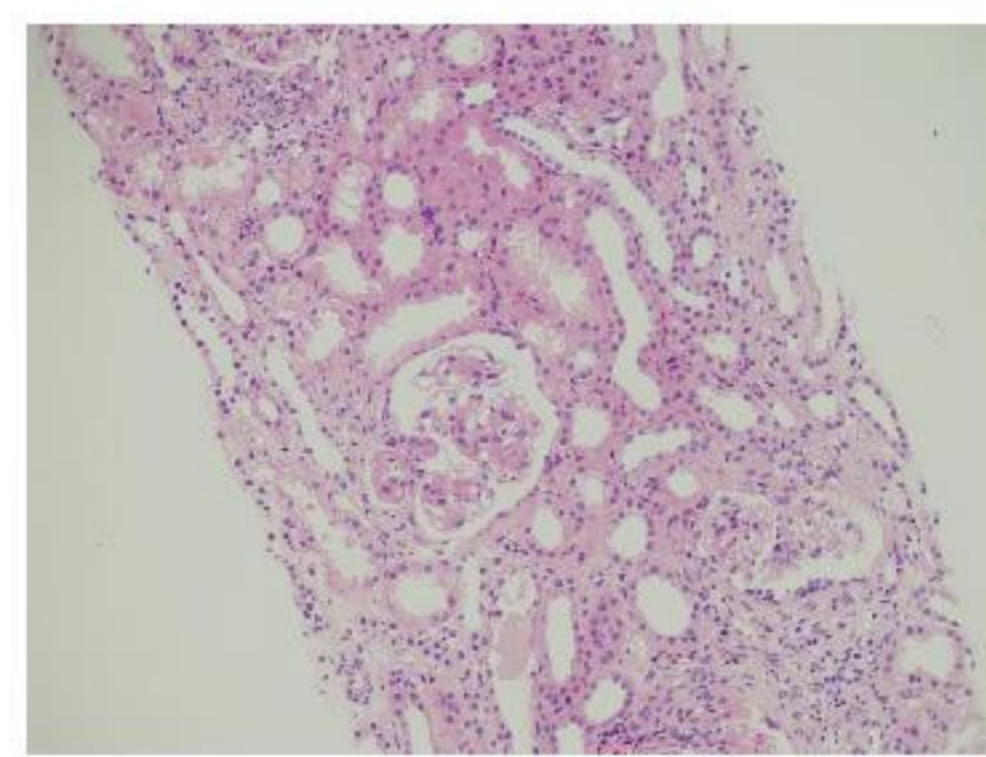
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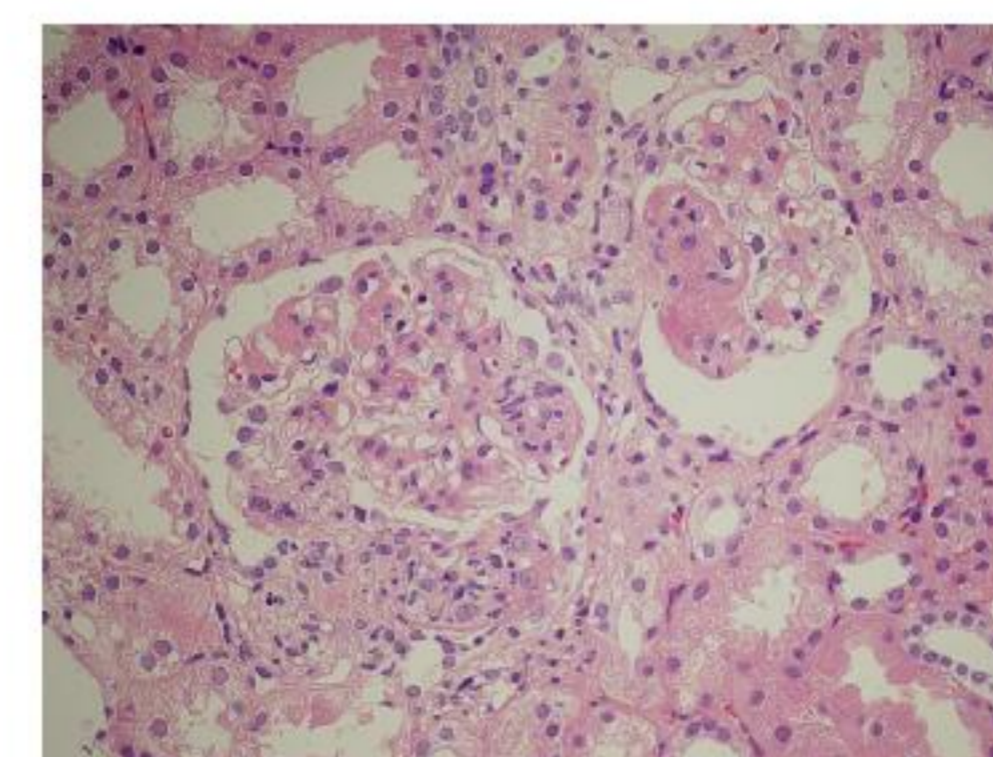
HE x40



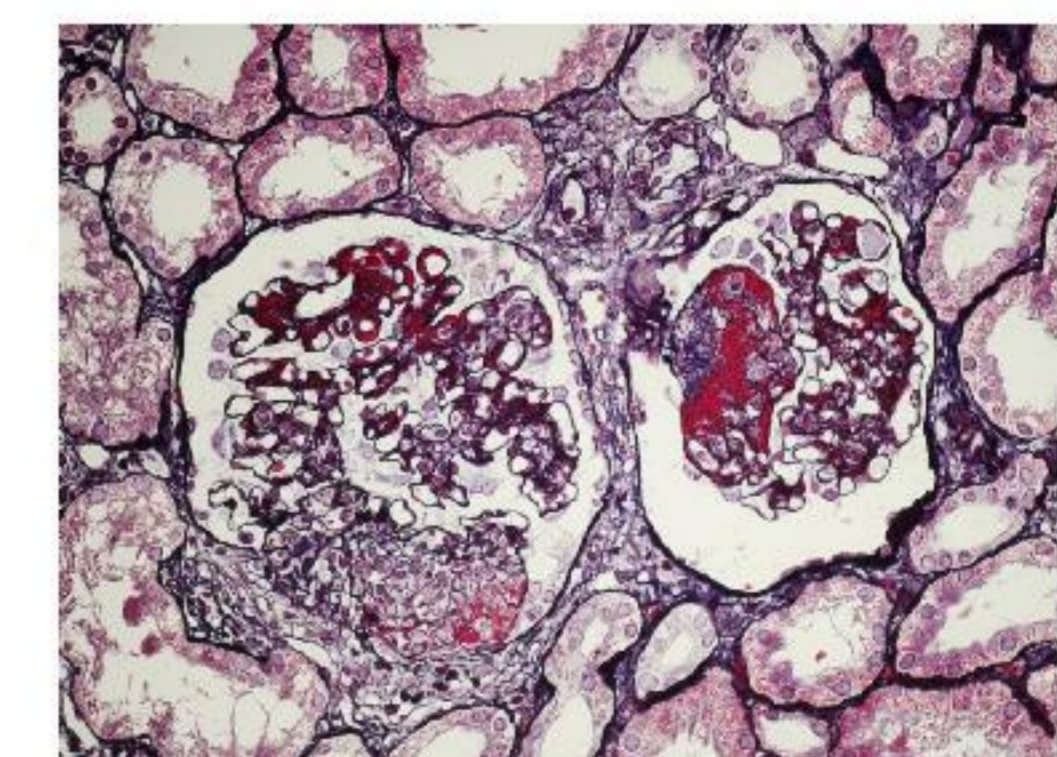
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HE x200



HE x400



PAM x400

Conclusions:

RPNB is a safe, reliable, minimally invasive alternative to open renal biopsy for patients in whom percutaneous needle biopsy is not feasible.

