

T400-Series Technical Note

Subtotal Nephrectomy Hypertension Model

Animal Preparation

Fast animal the night before surgery.
Using sterile instruments, prepare animal for aseptic surgery.

Surgical Protocol

Expose left kidney via laparotomy.

Remove top 1/3 and bottom 1/3 of left kidney (Fig. 1):

- 1) Have two pieces of gel foam cut to cover the cut surface of the kidney.
- 2) Cut off upper or lower 1/3 in one stroke and immediately cover with gel foam, exerting mild pressure.
- 3) After cutting off second pole of kidney, maintain mild pressure on gel foam pads for approximately 1 minute.

Close laparotomy.

1 week later

Perform right side nephrectomy (Fig. 2) by retroperitoneal approach .

- 1) Shave back over kidney area.
- 2) Palpate right kidney.
- 3) Make longitudinal incision 2 cm long parallel to spine and 1 cm lateral.
- 4) Blunt dissect through back muscle to expose kidney.
- 5) Ligate all vessels to right kidney and extirpate.
- 6) Close skeletal muscle with absorbable sutures.
- 7) Close skin.

Severity and speed of onset of hypertension can be increased by adding sodium to water or diet.

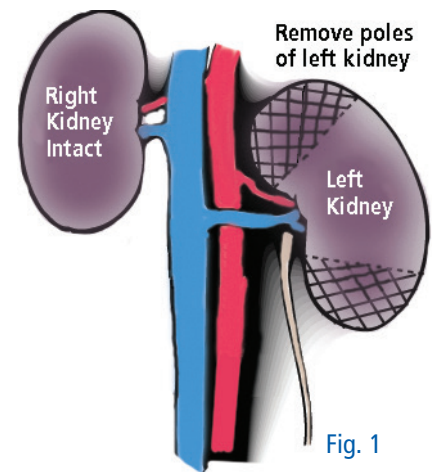


Fig. 1

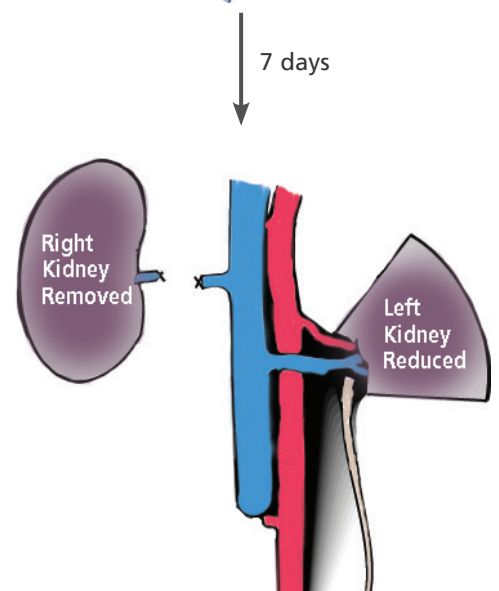


Fig. 2: Subtotal Nephrectomy