## CORRESPONDENCE



# Acute page kidney phenomenon following Chinese massage

A 46-year-old nurse of our department was admitted in hospital for a 2-month history of hypertension and low back pain. She developed an elevated blood pressure from 100/60 mmHg to 150-160/90 mmHg, accompanied a tolerable low back pain on the left side. The suggested ultrasonography showed a giant mass surrounding the left kidney. Contrast-enhanced computed tomography demonstrated a  $15 \times 10$  cm subcapsular haematoma (Figure 1A). An 8-F catheter was percutaneously inserted under sonographic guidance and about 600 mL of altered blood was aspirated. The catheter was removed 1 week later. Computed tomography scan revealed a diminishing haematoma 3 months later (Figure 1B). The back pain went away completely and she had well-controlled blood pressure levels.

No abnormality in her kidneys was found by ultrasonography during a routine health examination 4 months before the massage therapy. She began to feel back pain after the massage and experienced a progressive elevation of blood pressure. She had a slender figure with a body mass index (BMI) less than 18.0, so we reasoned the renal haematoma might be caused by the hard pressing and repeated patting on the low back during the massage process.

Page kidney phenomenon (PK) is always caused by strong renal parenchymal compression from a big subcapsular haematoma. Chinese massage is considered an effective physiological treatment for human body to relieve from fatigue, which involved tapping, kneading and rolling techniques. However, improper back pressing

and repeated patting from a non-trained masseur might cause renal haemorrhage in those people with a low BMI, and in patients using aspirin or anticoagulants.<sup>3</sup> PK always causes acute hypertension and a low back pain. If diagnosed early and the patient's condition is stable, percutaneous drainage is allowed. Surgery will be effective to manage organized subcapsular haematoma when invasive approaches had failed.<sup>4</sup>

#### **CONFLICT OF INTEREST**

The authors state that they have no Conflict of Interest.

Bo Lin<sup>1,2</sup>

Xiujun Xu<sup>1,2</sup>

Yueming Liu<sup>1,2</sup>

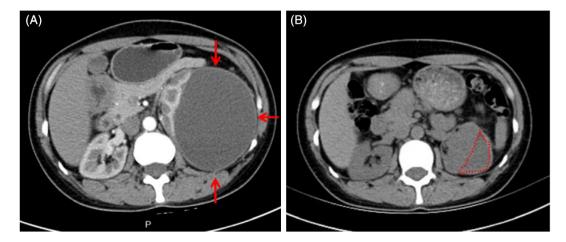
Qiang He<sup>1,2</sup>

<sup>1</sup>Department of Nephrology, Zhejiang Provincial People's Hospital, Hangzhou, China

<sup>2</sup>Department of Nephrology, People's Hospital of Hangzhou Medical College, Hangzhou, China

# Correspondence

Qiang He, Department of Nephrology, Zhejiang Provincial People's
Hospital, No. 158 Shangtang Road, Hangzhou, China.
Email: qianghe1973@126.com
DOI 10.1111/nep.13684



**FIGURE 1** Contrast-enhanced computed tomography (A) showed a giant subcapsular haematoma (arrow) of the left kidney with compressed renal parenchyma. Computed tomography (B) revealed a diminishing haematoma 3 months later (dotted line area)

#### REFERENCES

- Hori S, Tomizawa M, Maesaka F, et al. Unexpected presentation of allograft dysfunction triggered by page kidney phenomenon immediately after kidney transplantation: a case report. BMC Nephrol. 2018;19:59.
- Zhang Y, Tang S, Chen G, Liu Y. Chinese massage combined with core stability exercises for nonspecific low back pain: a randomized controlled trial. Complement Ther Med. 2015;23:1-6.
- Ernst E. The safety of massage therapy. Rheumatology (Oxford). 2003; 42:1101-1106.
- Sampathkumar K, Mukuntharajan T, Rajiv A, Anandan S. Acute page kidney phenomenon following renal allograft biopsy. *Kidney Int.* 2018; 94:1241

# Response to Letter to the Editor "Hyponatremia may be an under-recognised complication after desmopressin to reduce uremic bleeding in kidney biopsy"

Thank you very much for the comments in the letter to the Editor "Hyponatremia may be an under-recognised complication after desmopressin to reduce uremic bleeding in kidney biopsy" 2019.<sup>1</sup>

Based on results in our study<sup>2</sup> that included prospective data of renal biopsies, there were no side effects reported.

However, the protocol does not include laboratory variables as a routine. There is space to give comments if such disturbance appears. In this study, no protocol included information about hyponatremia.

The study did not discriminate between values in serum creatinine once they were above 150  $\mu$ mol/L. This level was an indication to prescribe desmopressin, subcutaneously (dose 0.3  $\mu$ g/kg) before biopsies as prophylaxis. The study included 204 native kidney biopsy episodes when desmopressin was used before the biopsy and in 372 biopsies no prophylaxis was given.

All patients undergoing native kidney biopsies are kept at the ward at least until the following day and some even for several days, including sampling of variables such as creatinine and sodium. In patients with desmopressin prophylaxis, variables such as creatinine and sodium were controlled before and 1 day after the biopsies.

The reports did not include any clinical complaint of fluid retention. However, based on previous reports we support the initiative to include follow-up blood sampling after biopsies also as routine measurements of electrolytes such as sodium, chloride, potassium and magnesium after administration of desmopressin. Besides weighing the patient before the biopsy a repeated weight in the follow-up period after the desmopressin administration may help to indicate fluid retention, besides clinical complaints such as shortness of breath or oedema. Further studies may clarify if specific risk factors will indicate the development of hyponatraemia and subsequent clinical problems.

Björn Peters

Department of Nephrology, Skaraborg Hospital, Skövde, Sweden DOI 10.1111/nep.13694

### REFERENCE

- Lim CC, Chawla M, Siow B, Choo JCJ, Lee PH, Foo M, Tan CS. Hyponatremia may be an under-recognized complication after desmopressin to reduce uremic bleeding in kidney biopsy. 2019;674.
- Peters B, Hadimeri H, Mölne J, Nasic S, Jensen G, Stegmayr B. Desmopressin (Octostim<sup>®</sup>) before a native kidney biopsy can reduce the risk for biopsy complications in patients with impaired renal function: a pilot study. Nephrology (Carlton). 2018;23:366-370.

Copyright of Nephrology is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.