Page Kidney by Bilateral Hematomas: A Systematic Review of the Page Kidney Phenomenon Following Trauma

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Introduction: Page kidney or the page phenomenon is a rare cause of hypertension secondary to direct parenchyma compression by subcapsular collection such as hematoma or urinoma. While the most common cause of page kidney is trauma, there is limited research on the surgical management of page kidney.

Methods: We performed a search of the PubMed, Embase, and JBI Evidence-based Practice (EBP) Database for “Page Kidney” in the setting of trauma on March 21, 2023. This search yielded 119 abstracts. After a two-person review of these abstracts, we included 31 in our systematic review.

Results: We present a 54-year-old male, unrestrained driver in a motor vehicle accident with bilateral perinephric hematomas, a left parietal scalp laceration, and right 9-12 rib fractures. His tertiary exam was negative; however, he continued to have worsening hypertension and acute kidney injury and eventually developed anuria and blood loss anemia. On hospital day four, imaging revealed worsening bilateral zone 2 hematomas. Therefore, our trauma team performed an exploratory laparotomy and evacuation of the hematomas by bilateral Gerota’s Fascia release with a planned takeback. Postoperatively the patient’s symptoms resolved, and the bleeding stabilized, but ultimately required hemodialysis due to acute tubular necrosis. We deemed him safe for discharge on postoperative day seven, and a two-week follow-up demonstrated a return of urinary function.

Conclusion: We present the first case report of traumatic page kidney resolution by bilateral Gerota’s Fascia release, as well as a systematic review of the presentation and management of page kidney. We recommend early recognition of this phenomenon in the trauma setting to prevent morbidity related to renal replacement therapy.

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