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Platinum Opinion

Urolithiasis in the COVID Era: An Opportunity to Reassess Management Strategies

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During the initial phase of the COVID-19 pandemic, telemedicine and other innovative means emerged as ways to provide remote care for patients. Yet the incidence of many common conditions requiring in-person care is probably unaffected by the ongoing contagion. Nonetheless, patients with such ailments have become scarce in physician offices and emergency departments (EDs) worldwide, an observation highlighted in the urology community by the management of stone disease.

In Dallas, we observed a large reduction in the number of urology consultation requests from the ED for stone disease at both our private academic and county hospitals while sheltering in place. To ensure that this did not simply reflect a reduction in urology consultations and increased ED-determined management, we reviewed the number of ED visits with diagnosis codes for kidney or ureteral calculus over a 6-wk span during the height of sheltering (March 15th to April 26th, 2020) and compared this to the number of ED visits during the same time period in 2019. We found a 38% reduction in visits for stones at our private hospital (20 in 2020 vs 34 in 2019) and a 44% reduction at our county hospital (83 in 2020 vs 147 in 2019; unpublished data). While it is possible that this reduction reflects less active stone disease in light of more exercise, greater fluid intake, and a healthier diet (as a result of home cooking), it is more likely that patients chose to manage their painful stone events independently at home.

This begets two important questions. First, are we overtreating our patients? While the opioid epidemic in the USA and Canada is well documented, recent literature has shown increased opioid use and trends for misuse in Europe as well [1]. Despite the demonstrable superiority of nonsteroidal anti-inflammatory drugs (NSAIDs) over opioids for renal colic [2], opioid prescriptions for renal

colic remain common, with more than 50% of patients receiving opioids before stone surgery [3]. Furthermore, persistent opiate use after a urolithiasis diagnosis was identified in 9% of opioid-naïve patients in a population-based analysis [4]. Efforts are under way to eliminate narcotics from perioperative and postoperative protocols in stone disease [5], but stopping this cycle of abuse begins before surgery with acute stone events.

On the basis of our data, it appears that patients are choosing to manage their symptoms at home without narcotics rather than risk potential COVID-19 exposure. Notably, we did not prescribe opioids more frequently during this time to avoid the need for ED visits. The success with which patients have been able to avoid acute care facilities and the need for prescription pain medications should compel those who continue to routinely prescribe opiates that non-narcotic management is possible. However, this is not to infer that we are not sympathetic to the severe and crippling pain of renal colic, or that no patient should ever be prescribed opiates for stone-related pain. Rather, we suggest that a higher threshold be set for prescribing these high-risk medications.

While the management of renal colic and post-surgical pain without narcotics was addressed even before the pandemic, it remains to be seen whether patients will accept a paradigm shift after many years of a very different standard. In the United States (US), mass opiate use has helped to foster a belief that there is always a stronger analgesic available. Furthermore, patients have come to expect complete pain relief as a patient right. As a service industry, physicians in the United States are already accustomed to “doctor shopping”, which can even occur postoperatively when seeking narcotics for post-surgical discomfort [6]. Thus, if we raise the threshold for opioid

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prescriptions based on patient safety, will patients simply continue searching until they find someone willing to dispense these medications? This underscores the responsibility of all physicians to set realistic expectations for pain management in stone patients and to provide effective and alternate means of analgesia.

The second question raised by this pandemic is whether we have been overzealous in proceeding with surgery in patients with ureteral stones. Hippocrates opined, “I will not cut for stone, even for patients in whom the disease is manifest”. While established guidelines for stone management do not specify an upper limit for the duration of a trial of passage for ureteral stones, 6 wk is often recommended based on historical single-institution series showing ~40 d for passage of 95% of 2–6-mm stones [7] and mouse models showing irreversible renal injury after 6 wk of obstruction [8]. Yet, persistent high-grade ureteral obstruction from a stone during this span is relatively uncommon. In the era of medial expulsive therapy (MET), should we allow a longer interval of observation and trial passage?

Although the utility of MET in facilitating spontaneous stone passage is hotly debated, those who acknowledge its benefit generally agree that only patients with larger stones (eg, between 5 and 10 mm in diameter) in the distal ureter are likely to benefit from MET [9]. However, the occurrence of stone migration, without expulsion, noted at the time of surgery has not been quantified (eg, stone movement from the proximal to the distal ureter by the time of surgery). The benefit of MET in moving stones to a more convenient, easier-to-treat location has not been established. Finally, while the risk of significant ureteral injury is low (<1%) in patients undergoing ureteroscopy [10], there is still a risk. Thus, are we jumping the gun by treating patients surgically who might, with time and possibly pharmacotherapy, pass their stones?

As the world begins to reopen, the long-term sequelae of COVID-related delays in stone surgery will begin to be realized. In many ways, the time is ripe to reassess the natural history of stones and reconsider many other aspects of our care for these patients. It is our hope that both patients and clinicians can learn during these unfortunate

times and use the knowledge gained to reshape expectations and treatment paradigms accordingly. George Santayana once said, “Those who cannot remember the past are condemned to repeat it”. Not learning in these moments will doom us to simply perpetuate what has always been done.

Conflicts of interest: The authors have nothing to disclose.

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