

Pathophysiology Case - Renal Case #1

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History

A 48-year-old white male presents to the emergency room with unremitting right flank pain. He denies dysuria or fever. He does report significant nausea without vomiting. He states that he never experienced anything like this before. On examination, he was afebrile, and his blood pressure was 160/80 with a pulse rate of 110/min. He is writhing on the gurney, unable to find a comfortable position. His right flank is tender to palpation, and his abdominal examination is non-contributory. Urinalysis is significant for +1 blood, and microscopy reveals 10-20 red blood cells per high-power field. Nephrolithiasis is suspected, and the patient is intravenously hydrated and given pain medication which some temporary relief.

Questions

1. What is the most likely cause of this patient's renal stone disease?

2. Why is this disorder painful?

3. Are there any risk factors to kidney stones?

4. How is it normally treated?

5. Describe your discharge instructions to this patient, reflecting on the pathogenesis of the stone disease.
