



# A Rare Case of McKittrick Wheelock Syndrome

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## Introduction

McKittrick Wheelock Syndrome (MWS) is a rare disorder characterized by distal colorectal tumors, most commonly benign secretory villous adenoma leading to secretory diarrhea with electrolyte depletion syndrome. Patients present with volume depletion, severe electrolyte derangement, specifically hyponatremia and hypokalemia, along with acute kidney injury (AKI). We present a rare case of an elderly woman with severe electrolyte derangement in the setting of MWS.

## Case Description

71-year-old woman with history of 4 months of watery diarrhea, fatigue, and anorexia presented after a syncopal episode. Labs notable for Na 114 mEq/L, K 2.2 mEq/L, WBC 23.5K, and Cr 2.91 mg/dL. Stool electrolytes resulted in stool osmotic gap 48 mOsm/kg consistent with secretory diarrhea. Of note, patient was hospitalized 3 times in the past 2 months for hyponatremia, hypokalemia, and AKI requiring temporary dialysis secondary to profuse diarrhea.

A colonoscopy revealed a large rectal polypoid lesion with pathology consistent with a tubulovillous adenoma (Figure A). She had aggressive electrolyte and fluid repletion with a robot assisted abdominoperineal resection. Subsequently, noted to have resolution of her symptoms and complete electrolyte correction upon follow up (Table 1).

**Table 1.** Electrolytes: Comparison of initial admission vs. post-surgical resection

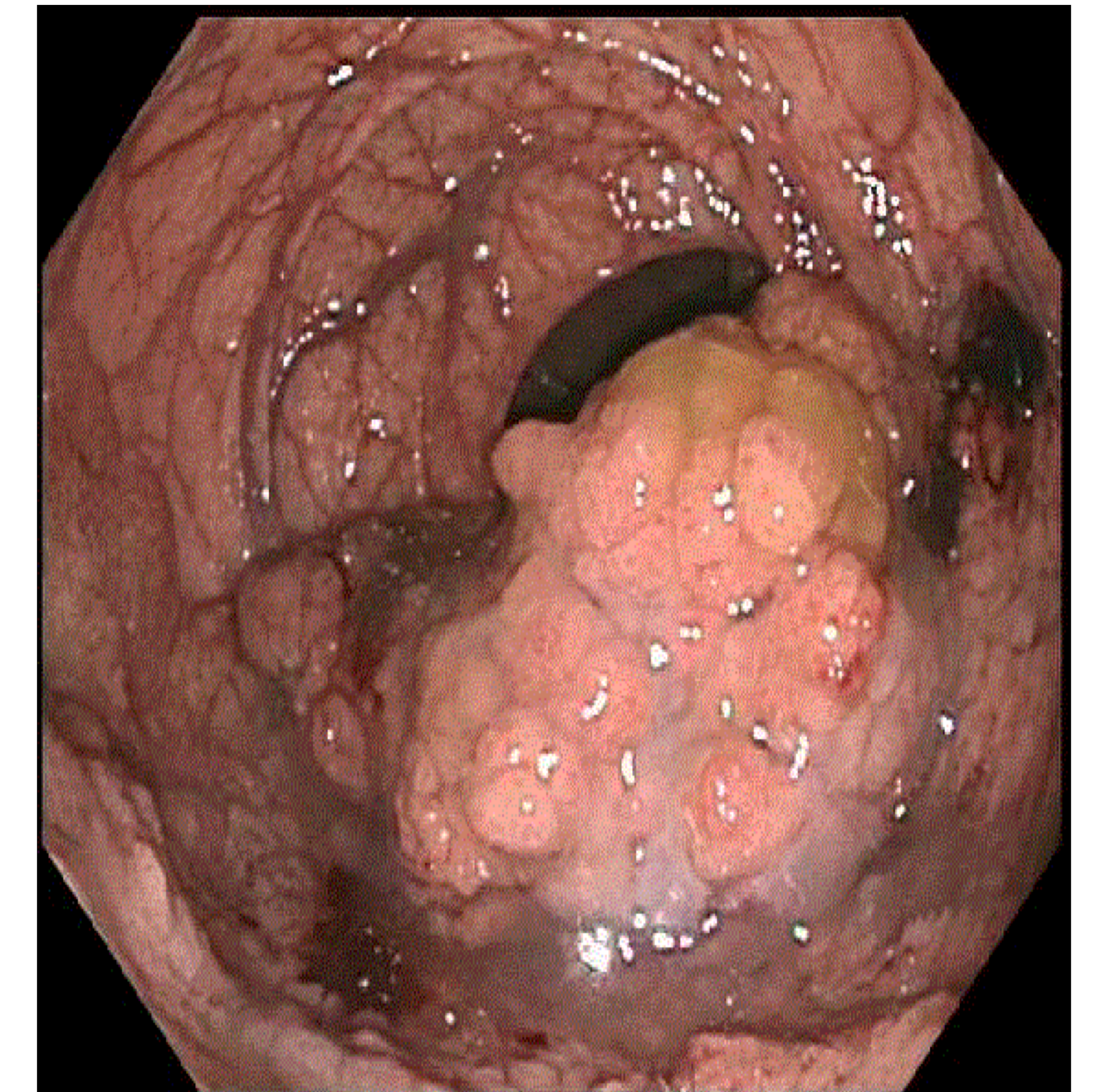
Electrolytes	Initial Admission	Post-surgical resection
Na+	114	137
K+	2.2	4.8
Cl-	79	106
Creatinine	2.91	1.06

## Discussion

Villous adenomas, normally a benign condition, can present with a life-threatening electrolyte derangements and volume depletion which makes the ability to diagnose and adequately treat MWS critical. Patients typically have multiple admissions with watery or mucous diarrhea, nausea, and vomiting. Labs significant for hyponatremia, hypokalemia, AKI, and leukocytosis. The tumors are large and often past the splenic flexure and low in the rectum, therefore flexible sigmoidoscopy can be reliably used rather than colonoscopy, which often delays diagnosis due to patients' inability to prep. Treatment includes aggressive fluid and electrolyte repletion until tumor can be surgically resected. Few case reports suggest using indomethacin or octreotide as a bridge to surgery or as medical management for patients who are not surgical candidates. However, patients who are managed medically have a mortality rate up to ~61-100%. Surgical management definitively resolves symptoms, although minimally invasive options are being explored.

A high index of suspicion and a systematic approach is critical to diagnose and provide life-saving treatment for MWS patients.

**Figure A.** Rectal villous adenoma.



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## References

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