

McKittrick-Wheelock Syndrome: A Rare Occasion in a Young Patient

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1. Abstract

McKittrick-Wheelock syndrome is a fatal and life-threatening diagnosis if no intervention is taken on time. It is due to a large distal colon polyp that secretes body salts including sodium and potassium and thus, causing severe diarrhea and dehydration to the patient. Clinical features of this syndrome are severe dehydration, hypokalemia, hyponatremia, lethargy and unintentional weight loss. This is a treatable disease especially by the means of multidisciplinary approach. Resection of the polyps that causing the syndrome is considered the primary treatment along with the replacement of fluids and body salts. Early intervention may prevent major organ dysfunction especially kidney failure.

2. Introduction

McKittrick-Wheelock syndrome is a rare condition where patient presents with prolonged diarrhea and lethargy due to colonic growth, commonly polypoidal. Clinical features of this syndrome includes hypokalemia, hyponatremia and metabolic acidosis. The exact mechanism is not very well known, although it has been postulated that hypersecretion of water and electrolytes from the mass that causes nutrient depletion and dehydration. This syndrome is usually seen in the elderly with male preponderance. Here, we would like to highlight a case of a young female patient that presented with chronic diarrhea associated with hematochezia, electrolyte imbalance and dehydration. We found that patient had a tubular adenoma growth in her descending colon.

3. Case Report

A 25 year old lady was referred to our centre with the complaints of chronic diarrhea, lethargy with poor oral intake. Further history suggested that patient also been having blood in her stool. She

claimed that the diarrhea was intermittent and been there for the past one year. She also lost a few stones over a year. Otherwise she denies having any family history of colorectal cancer. Initial clinical examination showed that patient is thin built and pale. Digital rectal examination demonstrated no mass palpable per rectum. We proceeded with a colonoscopy the same day and found a large sessile polypoidal growth, about 40 cm from the anal verge. Otherwise the growth has no contact bleeding. A snare biopsy was taken and sent for urgent histopathological examination. The report came out as tubular adenoma with low grade dysplasia. Patient was resuscitated in the general ward and was given a pack of blood. We performed polypectomy after histopathology result of the biopsy came out. Patient was discharged home safely the following weeks (figure 1 and 2) [1-4].



Figure 1: Showing a single pedunculated polyp at the right colon

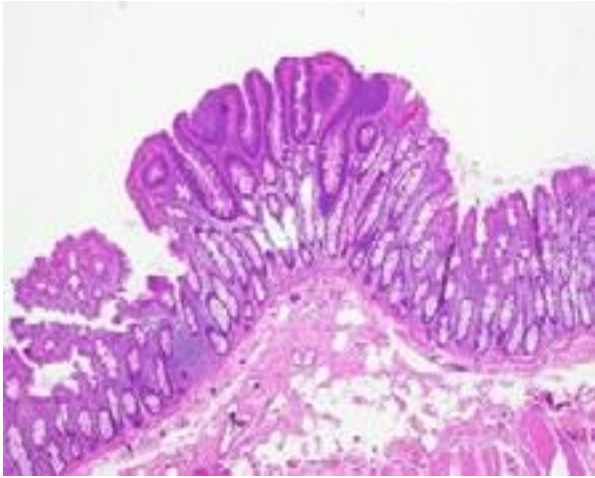


Figure 2: Histology demonstrated tubular adenomas, characterized by classical adenomatous low-grade dysplasia with pseudo stratification of elongated, hyperchromatic nuclei

4. Discussion

McKittrick-Wheelock syndrome is a constellation of abnormalities that occurred due to growth in the distal large colon. Patient usually present with dehydration, lethargy with electrolytes depletion. The condition is thought to be caused by a large benign colonic tumor, commonly polyps. A few literature review documented tubular and tubulovillous polyps as the causative agent for this syndrome. In our case report we found a large sessile tubular adenoma 40cm from the anal verge. The main pathology of the syndrome is because of hypersecretion of water and electrolytes from the growth and thus causing severe dehydration and even acute kidney injury. The mainstay of the treatment is fluid resuscitation and restoration of the electrolytes to the normal level. The offending agent, polypoidal growth should be removed either endoscopically or surgery. Some schools of thought even advocated for anterior resection in cases where the polyps were multiple and large with high grade dysplasia.

5. Conclusion

McKittrick-Wheelock syndrome is a rare syndrome that occurred in patients with benign polypoidal growth. It causes severe water and electrolytes depletion which may be detrimental for the patient. Identifying of the syndrome is crucial in order to design a proper management. Physicians should be vigilant in identifying the condition in timely manner as it is associated with a high morbidity and mortality.

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