



## History of Present Illness

38-year-old male with no significant past medical history presented to the emergency department with abdominal pain for the last 3 days. He stated the pain has been vague and dull, located in the upper middle abdomen, but has recently started progressing towards the right lower quadrant. Patient had gone to his PCP prior to arrival for this complaint and was instructed to go to the ER for further evaluation. Patient denies, nausea, vomiting, diarrhea, fever, chills and constipation.

## Physical Exam/Labs

T98.4, HR72, BP 129/85, RR18, SpO2 99%

**General:** no acute distress

**Cardiovascular:** regular rate and rhythm, normal pulses, no murmur

**Pulmonary:** no respiratory distress, normal breath sounds, no wheezing, rhonchi or rales

**Abdominal:** bowel sounds in all 4 quadrants, soft, tenderness in RLQ and LLQ. No rebound or guarding.

Labs: WBC 8.5, Hg 13.8, no significant electrolyte abnormalities

## Questions

1. What medical condition is said to follow the "Rule of 2s"?
2. What are the "Rule of 2s"?

## Answers

1. Meckel's Diverticulum
2. Meckel's Diverticulum occurs in 2% of the population, are 2 inches long, are 2 feet from the ileocecal valve, 2/3 have ectopic mucosa, and 2% become symptomatic.

## Pearls

The complication rate of Meckel's Diverticulum is about 4%; examples of such complications are intestinal obstruction, intussusception, diverticulitis and perforation, hemorrhage, and tumor formation.

Meckel's Diverticulum can be diagnosed using ultrasound, CT imaging or a Tc-Perchnetate scan. Surgical removal is the ultimate treatment of symptomatic disease.

## Case Discussion

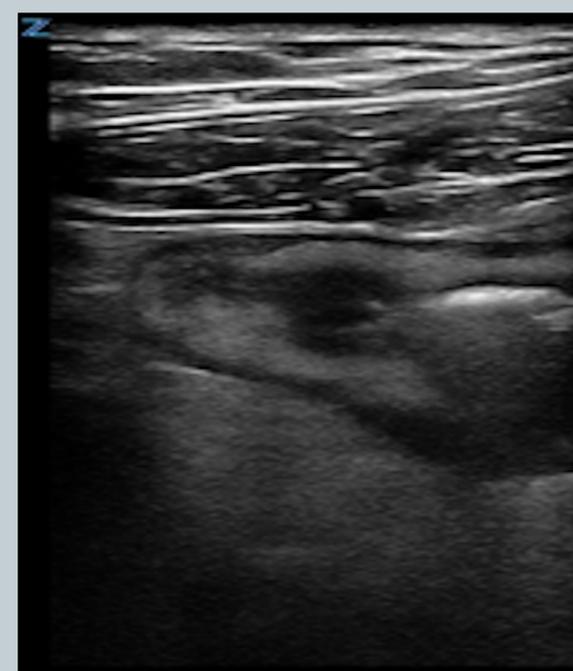
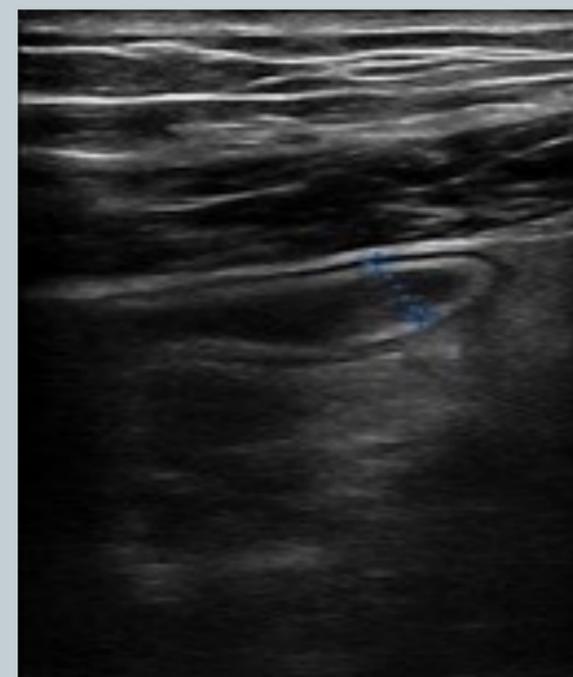
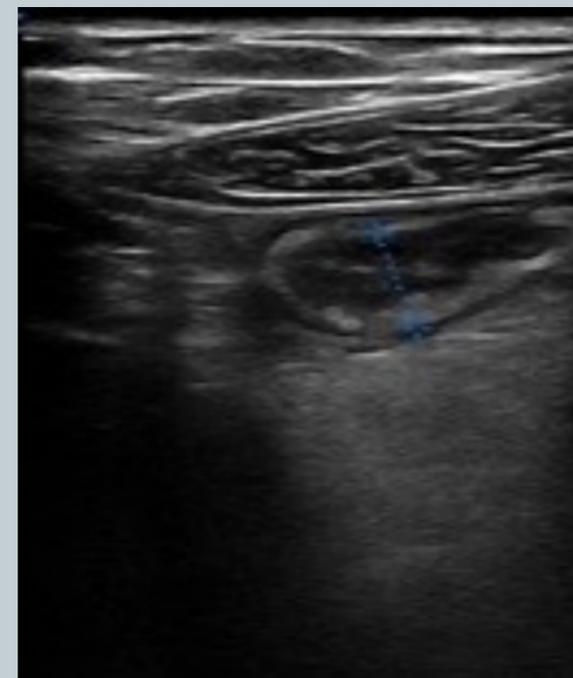
This was a middle-aged male with no chronic medical problems who had presented with abdominal pain for three days. He was initially treated with one liter of normal saline and was taken the CT scanner to rule out appendicitis. The CT showed concerns for Meckel's diverticulitis with perforation, and a normal appearing appendix.

The patient was then started on IV antibiotics and the surgical team was consulted. The patient was subsequently taken to the operating room for definitive management.

Meckel's Diverticulum is a rare diagnosis in adult patients, however, it is the most common congenital malformation of the gastrointestinal tract. Due to the rarity in adults, a symptomatic Meckel's Diverticulum is usually misdiagnosed preoperatively by clinicians. Definitive treatment is surgical, consisting of a diverticulectomy.

Meckel's Diverticulum is a true diverticulum consisting off all layers of the intestinal wall. The lining of the diverticulum may consist of purely intestinal mucosa, but often will contain ectopic mucosa, most commonly being gastric or pancreatic.

There is a small percentage of patients with a Meckel's Diverticulum that will develop complications, most frequently intestinal obstruction, intussusception, and diverticulitis and perforation.



## References

Tintinalli, J.E., Stapczynski, J.S., Ma, O.J. et al. Tintinalli's Emergency Medicine: A Comprehensive Study Guide. 8th ed. McGraw-Hill Education, New York, NY; 2015