

Surgery 101 Notes

2. Appendicitis

In this episode, **Dr. Parveen Boora** discusses **acute appendicitis**.

Topics covered include:

- the pathophysiology of the condition
- how acute appendicitis presents
- how to diagnose the disease
- treatment options
- post-op care

Overview/Introduction

In this podcast we will discuss acute appendicitis and how it presents, how to diagnose it, and the options for treatment.

What Is Appendicitis?

- inflammation of the appendix
- common, occurs in 7% of the population at some point in life
- more common in childhood and peaks in teen years
- part of differential diagnosis category for acute abdominal pain in any age group
- had a mortality rate of 75% in the late 1800's
- today's mortality rate is less than 1% due to advancements in surgical treatment and antibiotics

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Pathology of Acute Appendicitis

- thought to relate to obstruction of appendiceal lumen with eventual perforation
- lymphoid hyperplasia is thought to be common cause in younger patients
- blockage by solid particles of stool fecaliths is more common etiology in adults
- obstruction can also happen from tumors, seeds and other foreign bodies

Presentation of Acute Appendicitis

- can potentially present as pain anywhere in the abdomen
- classically begins with vague, periumbilical abdominal pain often accompanied by nausea and anorexia
- over course of 24 hours or less, pain intensifies and localizes to RLQ
- if patient complains of high fever, chills and describes pain that briefly subsided before getting worse, suspect a perforated appendix

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Diagnosis and Differential Diagnosis

- thorough history important
 - presence or absence of urinary tract symptoms
 - changes in bowel habit
 - gynecologic history
 - family history
- physical exam equally important and should begin with vital signs
 - fever may or may not be present
 - tachycardia as a result of pain or dehydration
 - rare cases, hypotension and septic shock
 - tenderness and guarding with palpation over RLQ key finding
 - women should also have pelvic exam
- lab workup is key
 - CBC with differential should be ordered to check total white blood cell count
 - urinalysis
 - beta-HCG in women to rule out pregnancy
- importance of other tests
 - helpful with atypical presentations, patients over 50, and women of childbearing age
 - abdominal and pelvic U/S useful for children and women
 - computed tomography
- differential diagnosis can include gastroenteritis, Meckel's diverticulitis, UTI and Crohn's
 - women who are sexually active and of childbearing age - include ectopic pregnancy, pelvic inflammatory disease, ruptured ovarian cyst, tubo-ovarian abscess and ovarian torsion
 - older patients - include diverticulitis and malignancy
 - young children - include mesenteric adenitis and intussusception

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Surgery

- treatment requires appendectomy
- two approaches, open or laparoscopic
- no evidence to support one approach over the other, based on preference
- recovery is generally quick if no perforation or gangrene of the appendix
- most common post-op complications are wound infection and abscess formation

Summary

- appendicitis is a common disease and should be considered in the differential diagnosis of any patient with acute abdominal pain
- the class history is of vague peri-umbilical pain becoming localizing to the RLQ
- a low-grade fever and tenderness to palpation over McBurny's point is typical of appendicitis
- essential lab tests are the CBC and a pregnancy test in women
- DI by U/S is advisable in women of childbearing age, and a CT may be warranted in patients over 50 and in atypical presentations
- treatment of the disease requires appendectomy