

FAMILIAL ADENOMATOUS
POLYPOSIS: NOT ALWAYS A
FAMILIAL CONDITION

A CASE STUDY



OBJECTIVES

- Recognize presenting symptoms and clinical presentation of FAP patients
- Discuss the epidemiology for the disease for the disease process and association with other neoplastic processes
- Describe the long-term impacts of this disease on the patient and affected family
- Review surgical treatment and surveillance options



DISCLAIMER

I am indeed a redneck from NC. I have no financial interest or professional relationships with any healthcare or instrument organization and do not discuss specific products.

HEREDITARY POLYPOSIS SYNDROMES

Serrated polyposis

Serrated Polyposis Syndrome
(*RNF43*, rare cause)

Non polyposis

Lynch Syndrome
(*MLH1*, *MSH2/EPCAM*,
MSH6, *PMS2*)

Adenomatous polyposis

Familial Adenomatous Polyposis (*APC*)
Attenuated Familial adenomatous Polyposis (*APC*)
MUTYH-Associated Polyposis (*MUTYH*, recessive)
MSH3-Associated Polyposis (*MSH3*, recessive)
Polymerase Proofreading Associated Polyposis (*POLE*, *POLD1*)
AXIN2-Associated Polyposis (*AXIN2*)
NTHL1-Associated Polyposis (*NTHL1*, recessive)

Hamartomatous polyposis

Cowden syndrome (*PTEN*)
Juvenile Polyposis (*BMPR1A*, *SMAD4*)
Peutz-Jeghers Syndrome (*STK11*)

Mixed polyposis

Hereditary Mixed Polyposis Syndrome
(*GREM1*)
Cowden Syndrome (*PTEN*)



CASE STUDY

*22 year old male with bright
red blood per rectum*



FAP – CLINICAL PRESENTATION

- BLEEDING (80%)
- Diarrhea (70%)
- Abdominal pain
- Mucous discharge
- CRC at time of diagnosis (27%)
 - Mt. Sinai, NY
 - 12-43% in the literature
- Weight loss (usually in the setting of malignancy)
- Upper GI adenomas (Duodenum)
- Osteoma (Jaw)
- Congenital hypertrophy of retinal pigment epithelium - CHRPE (Eyes)
- Epidermoid cysts
- Unerupted or additional teeth
- Desmoid tumors
- Adrenal gland tumors

FAP QUICK HITS

- Incidence 0.0001% (1:10,000)
- Symptoms in early adolescence
 - *Polyposis ~ 16 yo with >100 polyps (attenuated 30s with < 50 polyps)*
- Cancer risk ~ 40 yo (attenuated 50-60)
- APC gene (yMUTYH)
 - *β -catenin downregulation*
- Familial (20-25% spontaneous)
- Desmoid tumors, duodenal cancer, biliary tract carcinoma, Hepatoblastoma, Medulloblastoma

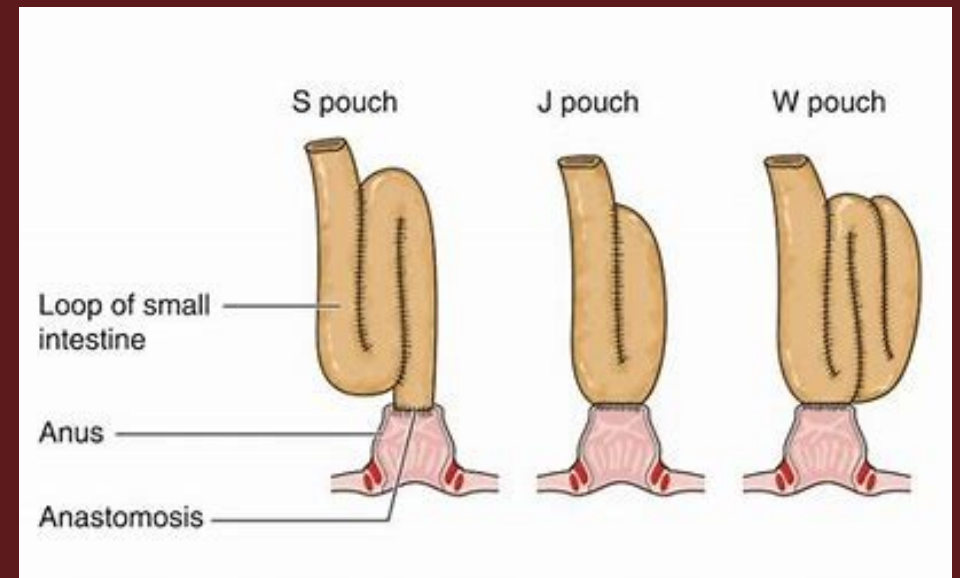
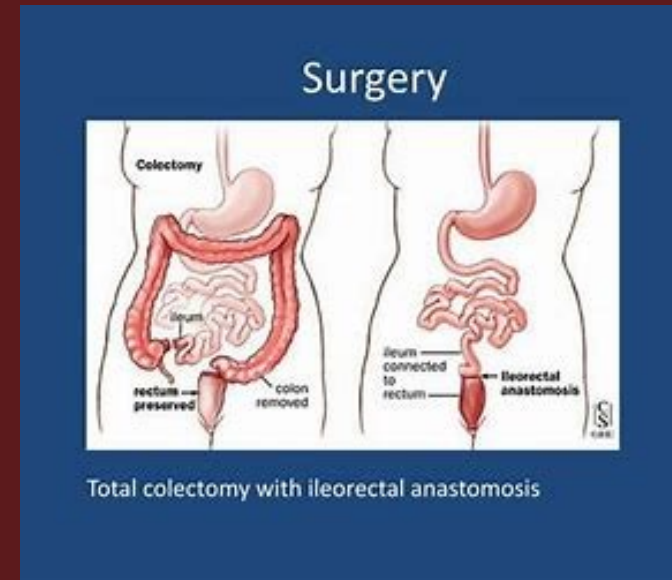
SURGICAL OPTIONS



WHAT TO DO WITH OUR 22-YEAR-OLD??

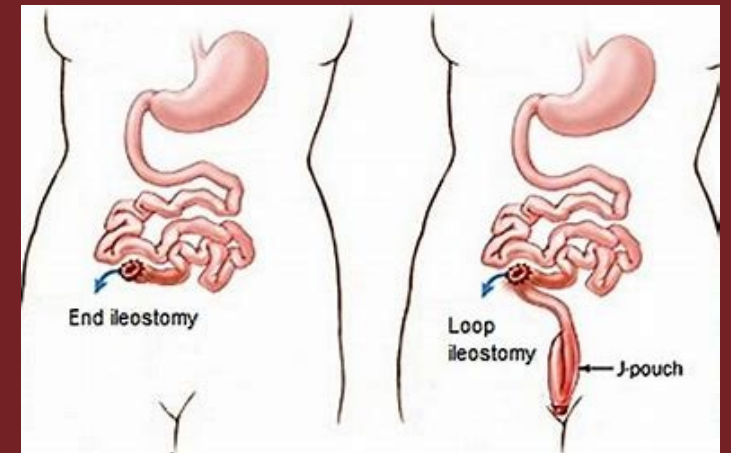
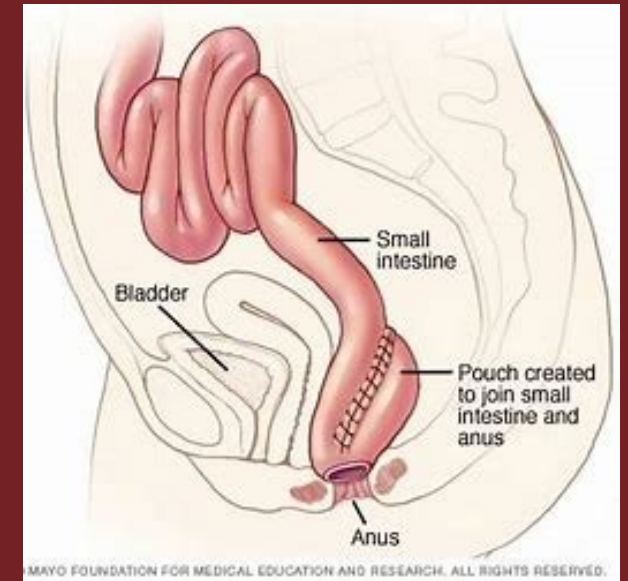
SURGICAL OPTIONS

- Total abdominal colectomy with ileorectal anastomosis
 - *Requires surveillance*
 - *Future risk of cancer*
 - *Bowel function closer to baseline*
- Total proctocolectomy with IPAA
 - *+/- mucosectomy*
 - *Surveillance of anal mucosa*
 - *Staged procedure*
 - *More frequent bowel movements*
- Total proctocolectomy with end ileostomy
 - *Easier to control succus*



IMPACTING FACTORS

- Diagnosis and workup in adolescence
 - Surgery can be delayed until patient reaches appropriate intellectual and physical maturity unless disease or symptoms are more severe
- Surveillance for extracolonic manifestations
- Alterations of bowel habits in youth
 - Can be socially isolating
 - Many centers include therapy sessions and support groups.
- Physical, financial, and psychological stressors on parents/siblings
 - Threat of malignancy
 - Staged surgery
 - Multiple multidisciplinary appointments





AND NOW...THE REST OF THE STORY

- Prolapsing mass was reduced
- Total abdominal colectomy distal to mass (proximal rectum) with end ileostomy
- Pathology multicentric areas of high-grade dysplasia, no adenocarcinoma
- Staged completion proctectomy with IPAA - J pouch
- Improved bowel function with fiber and anti-diarrheal medications
- Duodenal adenomas resected with surveillance every 1-2 years



QUESTIONS??

