

Introduction

- Peutz-Jeghers syndrome (PJS) is an inherited polyposis syndrome caused by mutation in the *STK11* gene, and characterized by hamartomatous polyps throughout the gastrointestinal tract, most often in the small bowel (60-90%) and colon (50-64%)
- Presenting symptoms in PJS are often related to symptomatic polyps, including intestinal obstruction, abdominal pain, and bloody stools
- For PJS patients, current recommendations support screening upper endoscopy, colonoscopy, and video capsule endoscopy at age 8-10, and if no polyps identified then again at age 18
- Small bowel screening is recommended every 2-3 years.
- Deep enteroscopy, via antegrade or retrograde balloon enteroscopy, is often required for clearance of larger polyps visualized on video capsule endoscopy (VCE)
- We aimed to evaluate if proactively performing deep enteroscopy vs. serial VCE in adult PJS patients reduces risk of requiring subsequent surgical intervention.

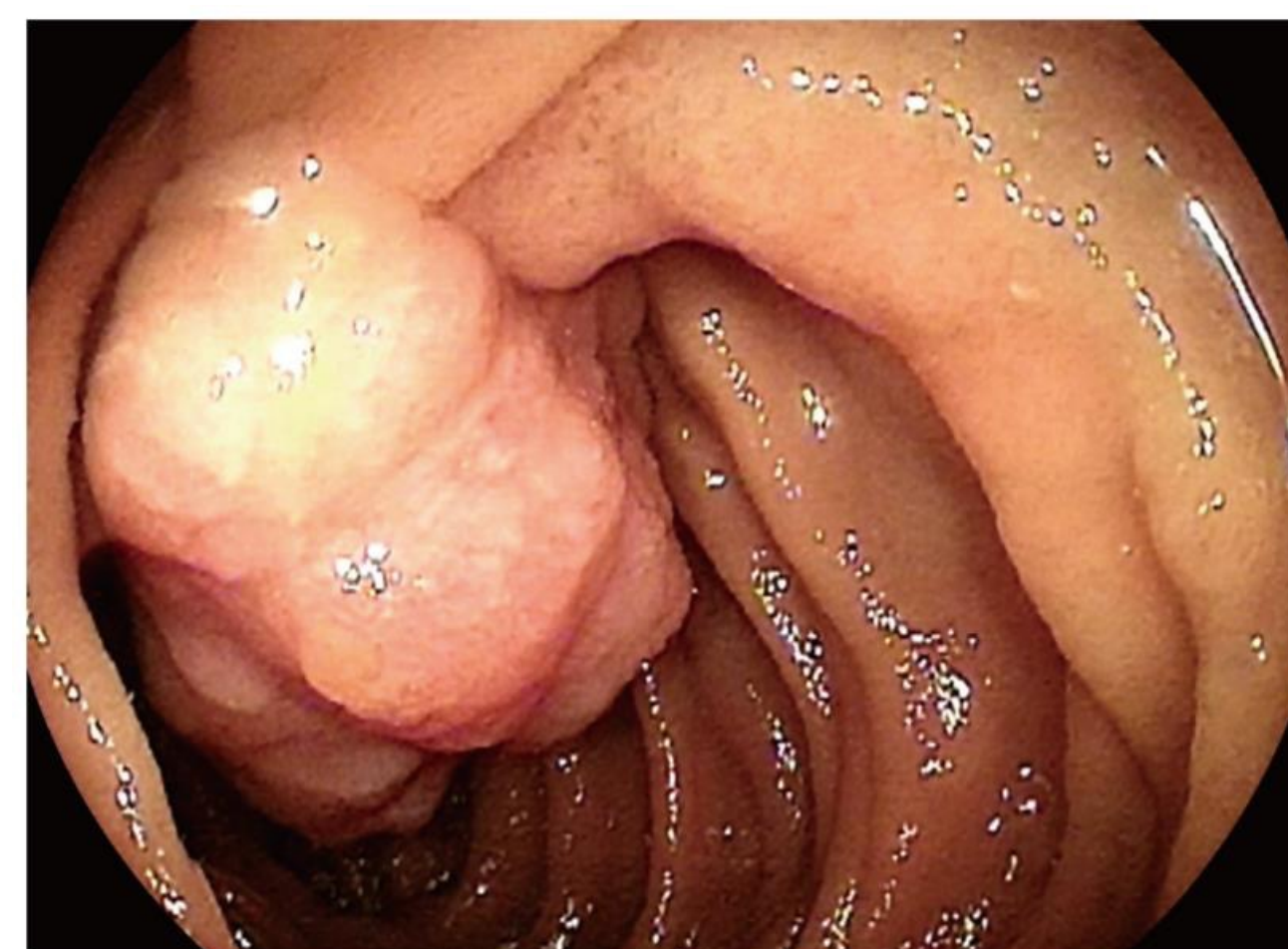


Figure 1. Jejunal Hamartoma in PJS patient

Methods

- We retrospectively collected data from adult patients over 18 years of age with Peutz-Jeghers syndrome who underwent deep balloon enteroscopy for small bowel surveillance.
- Patients within this subset underwent proactive screening with antegrade double balloon enteroscopy performed approximately every one to two years.
- Data collected included number of prior small bowel surgeries before onset of and during deep enteroscopy surveillance, and complications.

Table 1. Demographics of PJS Patients Undergoing Deep Enteroscopy Surveillance

	Average (\pm standard deviation)
Age	42 \pm 10.4
# of prior small bowel surgeries (before balloon enteroscopy surveillance)	1.92 \pm 1.38
# of balloon enteroscopies during surveillance	2.77 \pm 1.42
Duration of deep enteroscopy surveillance (years)	4.69 \pm 2.95
# of surgeries during/after balloon enteroscopy surveillance	0.46 \pm 0.66

Results

- Thirteen patients underwent deep enteroscopy from 2010 through 2021.
 - Average number of prior small bowel surgeries was 1.9 (SD 1.4)
 - Average number of balloon enteroscopies during surveillance period was 2.8 (SD 1.4)
 - Average number of surgeries during balloon enteroscopy surveillance was 0.46 (SD 0.66)
- There was a significant difference between number of surgeries before and during surveillance period ($p=0.002$)
- There were no significant complications during deep enteroscopy

Conclusion

- The initial standard screening modality for small bowel polyps and malignancy, VCE, can be complicated by increased risk of capsule retention given likelihood of prior surgery and possibility of obstructing polyps
- Additionally, within the PJS cohort, there is a high yield for pathology which may ultimately require therapeutic deep enteroscopy anyhow
- Previous studies, mostly case series, have confirmed the effectiveness of double balloon enteroscopy in management of small bowel polyps, particularly amongst the pediatric population.
- Our study, though small, does indicate that on a proactive balloon enteroscopy surveillance protocol there is a significantly lower risk of requiring small bowel surgery.

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