POST- OP DUHAMEL PROCEDURE WITH LIKELY ANASTOMOTIC STRICTURE

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CASE SUMMARY

4-year-old female diagnosed with Hirschsprung's disease at 5/12 with rectal biopsy who had levelling colostomy at 10/12 and Duhamel's pull through at 1 year of age. She developed abdominal distension and 2 episodes of HAEC the following year. She was being managed with daily rectal irrigations. Investigations revealed an anastomotic stricture confirmed on barium enema and contrast enhanced CT. She had resolution of distension and was decompressing spontaneously one week post CT. What are the next steps?

WHAT IS THE NEXT BEST STEP?

- A) COLONOSCOPY +/- BALLOON DILATATION
- B) WATCH AND WAIT
- C) RE-DO PULL THROUGH
- D) LAPAROSCOPY
- E) EXAMINATION UNDER ANAESTHESIA +/- REPEAT BIOPSY

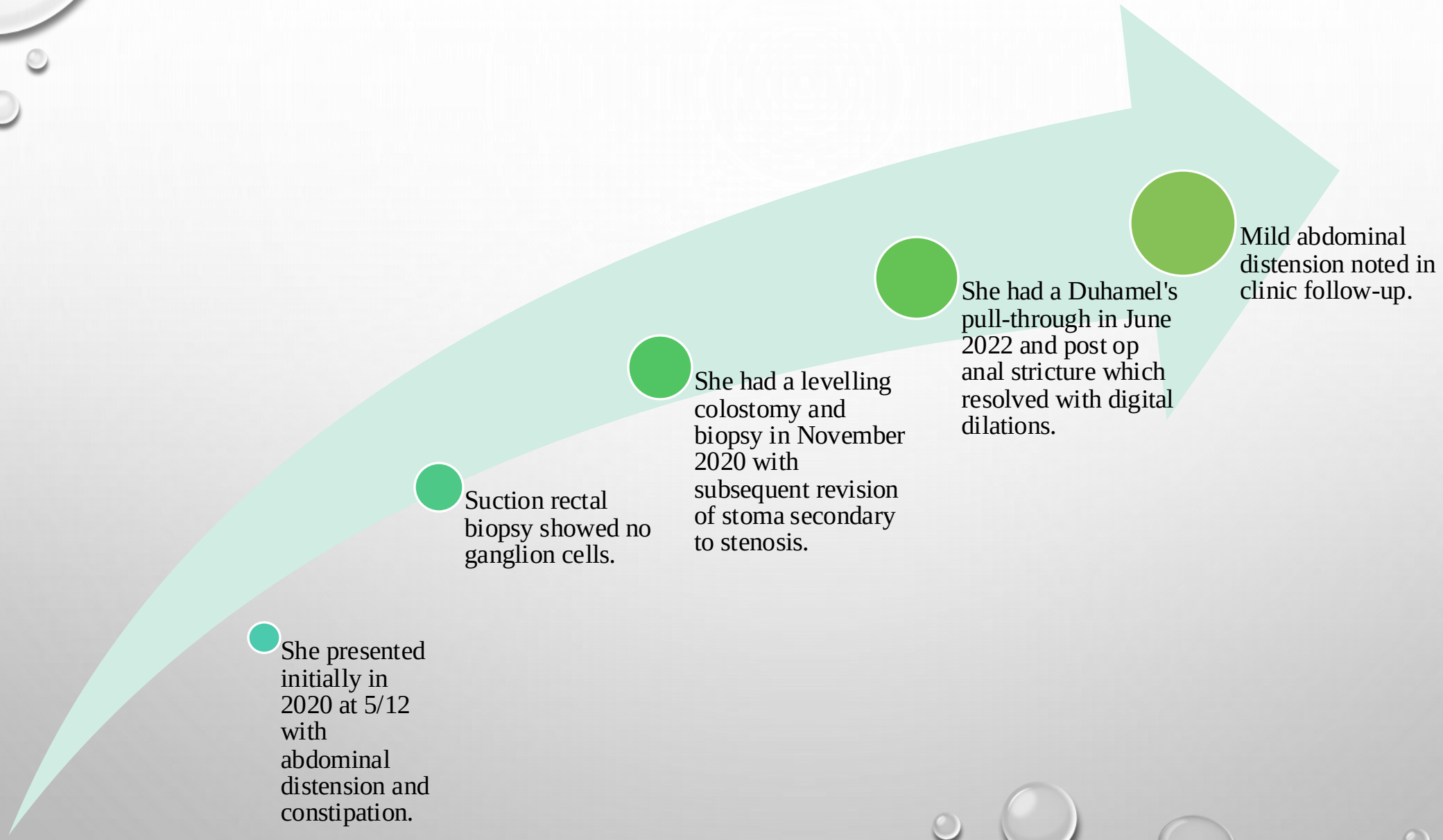
PAST MEDICAL HISTORY

- History of Atrial Septal Defect on furosemide and enalapril which subsequently closed on serial echocardiograms
- History of bradycardic episodes on induction of general anaesthesia during rectal biopsy
- History of lower respiratory tract infection with bronchospasm in February and November 2023
- History of failure to thrive, now resolved
- History of developmental delay- improving

CURRENT DIAGNOSIS

- Anastomotic stricture with gross colonic dilatation previously requiring daily rectal washouts for decompression with 24 F Foley's catheter.
- The CT done one month ago showed the likely anastomotic stricture at the most proximal staple line with proximal colonic dilation.
- Currently, patient has not required decompression for a month and is able to pass flatus and stool spontaneously with no episodes of distension.

REVIEW OF PROCEDURES AND IMAGING



In October 2023 and April 2024, she had episodes of HAEC treated with IV antibiotics and rectal washouts.

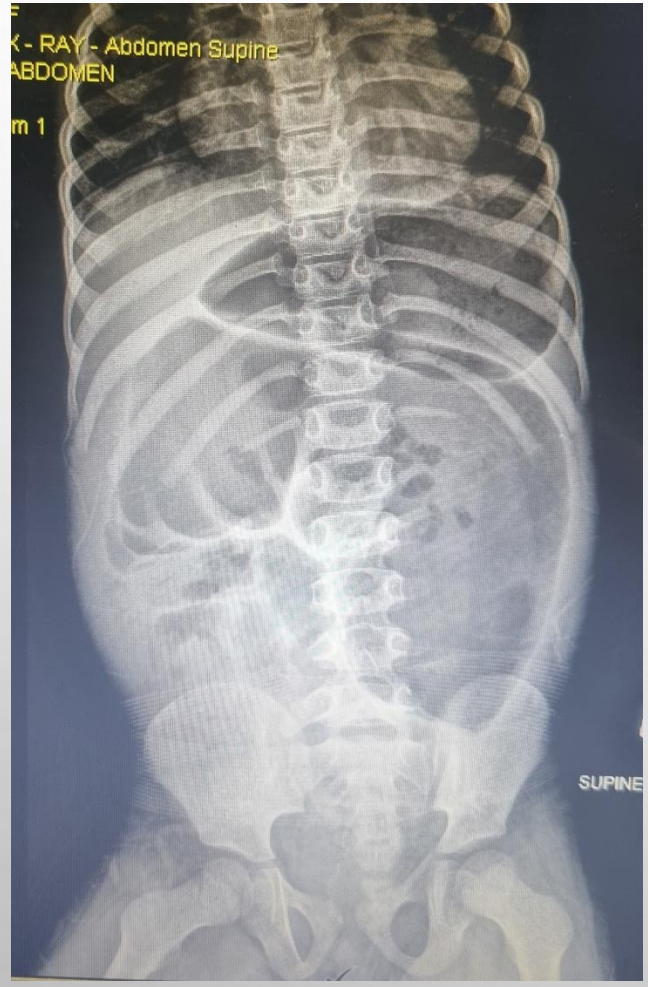
An upper GI contrast study was done for ?Gastric distension which showed gross colonic distension and normal stomach. Regular rectal washouts started.

Histology was reviewed from Duhamel procedure which confirmed ganglion cells present in areas of proximal stoma.

A barium enema done in March 2024 showed a likely colonic stricture, proximal to anastomosis with gross colonic distension.

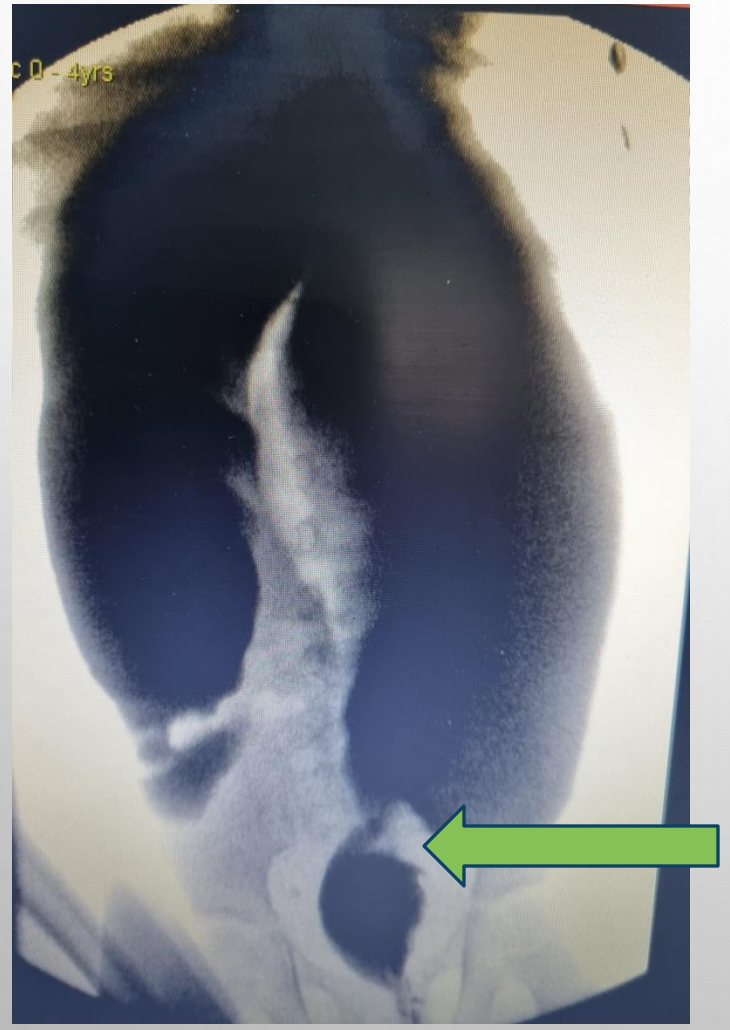
A contrast enhanced CT was done in July 2024 which showed an anastomotic stricture at the proximal end of the anastomosis (at level of most proximal staple)

IMAGING



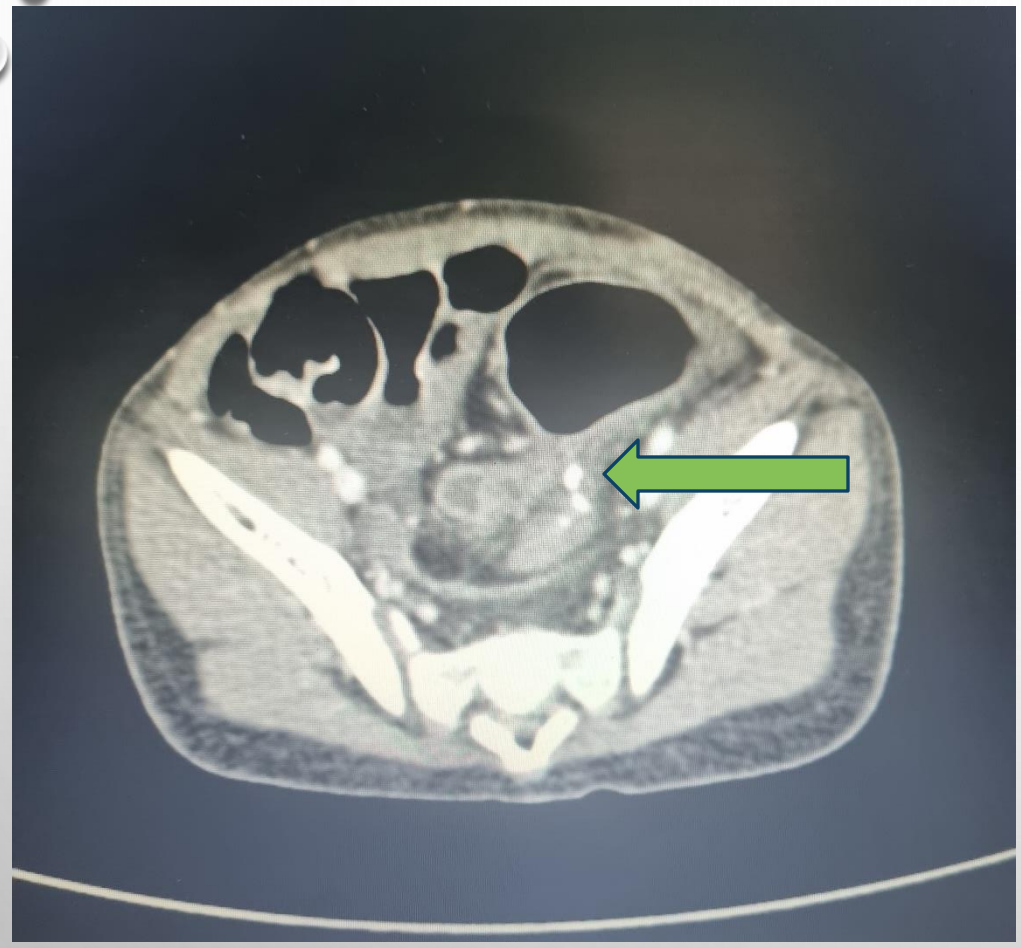
Abdominal radiograph showing large bowel dilation

IMAGING



Barium enema radiograph showing a likely stricture

IMAGING



AN AXIAL IMAGE OF A CONTRAST ENHANCED ABDOMINO-PELVIC CT SHOWING THE THE PROXIMAL MOST STAPLE WITH AREA OF NARROWING

IMAGING

A VIDEO OF THE AXIAL CT IMAGES SHOWING SITE OF THE STRICTURE

CHALLENGES

- Patient had recurrent upper respiratory tract infections which have delayed investigations.
- Patient had two previous episodes of HAEC and is at risk for future episodes.
- Due to previous complications with general anaesthesia (bradycardic episodes) and recent resolution of symptoms, the parents are hesitant to proceed with further surgical therapy, including colostomy.

QUESTIONS

1) Are colonoscopy and balloon dilatation recommended/feasible for this case or does the risk of perforation limit this intervention?

2) Is laparoscopy to identify possible adhesions as the cause of symptoms indicated?

3) Is a re-do pull-through indicated ?

THANK YOU!