VOYAGE OF A CHILD WITH INTESTINAL OBSTRUCTION

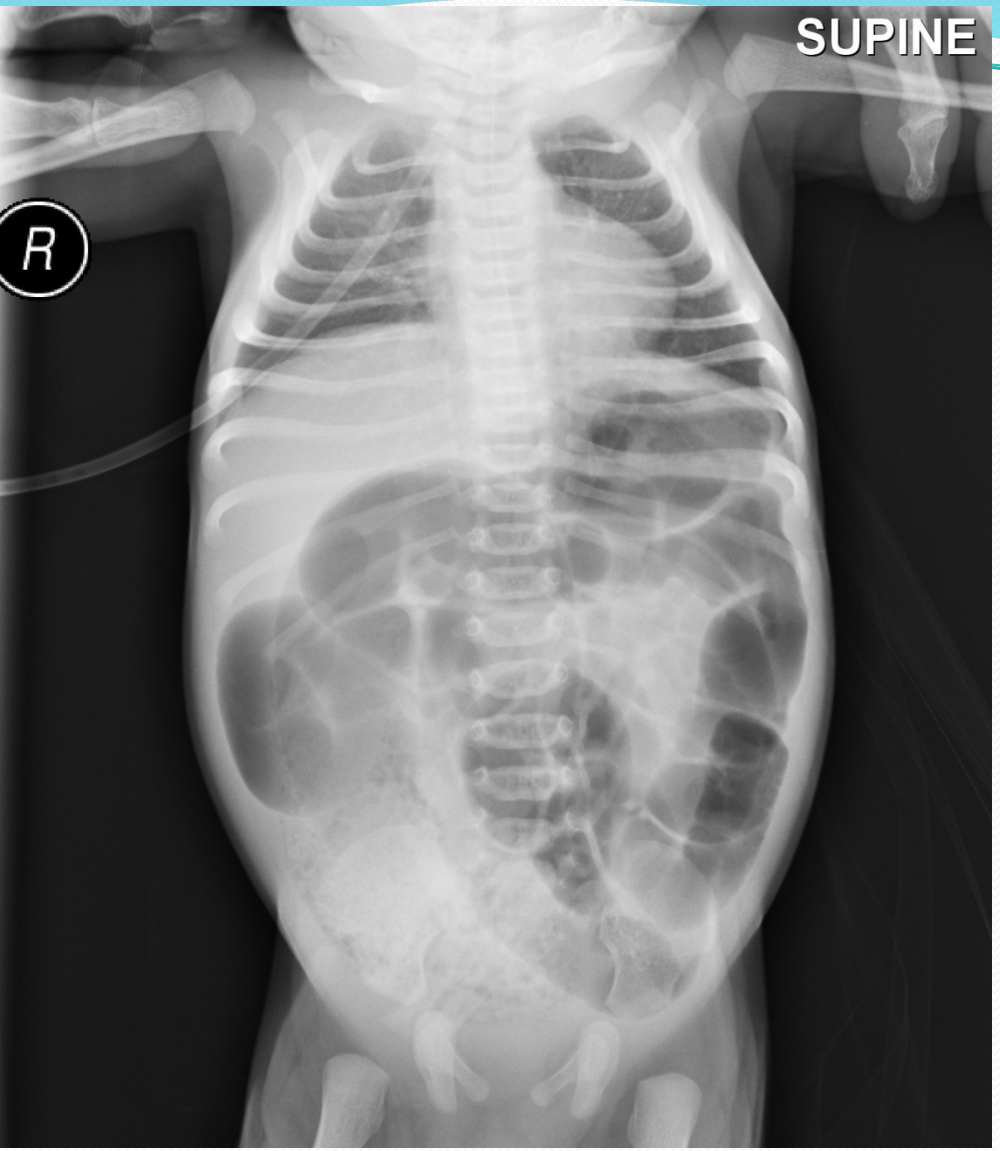
Ghazi M, Rajendran R, Samir H

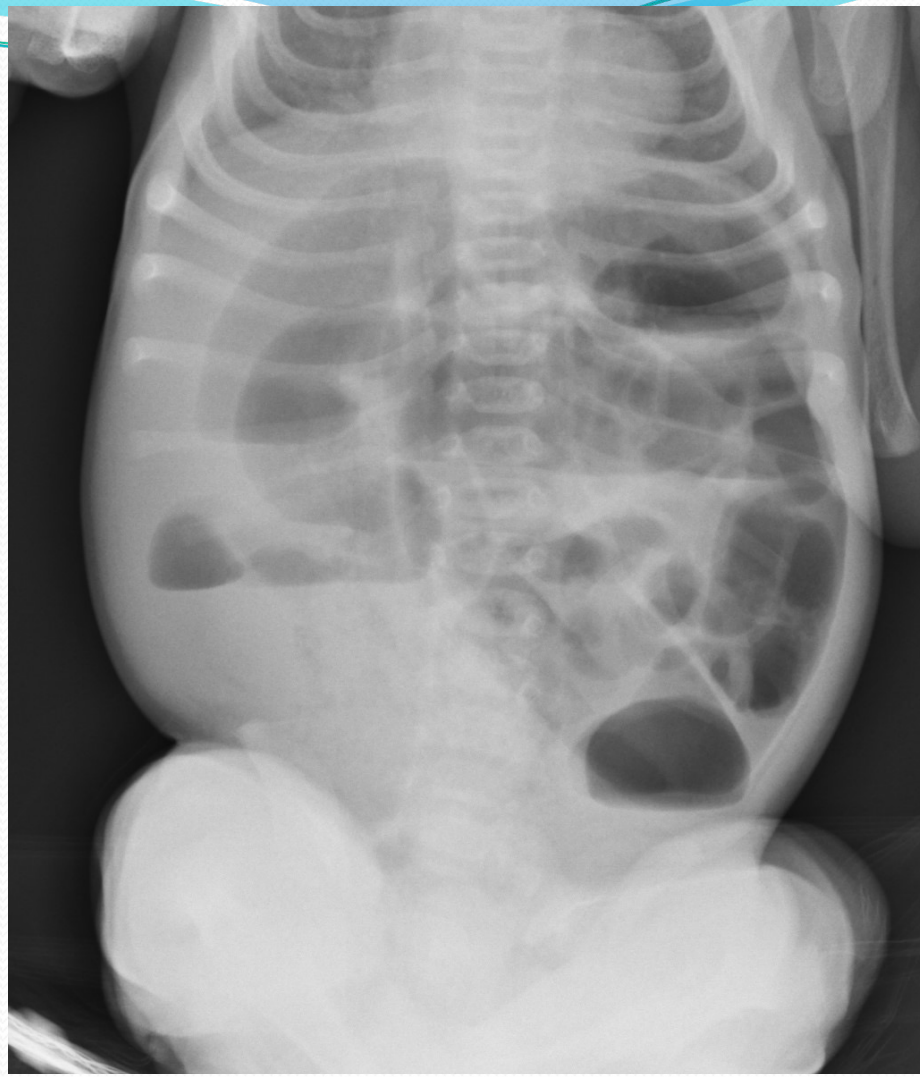
Department of pediatric surgery,

MCH (under MOH), Najran, Saudi Arabia.

CLINICAL DATA

- Male patient referred from a general hospital as possible distal ileum atresia at day 6 of life.
- Full-term, first pregnancy, normal vaginal delivery.
- Developed bilious emesis and abdominal distension.


SUPINE
R



What is the diagnosis/DD?

1. Hirschsprung disease
2. Malrotation
3. Ileal atresia
4. I don't know but he needs surgery

What was done?

- Laparotomy on the next day.
- Findings: markedly dilated rectum and entire intestine (colon and small bowel).
- Multiple full thickness biopsies were taken (rectal, proximal & distal sigmoid)
- Divided sigmoid colostomy.

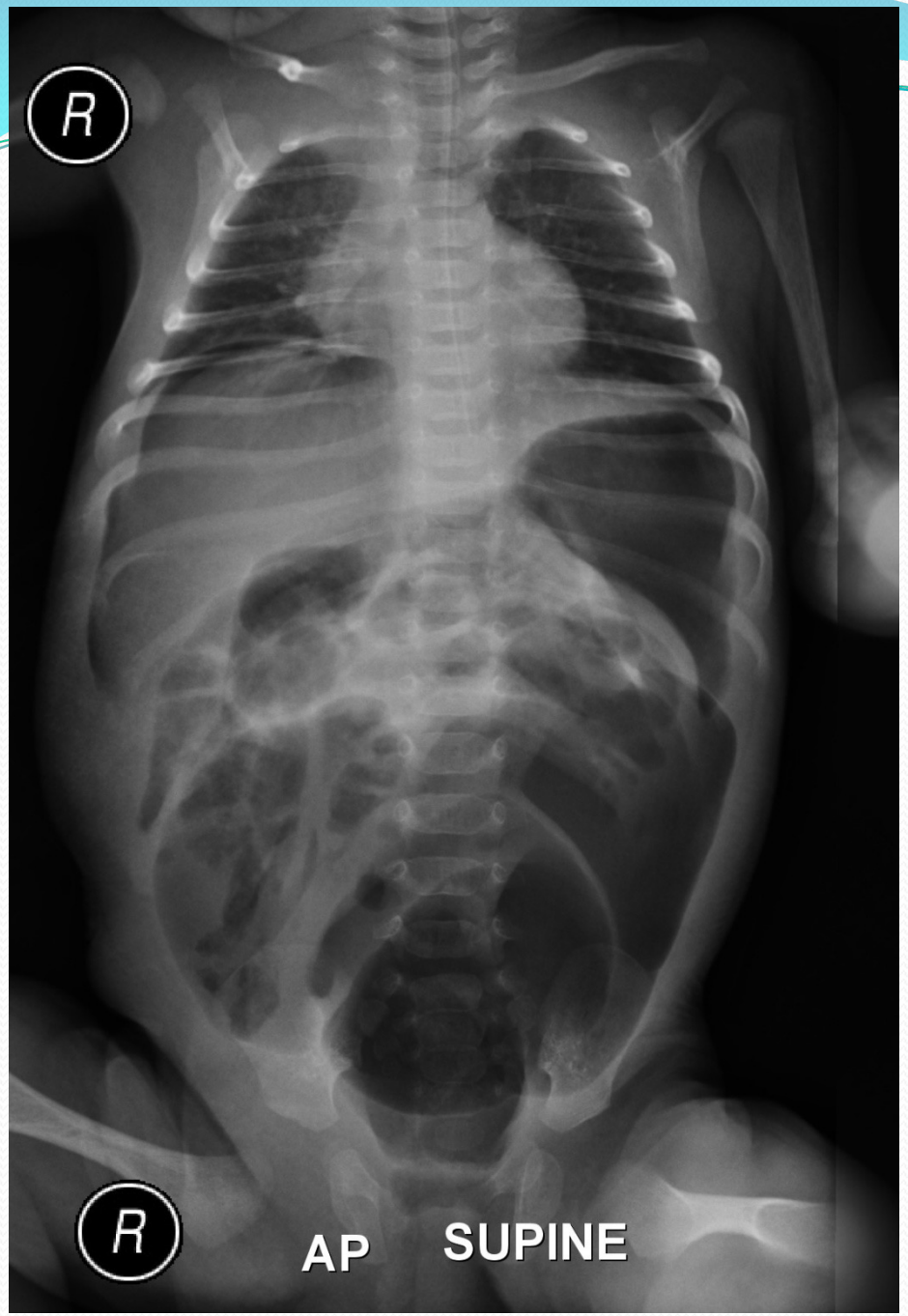
- Uneventful post-op.
- Distension subsided. Stoma was viable, functioning, and healthy.
- Incisional hernia at the right half of laparotomy wound.
- At 1 month post-op, histopathology report came back as having **NORMAL GANGLION CELLS** in all specimens.

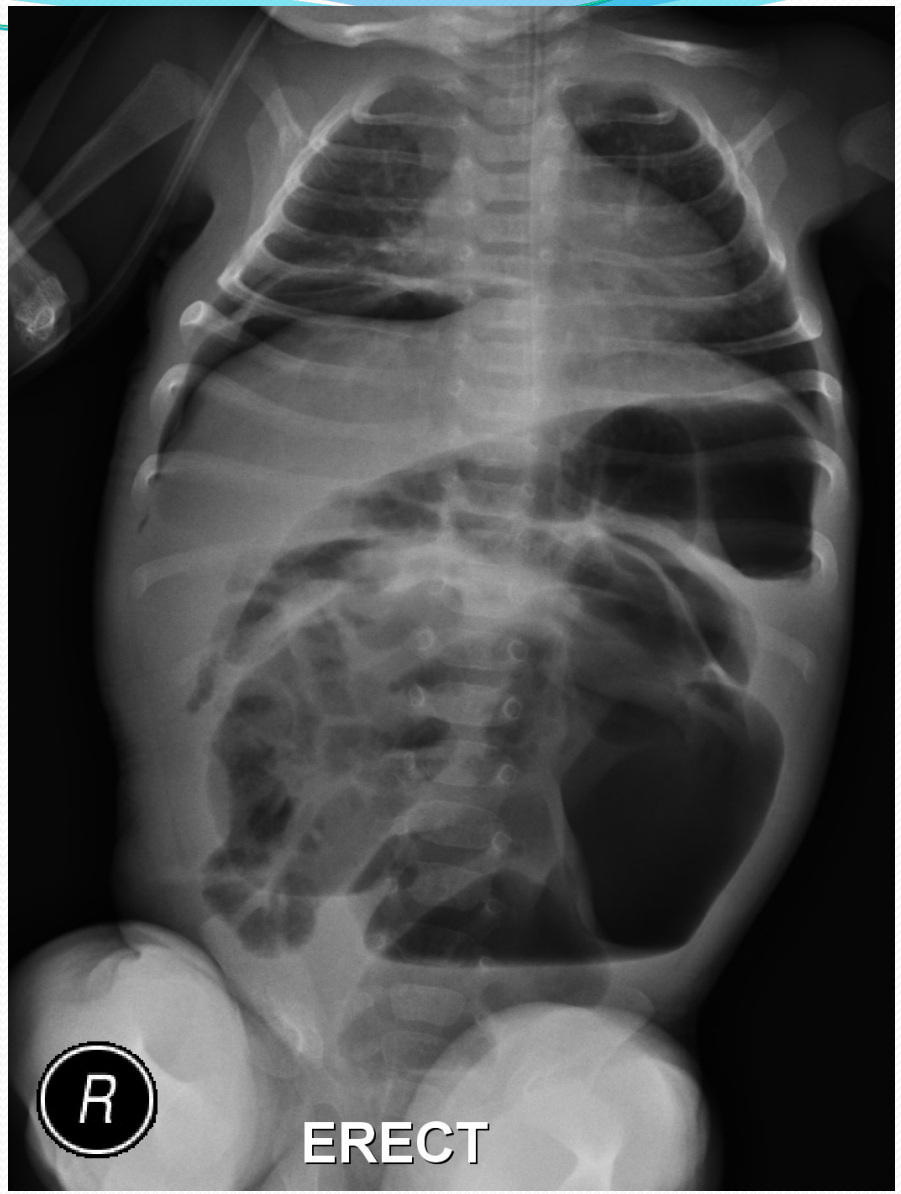
What is the next step?

1. Colostomy closure
2. Proximal and distal colostogram
3. I don’t know

2nd SURGERY

- COLOSTOMY CLOSURE + REPAIR OF INCISIONAL HERNIA (32d after colostomy)
- On post-op day 5: severe abdominal distention, constipation, bilious nasogastric drainage. Tenderness+ redness +abdominal wall edema
- X-Ray: pneumoperitonium + air-fluids level


R
R
AP SUPINE


R
ERECT

3rd surgery

- Emergent laparotomy = found a leak as well as Malrotated gut & subhepatic caecum.
- Procedure: repair of anastomotic disruption + appendectomy + Insertion of intra-abdominal suction drain.
- 3rd post-operative day: abdominal distension, partial wound dehiscence and fecal fistula. Intra-abdominal drain with intestinal content.

4th surgery

- Re-laparotomy on 4th post-op day.
- Findings: leak from the anastomosis site.
- Procedure: Anastomosis disconnection, proximal limb end-COLOSTOMY + distal limb HARTMAN'S pouch. Closure of minute perforation at the terminal jejunum , abdominal drain + tension suture of laparotomy
- Smooth recovery. Discharged home on 31st post-op day.

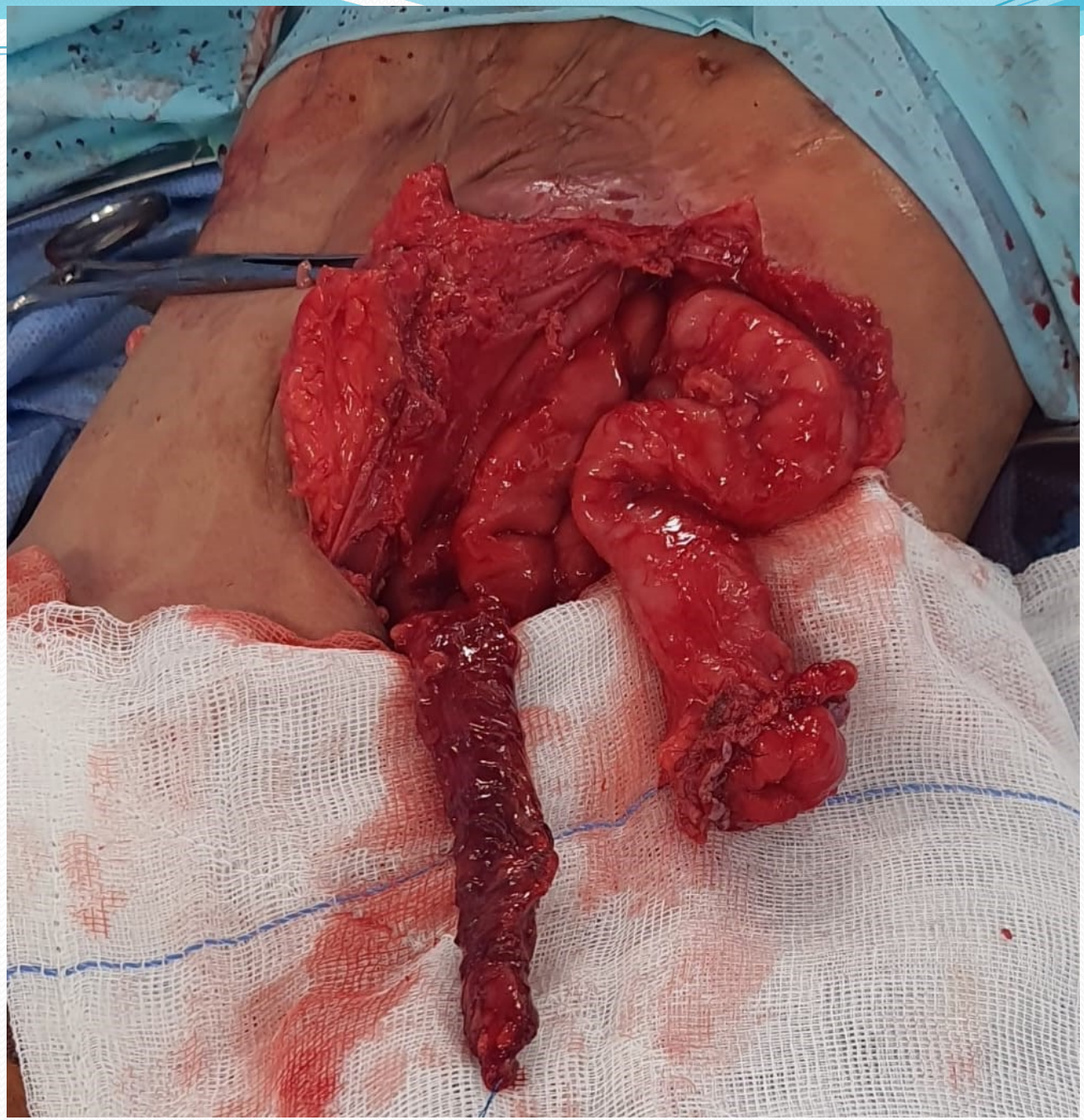
TRANSANAL FULL-THICKNESS RECTAL BIOPSY

- At the age of 1 year, transanal full thickness rectal biopsy/GA done from 1 cm above the dentate line done.
- HPE Report= absence of ganglion cells in submucosal & intermuscular levels. Immunostaining with calretinin negative, confirming absence of ganglion cells. Consistent with Hirschsprung's disease.

What is the surgery of your choice?

1. Swenson
2. Soave
3. Duhamel

5th surgery: Duhamel's operation



5th surgery: Duhamel's operation

- At the age of 20 months, child underwent Martin's modification of Duhamel's operation. Distal sigmoid colon and rectum up to peritoneal reflection excised. End-colostomy pulled down. End to side colo-anal anastomosis.
- Common apposing walls crushed with Irani's clamp for autoanastomosis. This clamp auto-released on 6th post-op day.
- Smooth recovery, except for superficial wound infection.

Take-home message

- In a newborn presenting with lower intestinal obstruction, proved by plain abdominal radiograph, contrast enema examination should be performed to distinguish small intestinal obstruction from colonic obstruction & to diagnose HD.
- In suspected case of HD, if intra-abdominal biopsy results are negative, transanal rectal biopsy must be done to exclude HD.


Thank You!