An Unusual case of intestinal obstruction

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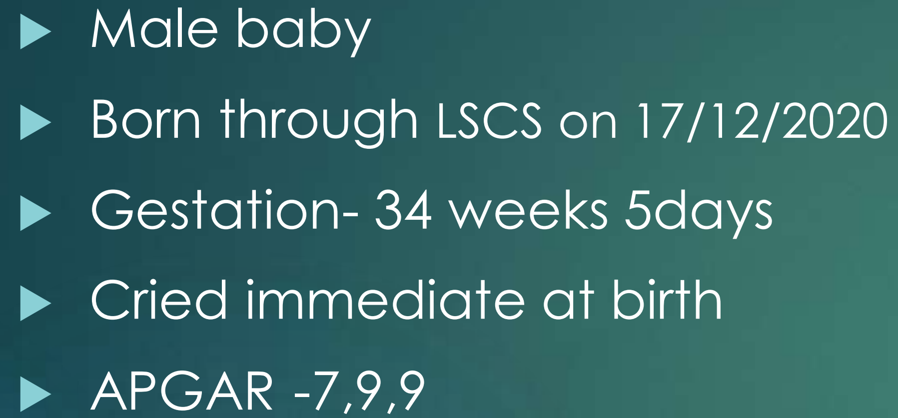

Male baby
Born through LSCS on 17/12/2020
Gestation- 34 weeks 5days
Cried immediate at birth
APGAR -7,9,9

Maternal history:

- 30 years old
- Primigravida
- Spontaneous conception
- Regular ANC
- Immunized
- 1st and 2nd trimester - uneventful
- 3rd trimester - LPV (around 15 hours).
- Antenatal scan ………………..

Soon after birth baby developed respiratory distress
After giving delivery room CPAP baby shifted to NICU for further management

On Examination:

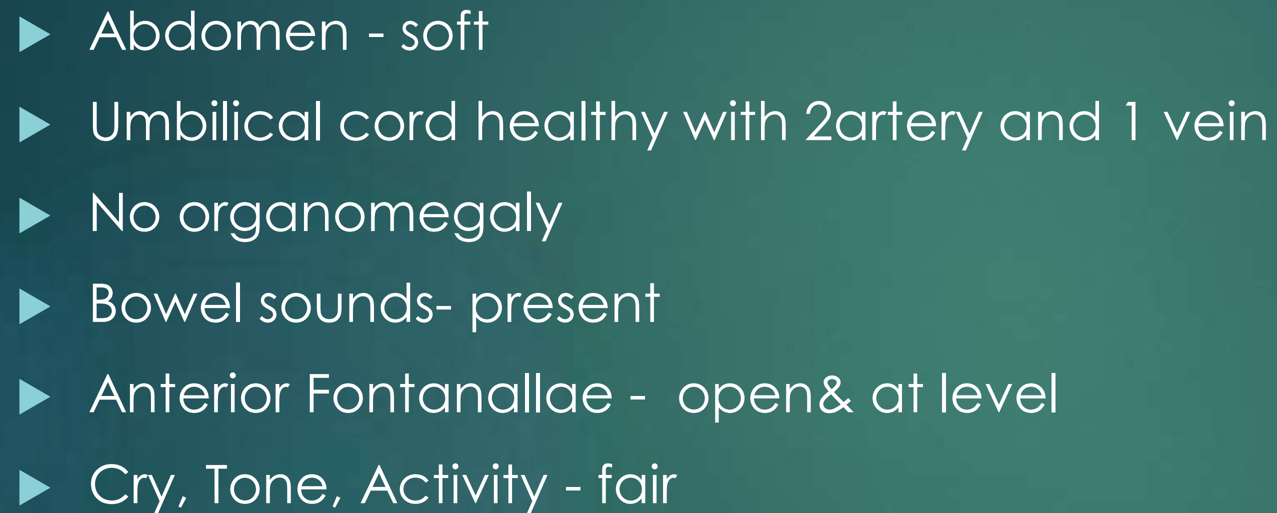
- HR-152 bpm
- RR-66/min
- Spo2 -96% on n-CPAP with 21% Fio2 and PEEP 6 cm H_2O
- Temprature - 98 °F
- CFT <3 sec

Anthropometry:

- Birth weight- 2072 gm (BW 50th & 10th centile)
- Length- 46 cm (at 50th centile)
- OFC- 31 cm (at 50th centile)
- Head to toe- No Dysmorphic feature was present

SYSTEMIC EXAMINATION-

- RR- 66/min
- Grunting
- Subcostal retraction
- B/L equal breath sound
- Silverman Anderson scoring - 5/10
- Apex on left side
- No murmur

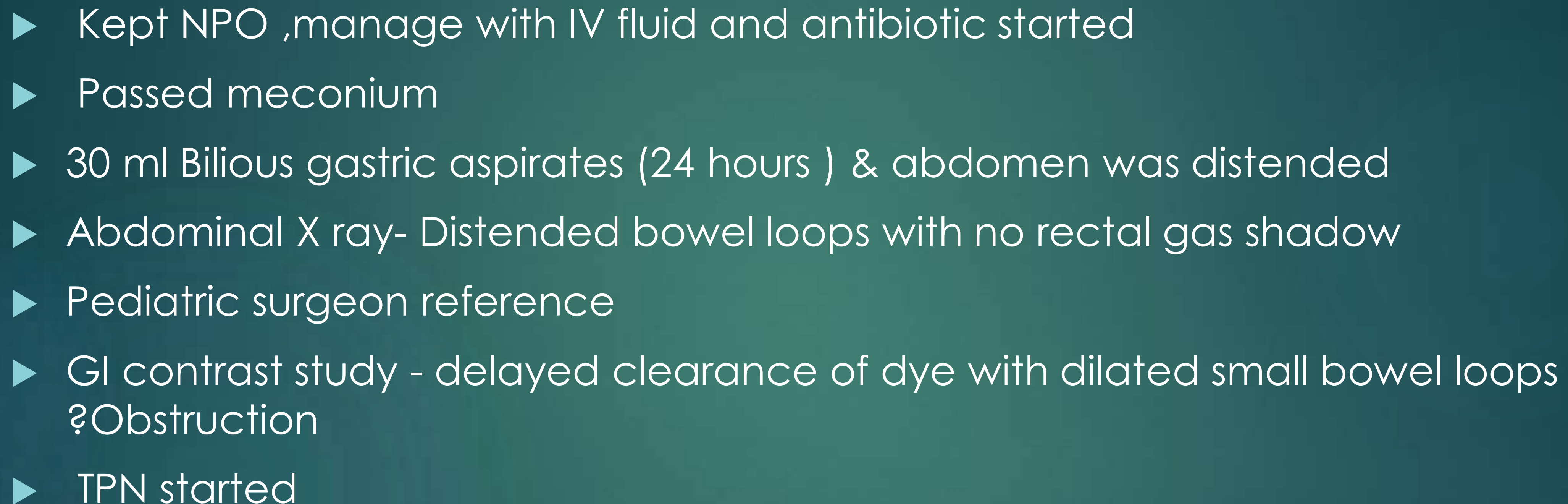

Abdomen - soft
Umbilical cord healthy with 2artery and 1 vein
No organomegaly
Bowel sounds- present
Anterior Fontanallae - open& at level
Cry, Tone, Activity - fair

PROVISIONAL DIAGNOSIS:

- PRETERM(34+5)/AGA/MALE/RESPIRATORY DISTRESS

Course in Hospital

- FiO_2-21%, PEEP- 6cm H_2O
- Blood gas & CXR = normal
- CPAP weaned at 10 hours life
- Hemogram & blood culture done
- IV fluid started
- OG feed started
- 10-12 hours of life one episode of apnoea following vomiting and had bilious aspirates ,abdomen -soft



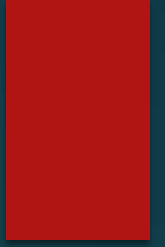
Kept NPO ,manage with IV fluid and antibiotic started
Passed meconium
30 ml Bilious gastric aspirates (24 hours) & abdomen was distended
Abdominal X ray- Distended bowel loops with no rectal gas shadow
Pediatric surgeon reference
GI contrast study - delayed clearance of dye with dilated small bowel loops ?Obstruction
TPN started

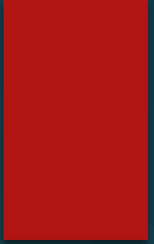
Diagnosis Revised

PRETERM/AGA/LSCS/MALE//INTESTINAL OBSTRUCTION

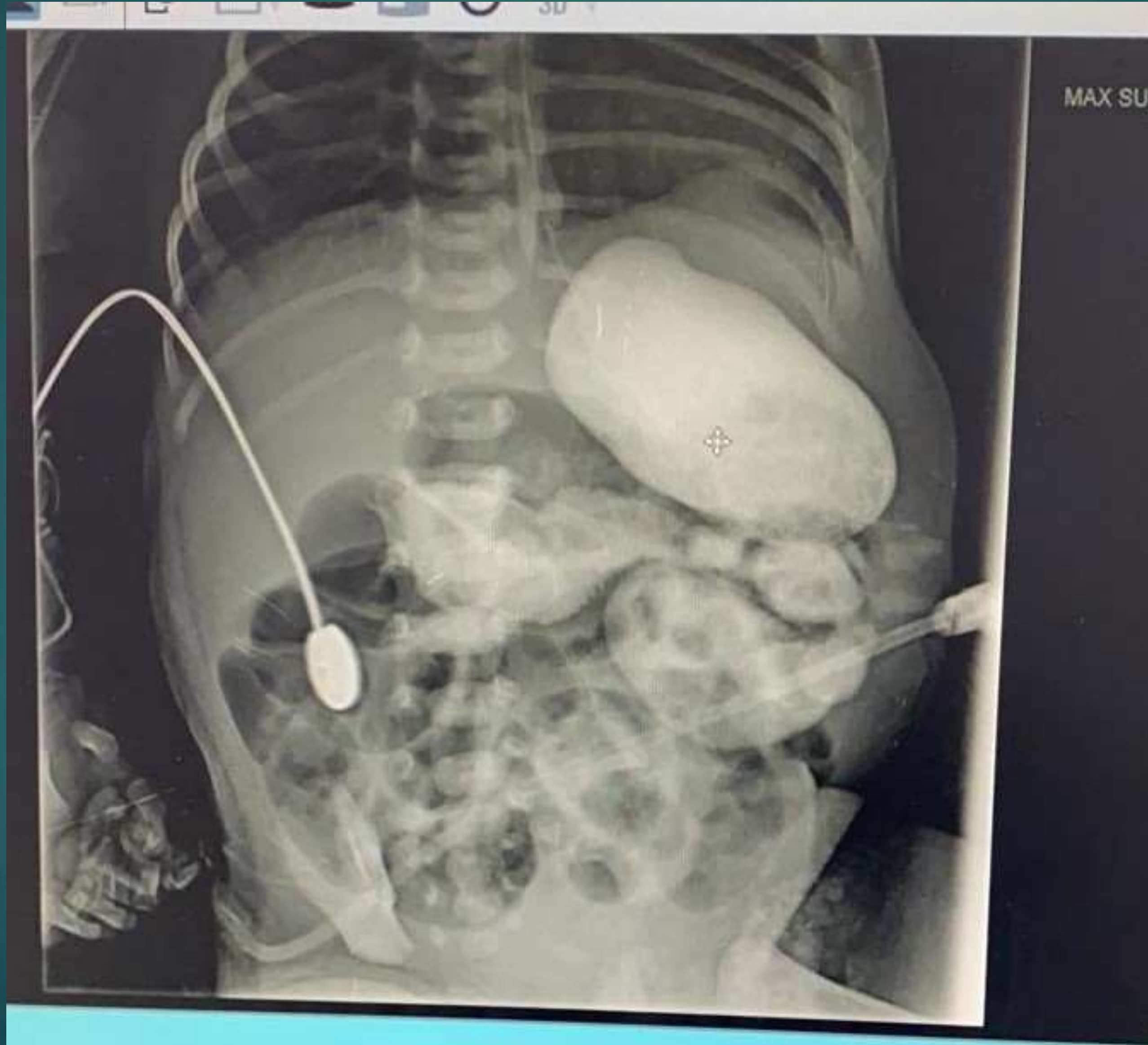
- ?Malrotation
- ?Duodenal Stenosis
- ?Annular Pancreas
- ?Volvulus

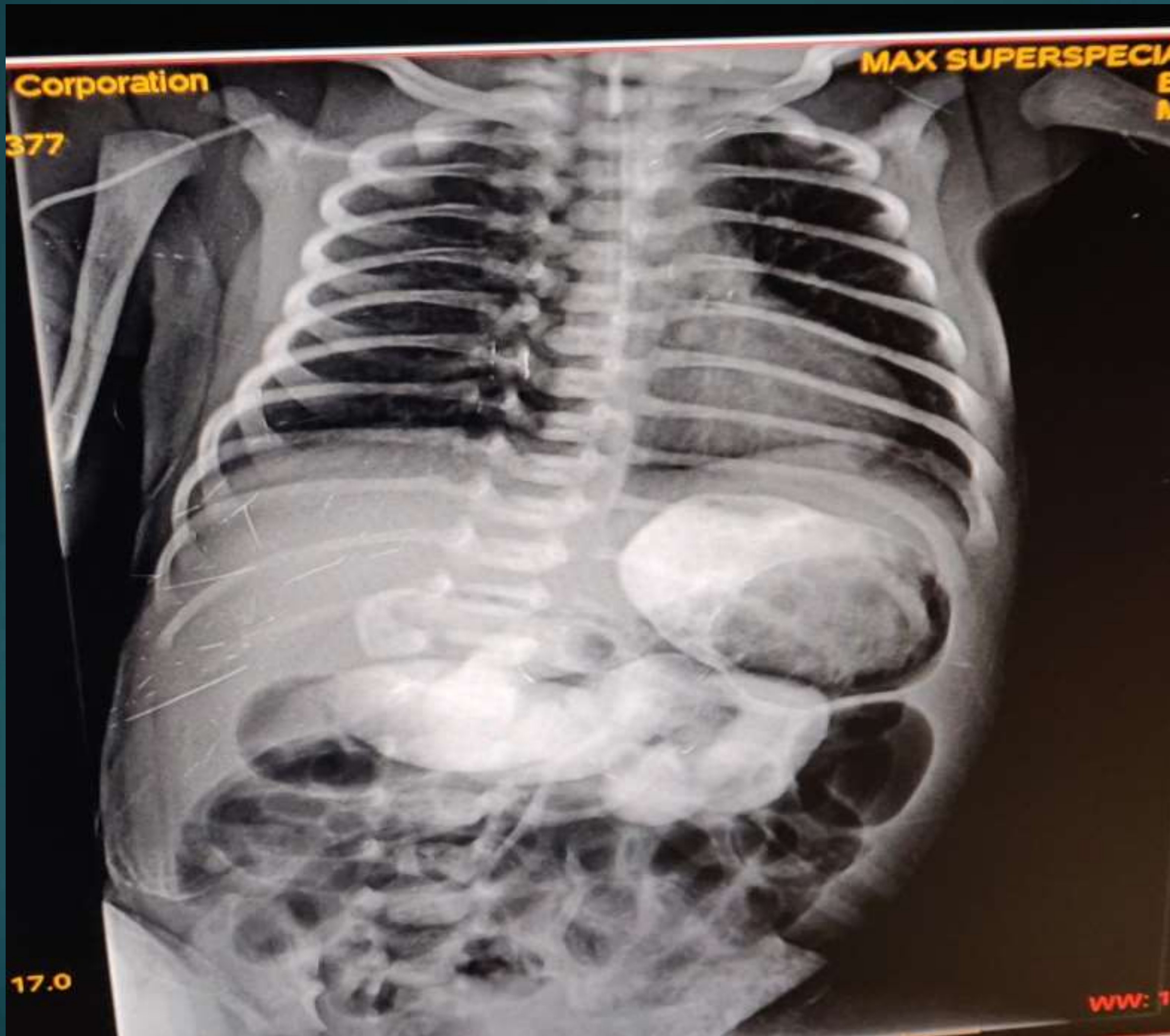
Abdominal x-ray-





Contrast study-





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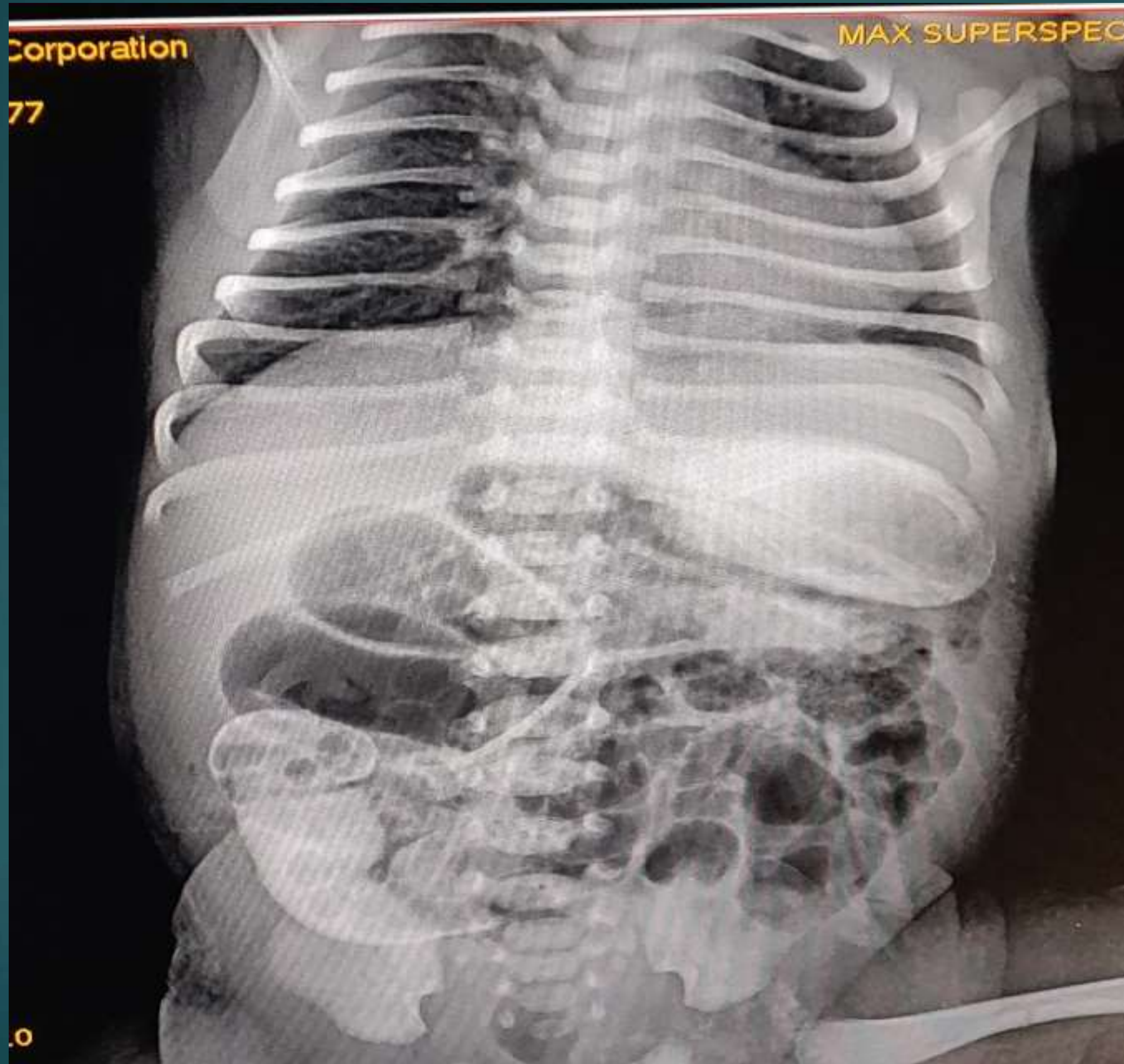

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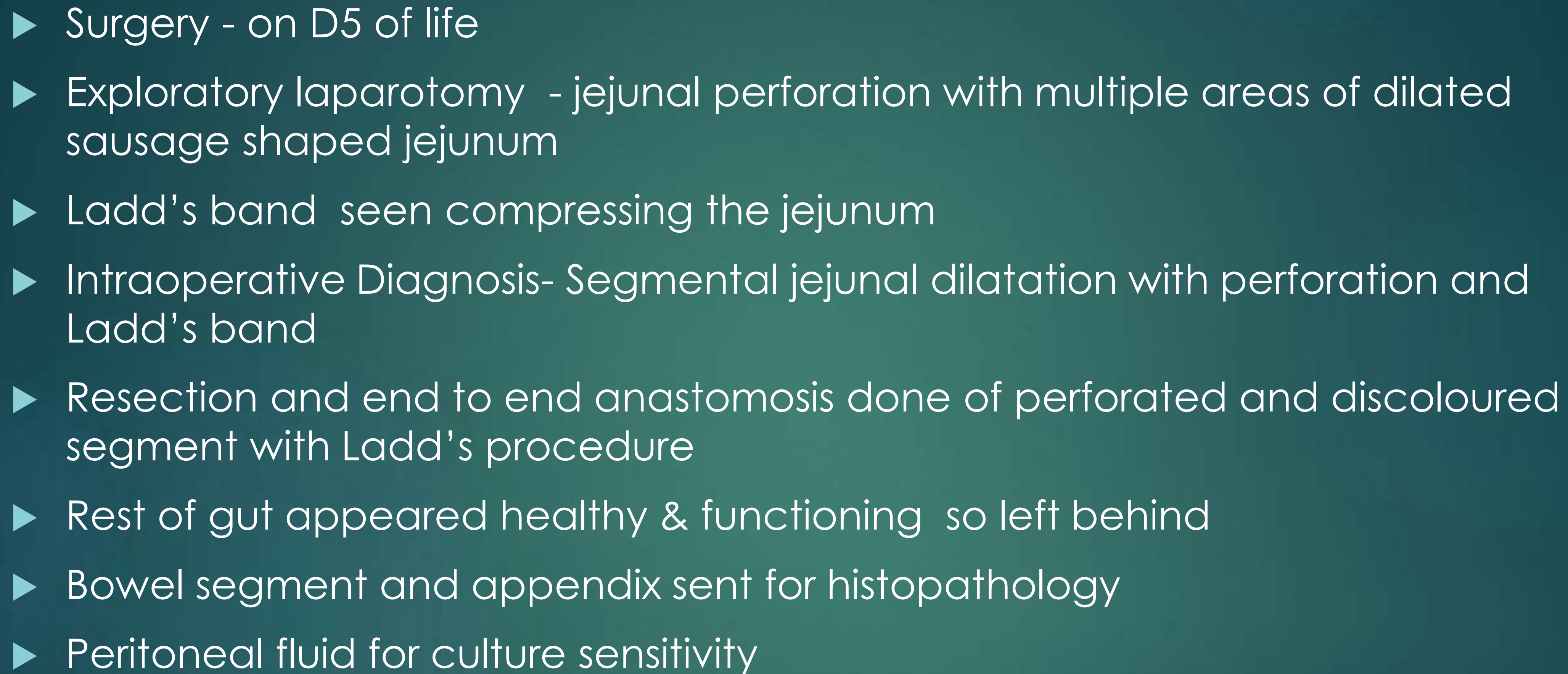
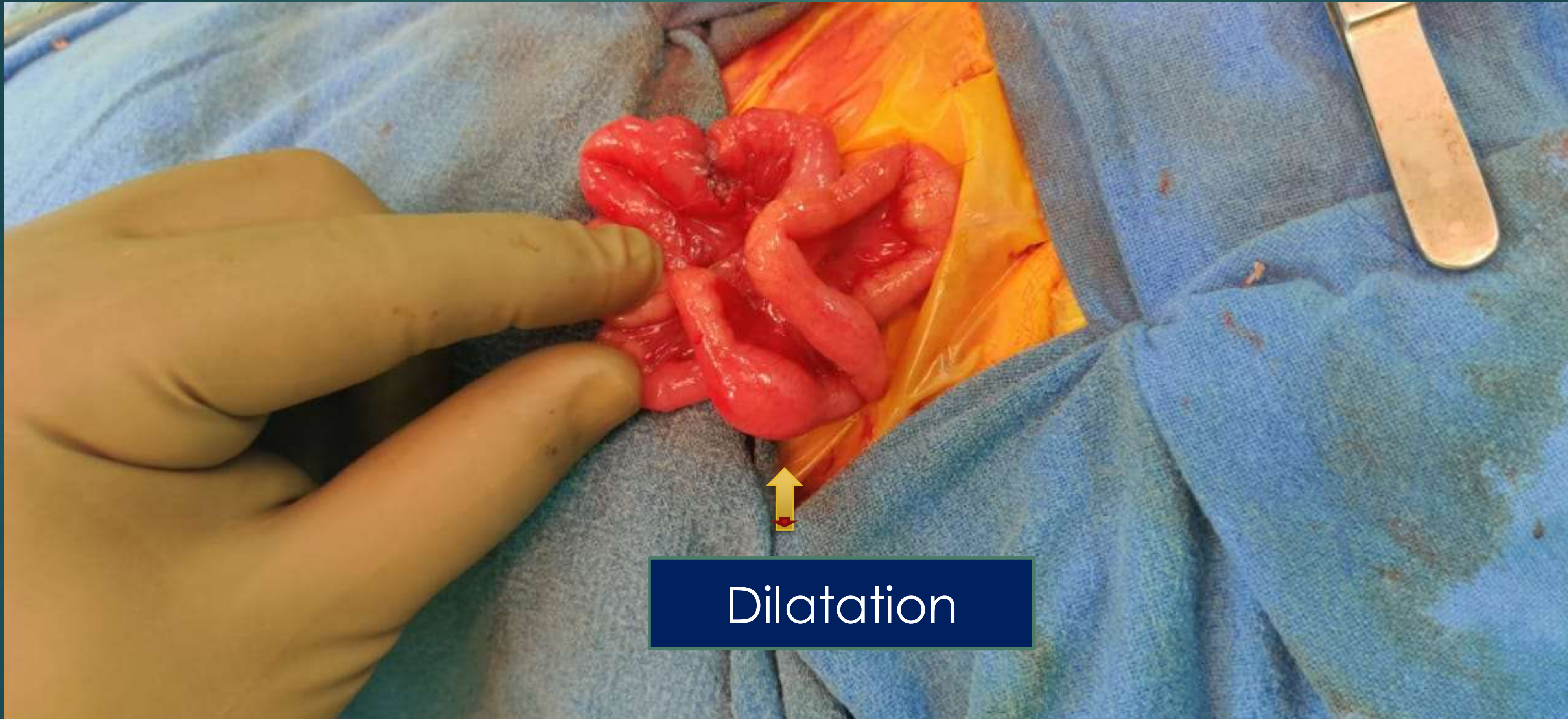


Surgery - on D5 of life
Exploratory laparotomy - jejunal perforation with multiple areas of dilated sausage shaped jejunum
Ladd's band seen compressing the jejunum
Intraoperative Diagnosis- Segmental jejunal dilatation with perforation and Ladd's band
Resection and end to end anastomosis done of perforated and discoloured segment with Ladd's procedure
Rest of gut appeared healthy & functioning so left behind
Bowel segment and appendix sent for histopathology
Peritoneal fluid for culture sensitivity

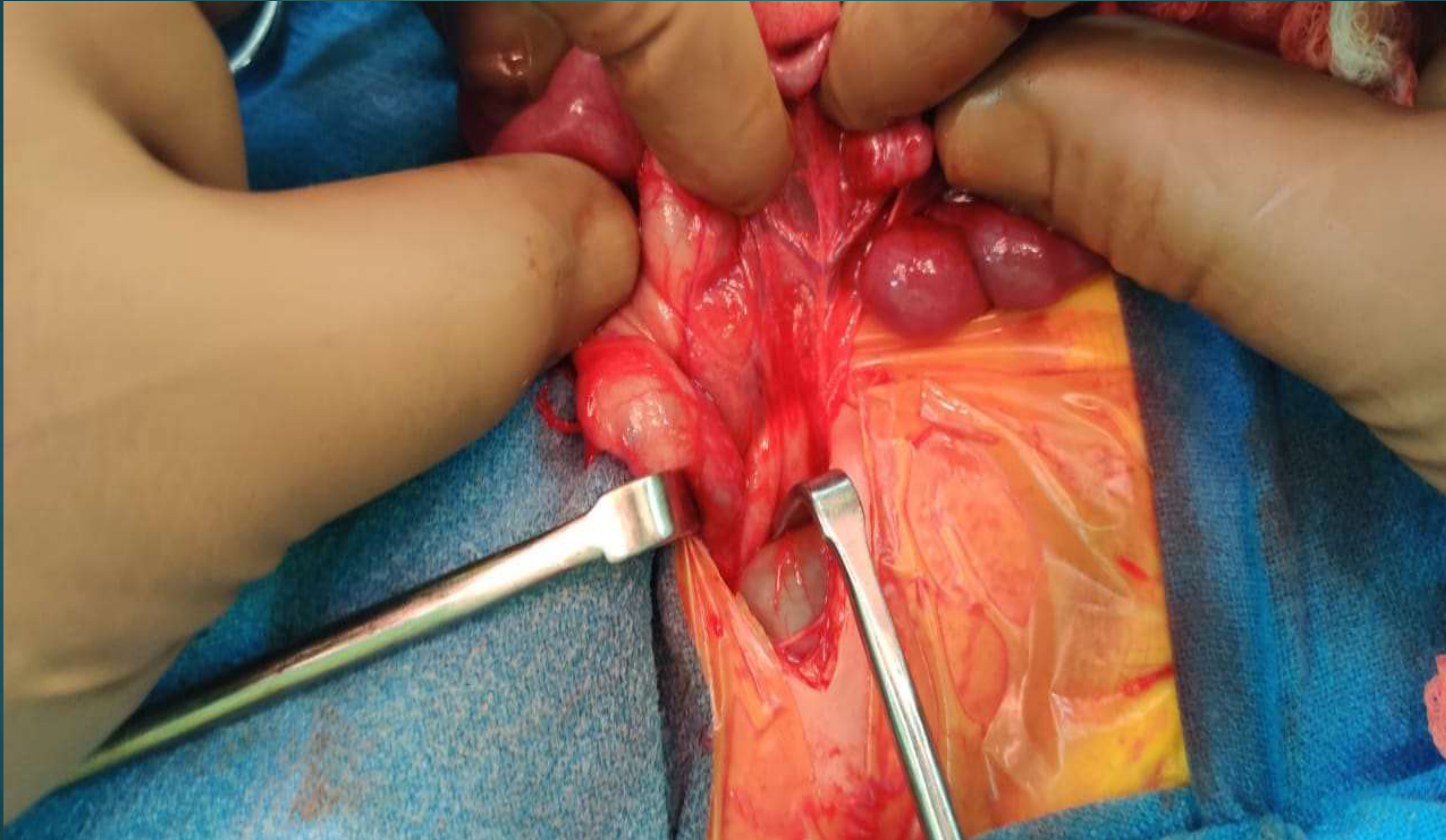
Perforation

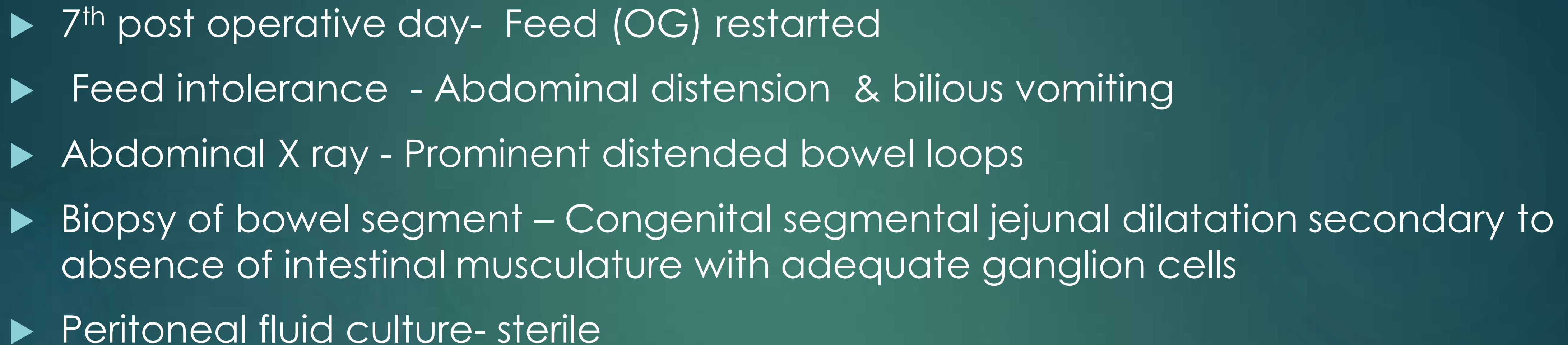
Segmental sausage shaped jejunal dilatation

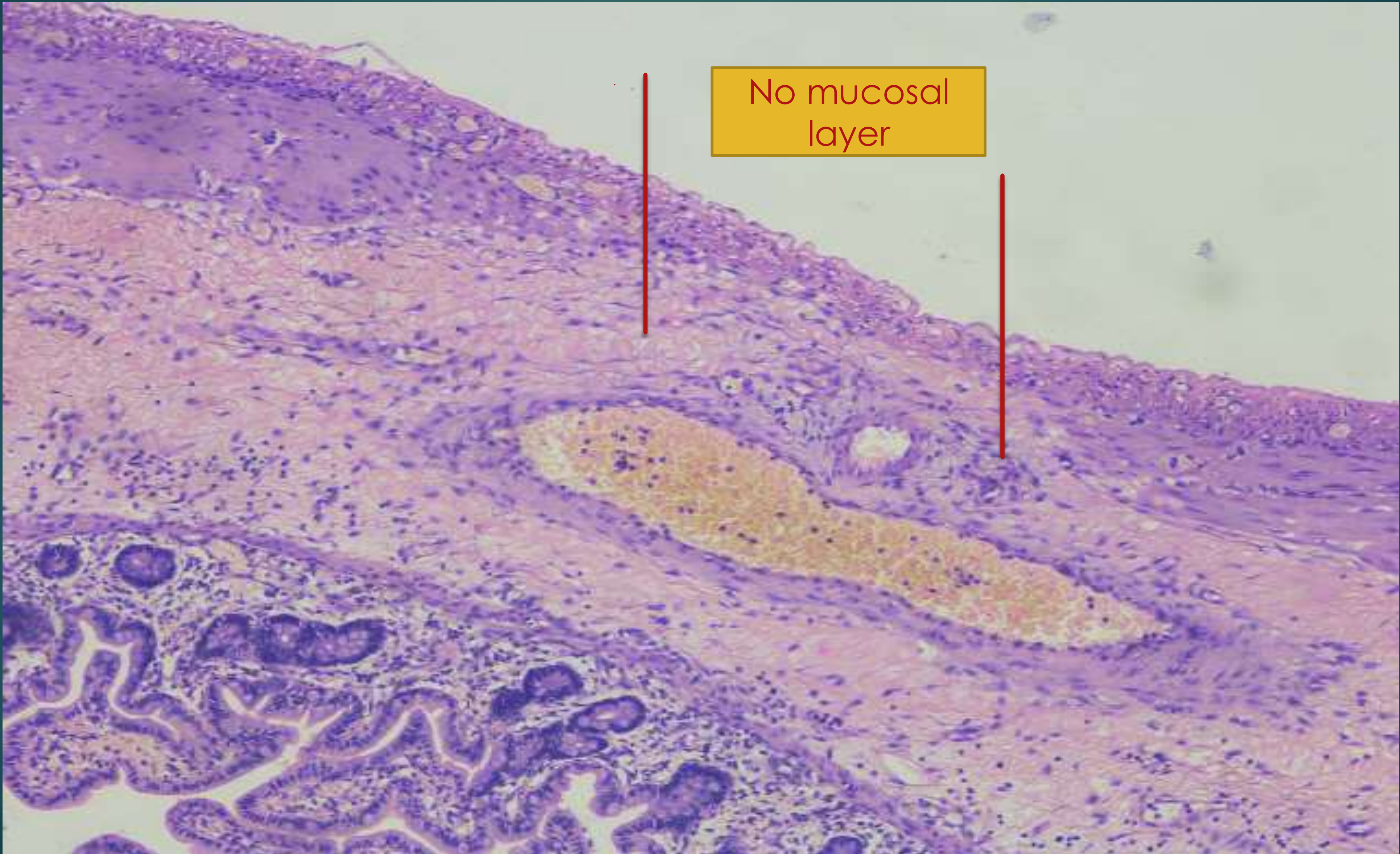


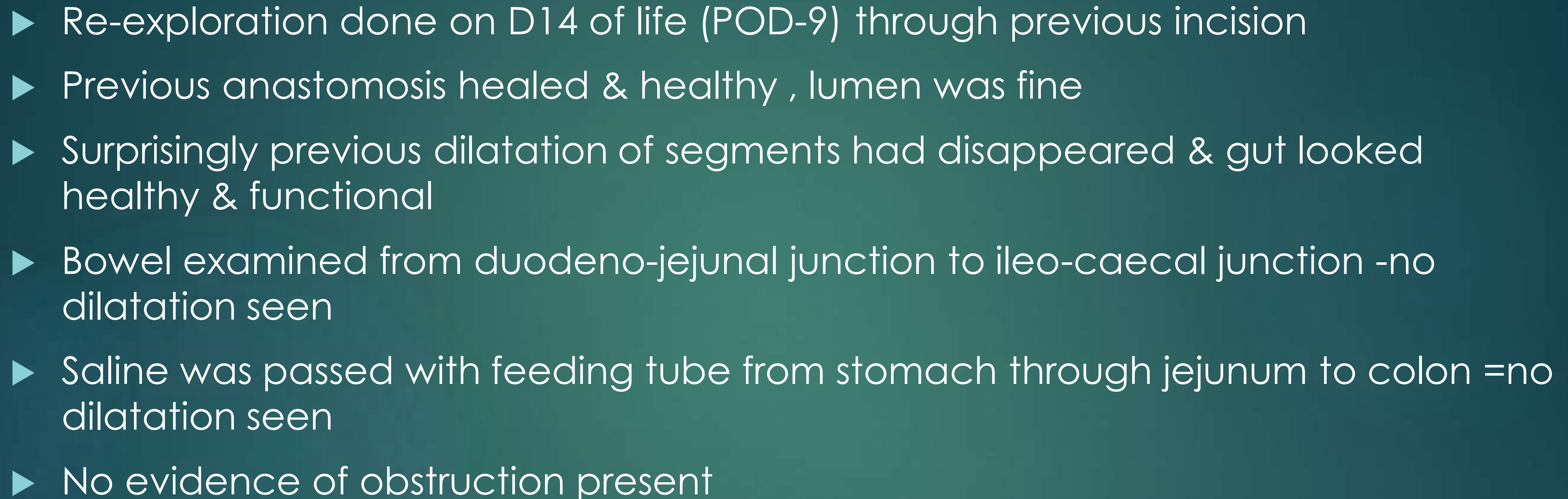
Dilatation

Ladd's bands

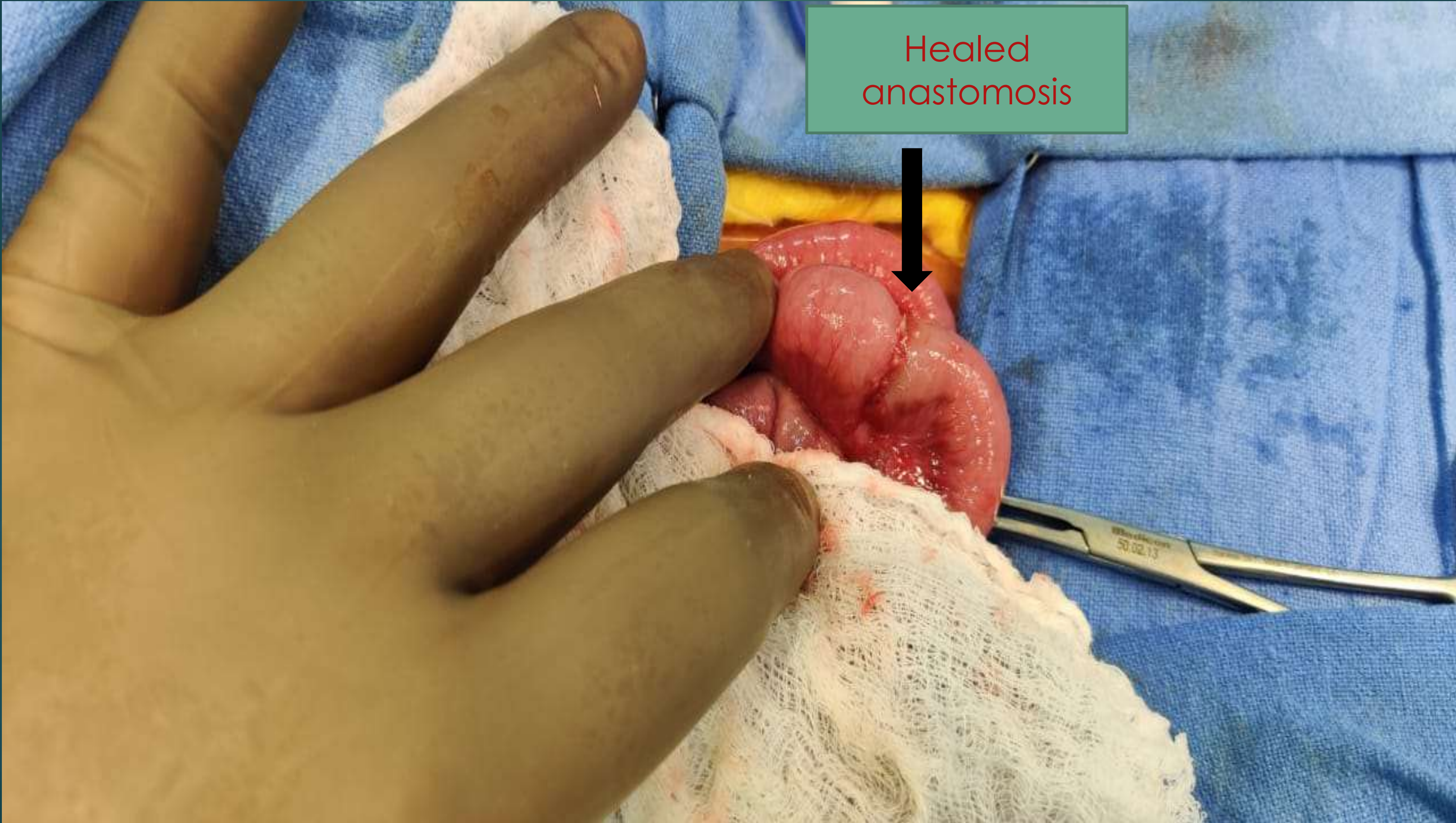


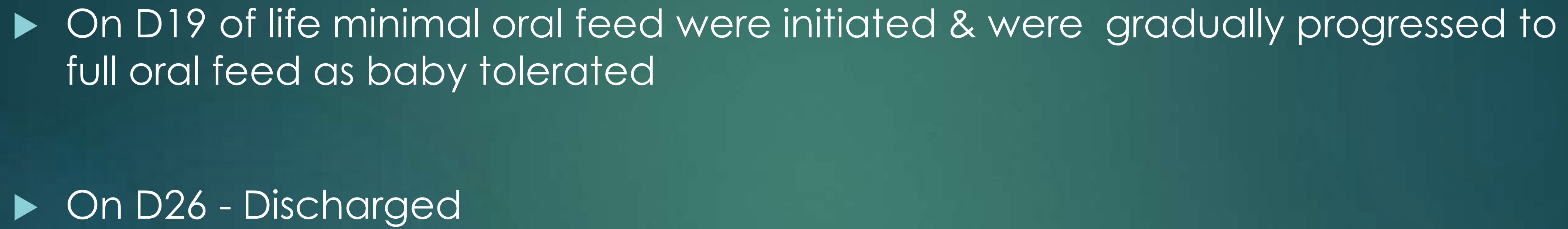

7th post operative day- Feed (OG) restarted
Feed intolerance - Abdominal distension & bilious vomiting
Abdominal X ray - Prominent distended bowel loops
Biopsy of bowel segment – Congenital segmental jejunal dilatation secondary to absence of intestinal musculature with adequate ganglion cells
Peritoneal fluid culture- sterile


No mucosal layer


Re-exploration done on D14 of life (POD-9) through previous incision
Previous anastomosis healed & healthy , lumen was fine
Surprisingly previous dilatation of segments had disappeared & gut looked healthy & functional
Bowel examined from duodeno-jejunal junction to ileo-caecal junction -no dilatation seen
Saline was passed with feeding tube from stomach through jejunum to colon =no dilatation seen
No evidence of obstruction present

Surgery 2



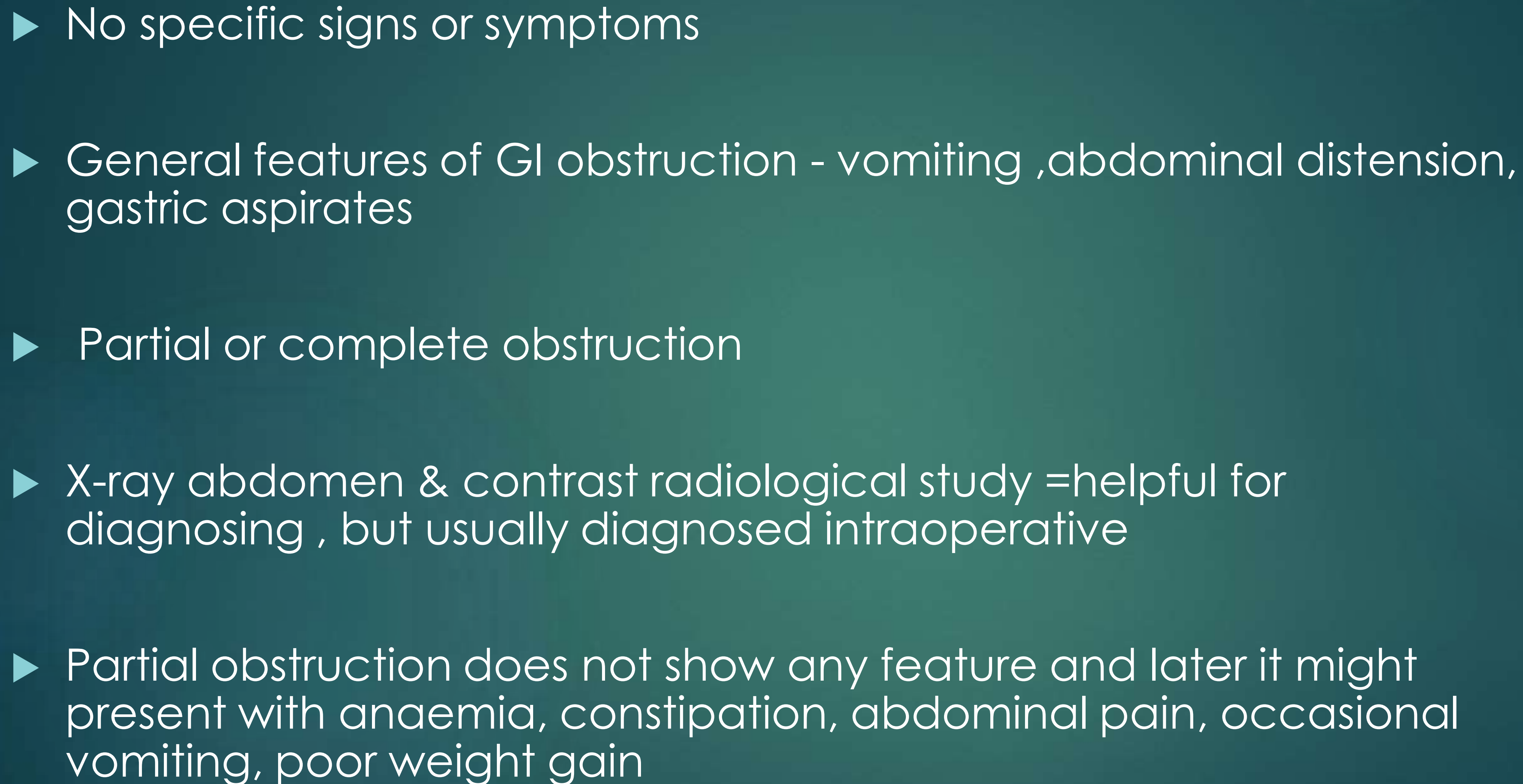

On D19 of life minimal oral feed were initiated & were gradually progressed to full oral feed as baby tolerated
On D26 - Discharged

Final Diagnosis:

- PRE TERM/RESPIRATORY DISTRESS/CONGENITAL SEGMENTAL INTESTINAL DILATATION WITH JEJUNAL PERFORATION WITH LADD'S BAND

Discussion

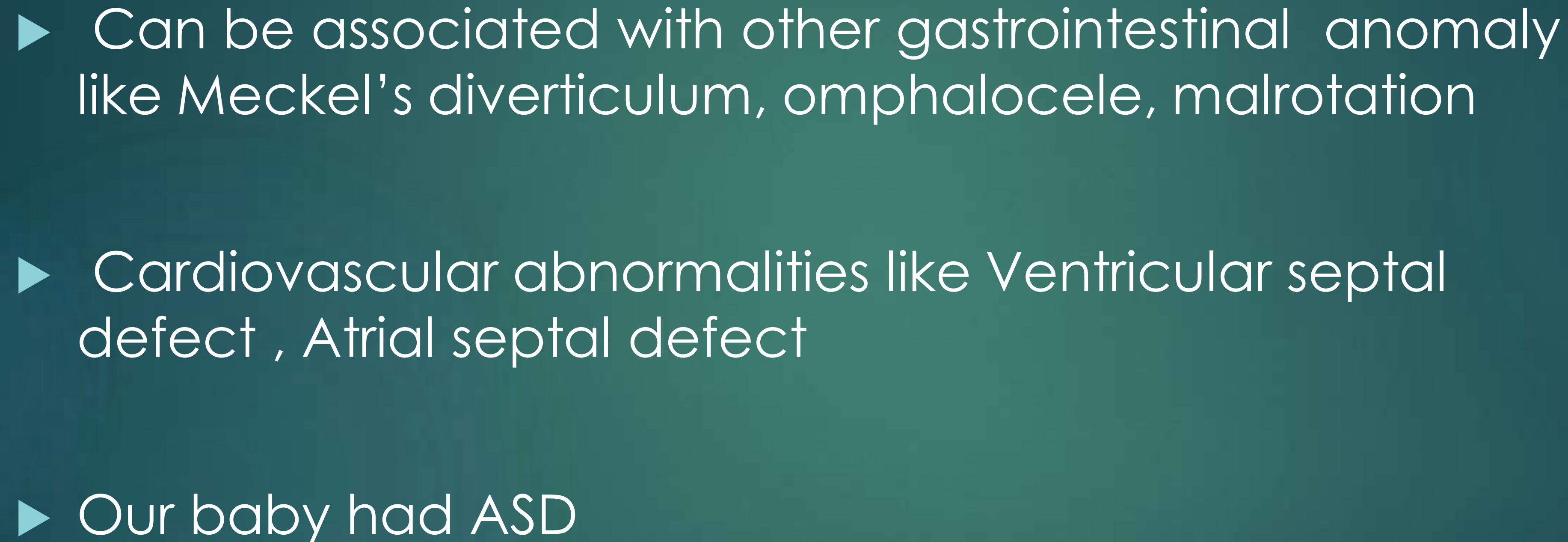
- Intestinal Obstruction is not an uncommon issue
- Segmental intestinal obstruction is a rare condition
- Can affect any part of intestine , most commonly affects Ileum
- Involvement of jejunum is rare
- Very few case has been reported in literature (About 150-200 case)


No specific signs or symptoms
General features of GI obstruction - vomiting ,abdominal distension, gastric aspirates
Partial or complete obstruction
X-ray abdomen & contrast radiological study =helpful for diagnosing , but usually diagnosed intraoperative
Partial obstruction does not show any feature and later it might present with anaemia, constipation, abdominal pain, occasional vomiting, poor weight gain

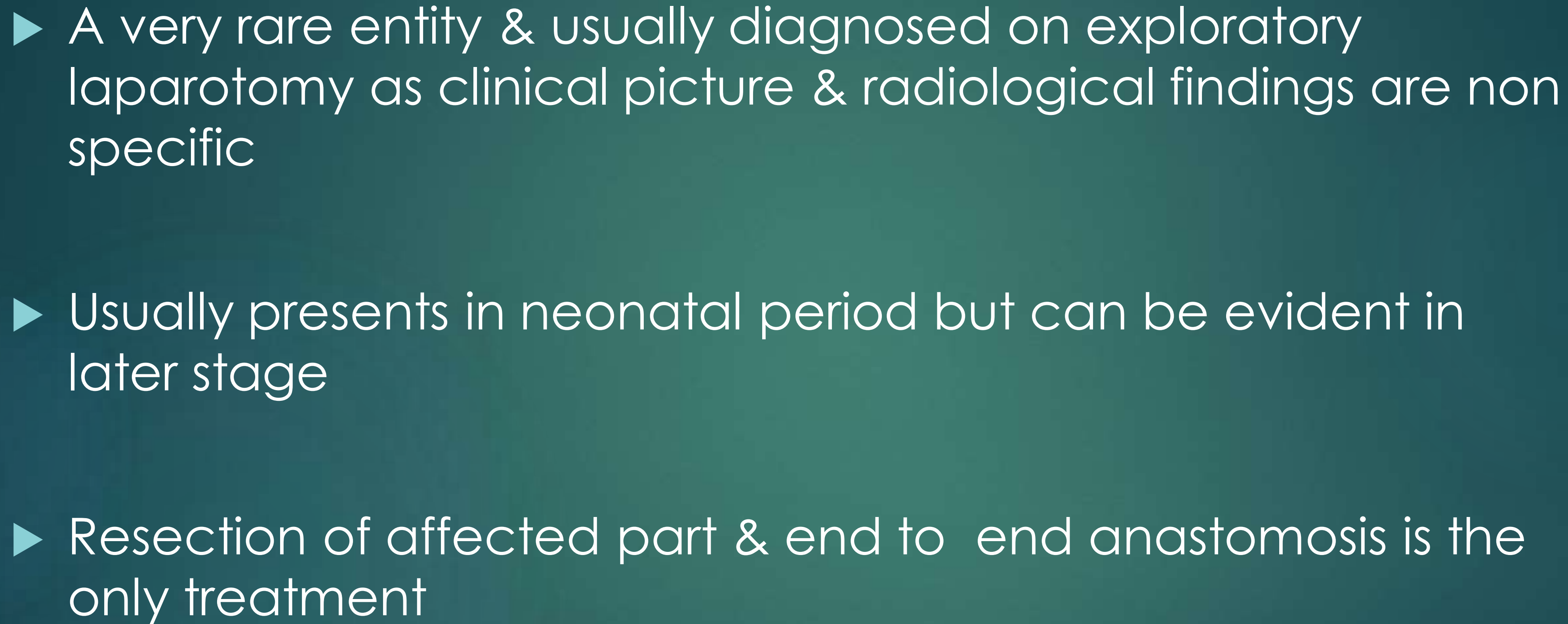
Swenson and Rathauser criteria-

- Bowel dilatation with a 3-4 fold increase in size
- Abrupt transition between dilated & normal bowel
- No intrinsic or extrinsic barrier distal to the dilatation
- Clinical picture of intestinal occlusion
- Normal neuronal plexus
- Complete recovery after resection of the affected segment

All criteria were fulfilled in our case



- Can be associated with other gastrointestinal anomaly like Meckel's diverticulum, omphalocele, malrotation
- Cardiovascular abnormalities like Ventricular septal defect , Atrial septal defect
- Our baby had ASD



- A very rare entity & usually diagnosed on exploratory laparotomy as clinical picture & radiological findings are non specific
- Usually presents in neonatal period but can be evident in later stage
- Resection of affected part & end to end anastomosis is the only treatment

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THANK YOU