SURGICAL CHALLENGES IN ELGAN-A UNIT EXPERIANCE

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MATERNAL HISTORY

- 33 years , G2E1 with IVF conception
- Twins pregnancy (DADC)
- GA-27wks 2days
- Mode of delivery-Emergency LSCS
- Indication- Sick mother with acute abdomen with intestinal obstruction was taken for Emergency LSCS with laprotomy.

ANTENATAL HISTORY

- Booked & Immunized
- Non consangious marriage
- Antenatal USG was not available . Pt was referred to our hospital from Sahjahanpur (U.P.)
- No previously known medical complications.
- Steroid : uncovered

BIRTH HISTORY

- Delivered by LSCS
- Birth weight: 1030 gms(Twin 2)/Male
- Apgar score: 8,10
- Baby CIAB and baby was immediately put on Neopuff with PEEP-6
- Admitted in nursery.

PROBLEMS ON ADMISSION IN NURSERY

- Prematurity/VLBW
- RDS (Requirement of CPAP support)
- Hypoglycemia

Management

- Incubator care
- CPAP support
- PICC inserted for TPN
- Inj caffeine
- CXR – feature of RDS

Management

- Antibiotics started.
- Tropic feeds started on day2 (only EBM).
- Phototherapy started on day 2

Further course

- Baby develop mild abdominal distension on day 3 with bilious aspirate.
- Septic screen repeated.
- On day 4 abdominal distension increased .
- X- ray abdomen (cross table) showing features of intestinal perforation(Free gas in peritoneum)

The Dilemma ; Extreme Prematurity

- Surgical opinion taken and in view of extreme prematurity and unstable haemodynamics, laprotomy was debatable.

- Peritoneal drainage tube was put on day 5 and Peritoneal fluid culture positive with E. Coli, sensitive to Colistin.

Risk that was worth taking

- Parents were informed about this high risk situation and impending mortality if we further wait for laprotomy.

- Exploratory laprotomy with ileostomy done on day 7 of birth.

Surprise awaiting for Pediatric surgeon

- Laprotomy revealed atretic ileal segment with proximal perforation.

- Anastomosis was attempted but intestine was too fragile to hold on end to end suturing so ileostomy was done.

Post Op Care: The Toughest Part

- After surgery TPN continued.
- Blood parameters improved.
- OG feed started after 7 days POD.
- After one month of ileostomy baby gradually develop loose stool that containing milk product.

  ?Antibiotic induced

  ?? Secondary sepsis.

Difficulty in Healing

- The thin skin around ileostomy site was facing healing issues and site was frequently soaked with loose stools.

- Careful cleaning and wound care was practiced for a long time (Zn-oxide cream, Paraffin gauze, Neonatal ileostomy bag usage).

- Ileal prolapsed with 10-12 cm of length.

Planned for early ileostomy closure

- Baby was reviewed after 2 month for stool consistency which was still loose with ileal prolapsed.

- Earlier baby was planned for discharge and planned for end to end closure on follow up. But baby was not gaining any weight even on fluid rate of 300 ml/kg/day.

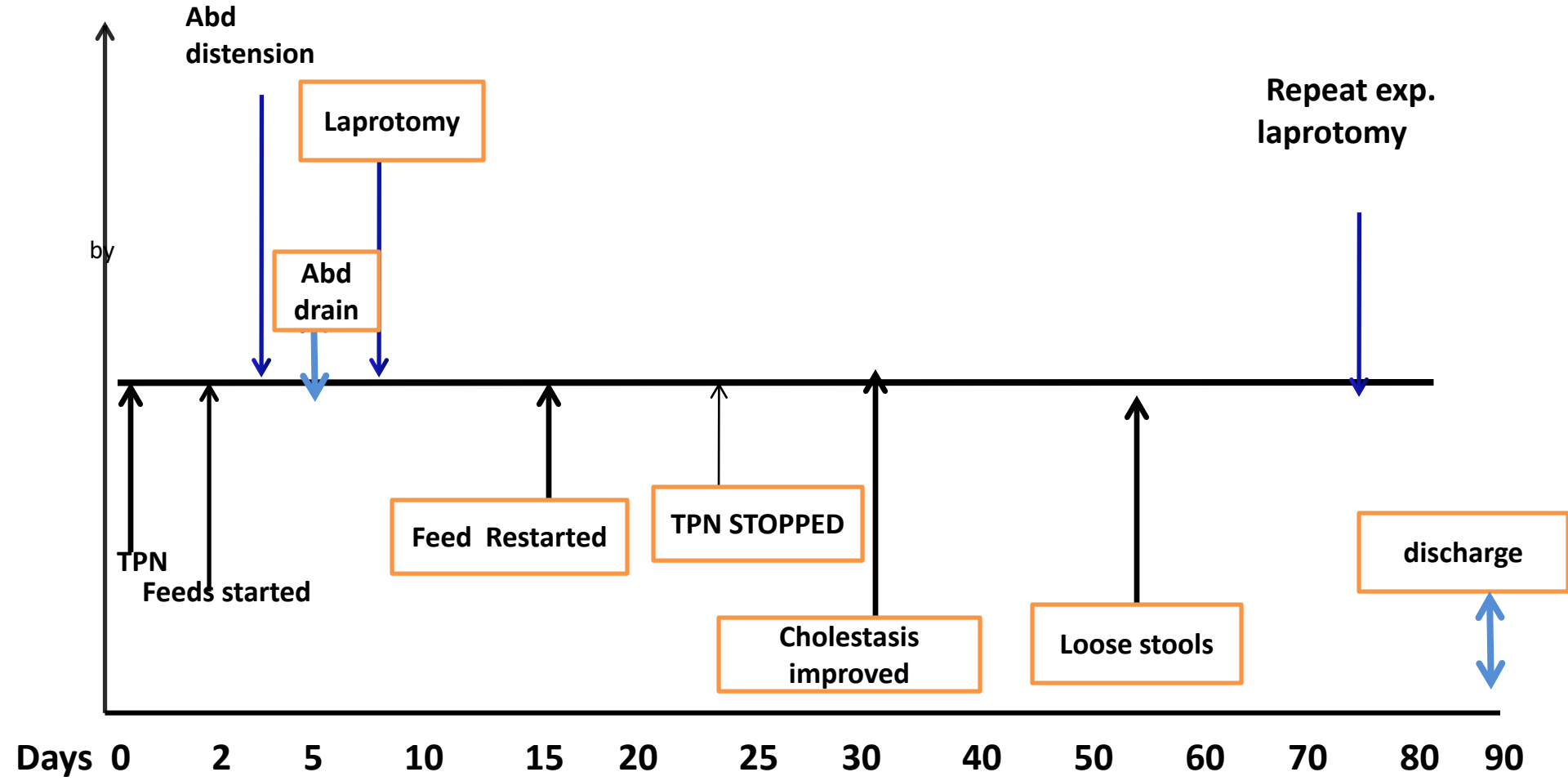
Early anastomosis done

- Contrast study was done for patency of distal intestinal tract and considered for early end to end anastomosis.
- Laprotomy with end to end anastomosis was done at 72 days of life.
- Gastrograffin study done after one week of anastomosis → no leakage
- Gradually OG feed restarted and loose stool subside.

Minor Complications Encountered

- USG cranium: mild Periventricular hyper- echogenicity.
- Repeat USG cranium: revealed well defined echogenicity in Lt. Thalamo-capsular region suggestive of IPH (7x6 mm), small intraventricular hemorrhage.
- Cholestasis that resolved after stoppage of TPN

CLINICAL COURSE (D1-D90)



Condition at discharge

- Baby discharge at 40weeks 01days by CGA. Weight- 1820gm ,Length- 42cm, HC-30.5 cm.
- General condition stable.
- Cry & activity good.
- Accepting and tolerating feed
- Stool and urine passed regularly.
- Surgical wound site healthy.

CHALLENGES DURING MANEGMENT

- Extreme prematurity
- RDS
- Severe sepsis
- Prolapse of small intestine.
- Difficult wound healing
- Prolonged diarrhea
- Cholestasis due to prolong TPN

Discussion

- Incidence 1/1500
- 50% atresia in jejunum or ileum
- Passage of meconium not exclude atresia
- Antenatal USG can detect ileal atresia up to 50%

Discussion

- ELBW infants who undergo operation for NEC or IP have a mortality approximately 50%.
- In smaller babies and those in an unstable condition to tolerate laprotomy, PD (Peritoneal drainage) was used as a temporizing procedure. mortality was still high, ranging from 20% to 50%

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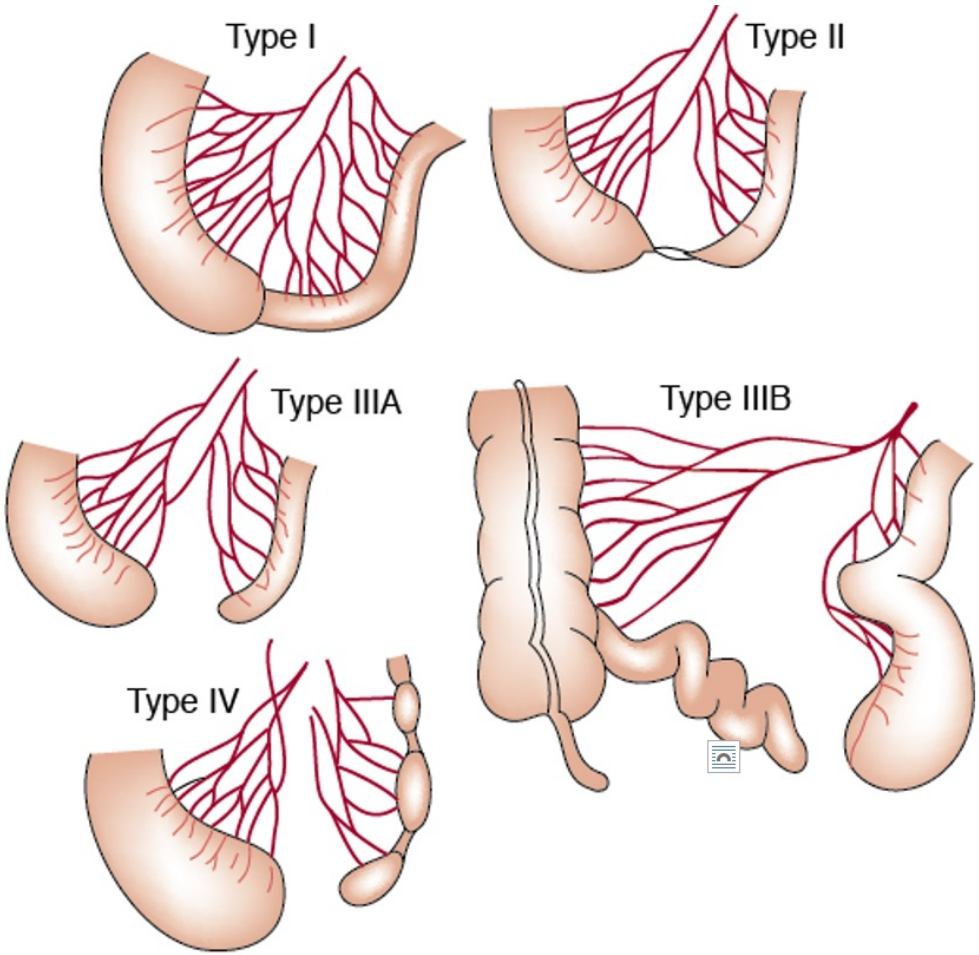
TYPES



Type 1- Mucosal atresia with intact bowel wall and mesentery

Type 2- Blind end joined by a fibrous cord

Type 3a – Atresia with mesentric gap

Type3b- Apple peel deformity

Type 4- Multiple

Take home Message

- Intestinal perforation in extreme prematurity can be operated early in resourceful setting. So early referral to tertiary level should be done.

- Early closure with end to end anastomosis may prevent unnecessary complication.

THANK YOU