Anorectal injuries; management outcomes and prognostic factors

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Injuries to the anus and rectum are common surgical problems.

Injuries of the anorectum had a fatality about 90% during the American Civil War.

Nowadays mortality rate (3-6%).

Because of the risk of incontinence & anal stenosis following anorectal injury, appropriate treatment should be done.

Fargo et al, 2012
However optimal management of anorectal injuries is still a matter of dilemma and debate.

Anorectal injuries may vary from minimal laceration to avulsion and may be extra and intraperitoneal.

Samuk et al, 2015
The most important factors to determine treatment

- General physical condition
- Mechanism of the injury
- The interval between the injury and operative intervention
- Shock or hemodynamic instability
- Peritoneal contamination
- Injury or avulsion of the mesentery of the rectum
- Multiple organ injury
- Site of the injury
- Degree and grade of injury
- Sphincter affection

* Kim, Min Ju., 2015
This report reviews the experience in managing these types of injuries in Sohag University Hospitals

Provides recommendations for proper management
Study design and population

- Prospective study for anorectal injuries patients
- 32 patients
- At Sohag University Hospitals
- Period between October 2016 and October 2017,
- At least 3 months follow-up
- Data collected and statistical analysis was done by SPSS 22 and Excel 2010.
Outcomes

* Etiology.
* Severity.
* Mode of trauma.
* Type of anorectal injuries.
* Management outcomes (infection, healing, faecal incontinence, survival and faecal fistula).
As regard the etiology

- Road traffic accident: 25%
- Falling from height: 22%
- Firearm: 19%
- Iatrogenic: 16%
- Child birth trauma: 9%
- Sexual assault: 6%
- Ingestion of hard food: 3%
- Sexual assault: 6%
- Ingestion of hard food: 3%
- Sexual assault: 6%
Bad general conditions

Good general conditions

Percentage

Type of procedures

General conditions

Conservative
Repair of anal...
Repair of anal wound
Repair of rectal injury
Repair of serosal tear
Closure of the distal...
Case presentation: female patient 4 years falling from height on sharp object with marked injury to the anal sphincter with vaginal and perineal injury .....repair + pelvic loop colostomy closure 2 months
One week post op.
1 month later
4-month picture
no incontinence
Case presentation(2):

- Male child 4 years,
- Polytraumatized; RTA
- Anorectal injury & massive destruction to anal sphincter with perineal, gluteal, groin, and scrotum
- Fracture pelvis
- Repair + pelvic loop colostomy
- Faecal incontinence…….. Anal continence center
Case presentation(3):

- Male, 35 years, RTA
- Anorectal injury with partial injury to the anal sphincter with perineal injury
- Repair + rectal tube
Case presentation(4):

* Female
* 35 years,
* Iatrogenic D&C
* Full thickness less than 25% circumference antimesenteric rectal injury
* Repair
Case presentation (5):

- Male
- 22 years, RTA
- Anorectal injury with massive anal sphincter destruction
- Repair + pelvic loop colostomy.
Case presentation (6)

- Male
- 4 years,
- Anorectal injury with no anal sphincter injury due to falling on sharp object.
- Repair
Case presentation (7):

- Female
- 35 years,
- Iatrogenic rectal injury
- During excision of broad ligament fibroid
- Repair
Case presentation (8):

- Male neonate
- 20 days age diagnosed clinically as HSD
- Iatrogenic full thickness rectal laceration with mesenteric affection
- By rectal tube in wash
- Hartmann’s procedure
Case presentation (9):

- Male, 26 years, RTA
- Heamothorax
- Massive degloved skin over the chest, abdomen, scrotum, penis, right thigh and perineum
- Anorectal injury
- Massive anal sphincter destruction
- Perineal, gluteal, groin, and scrotal injury
Conclusions

- Early management results in good prognosis and this is extremely important in lowering the mortality and morbidity.

- Advanced Trauma Life Support (ATLS) principles should be applied for all anorectal injuries.
Based on our review, primary repair with diverting colostomy in patients with destructive anorectal injuries.

Patients with an isolated intraperitoneal rectal injury or injury to the anus without significant soft tissue loss or sphincter destruction may not need a colostomy.
* Management should be individually managed in a separable maneuver with patient variation.

* Laparoscopy in selected cases better to be done to exclude intraperitoneal rectal injury in suspected cases and preferred than laparotomy.
* We recommend further studies with large numbers are necessary to identify modifiable factors to improve morbidity after traumatic anorectal injuries.

* Raising campaigns to educate people about accidents and their catastrophes is essential as prevention is better than cure.
Special thanks
