





# Anorectal injuries; management outcomes and prognostic factors

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#### Introduction

- \* 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

#### Introduction

\* 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

### objectives

\* This report reviews the experience in managing these types of injuries in Sohag University Hospitals

\* Provides recommendations for proper management

### Study design and population

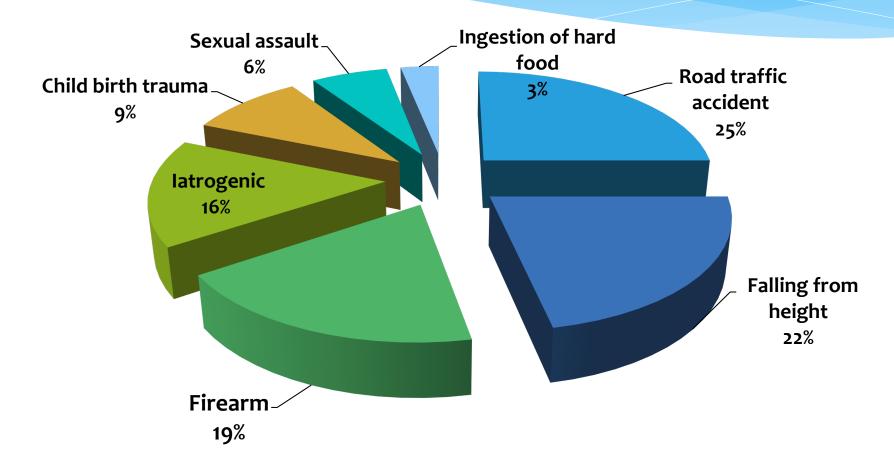
- \* Prospective study for anorectal injuries patients
- \* 32 patients
- \* At Sohag University Hospitals
- \* Period between October 2016 and October 2017,
- \* At least 3 months follow-up
- \* Data collected and statistical analysis was don by SPSS 22 and Excel 2010.

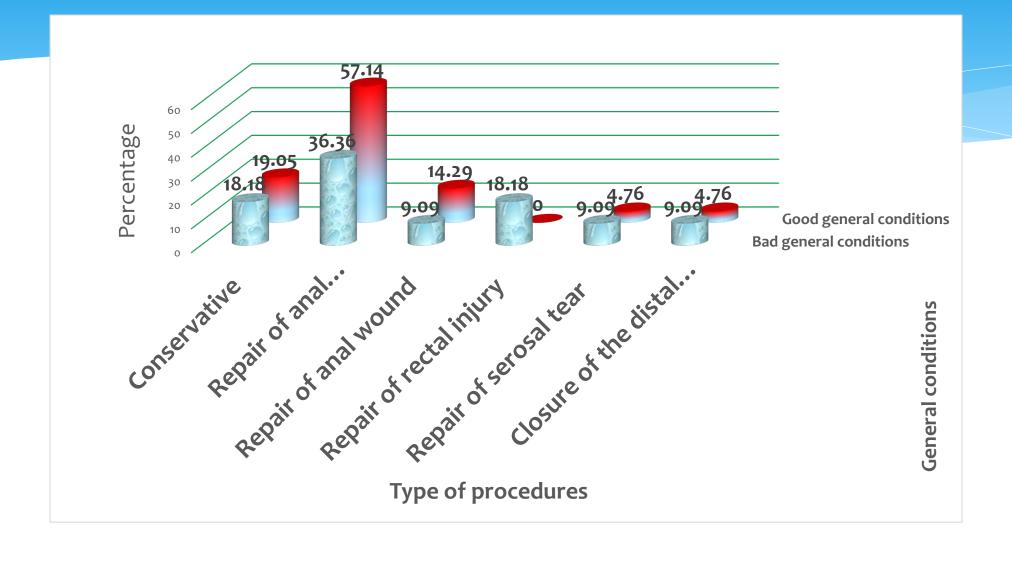
#### Outcomes

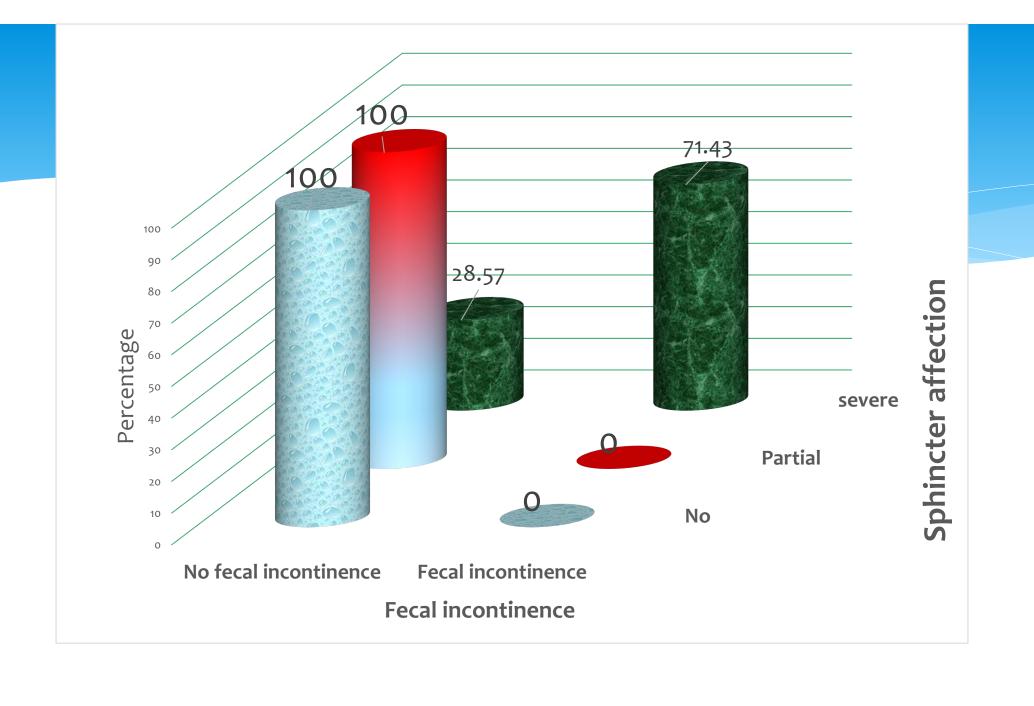
- \* Etiology.
- \* Severity.
- \* Mode of trauma.
- \* Type of anorectal injuries.
- \* Management outcomes (infection, healing, faecal incontinence, survival and faecal fistula).

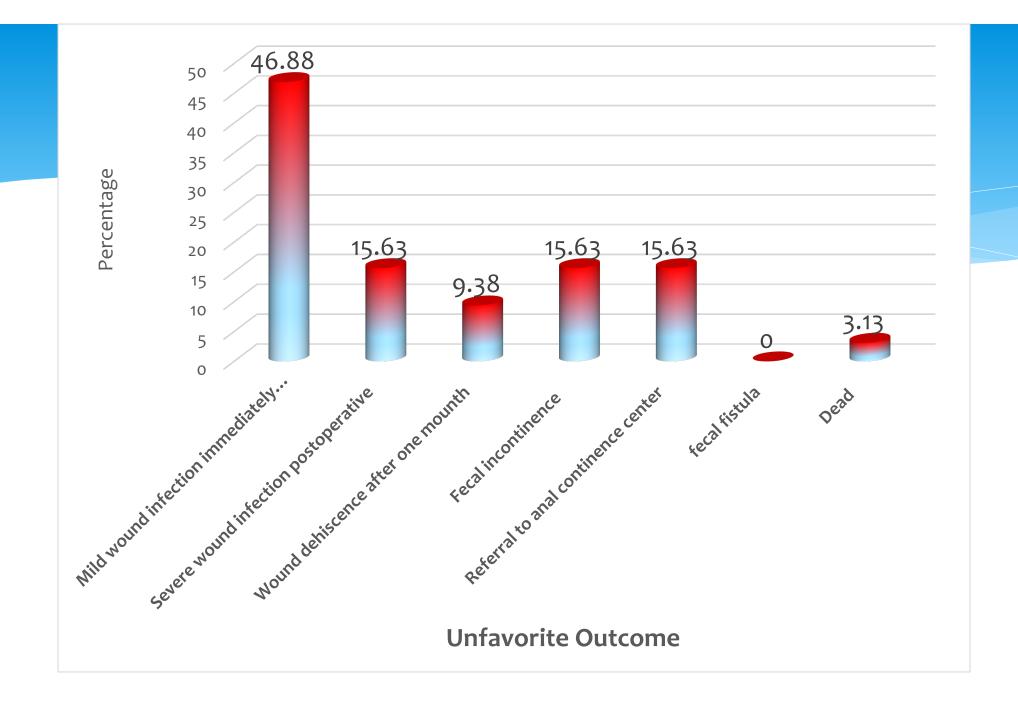
#### Results

#### \* As regard the etiology











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



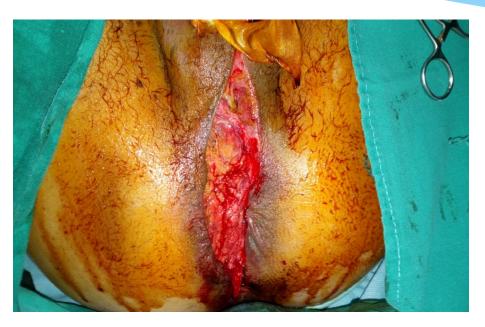
- \* Case presentation(2):
- \* Male child 4 years,
- \* Polytruamatized; RTA
- \* Anorectal injury & massive destruction to anal sphincter with perineal, gluteal, groin, and scrotum
- \* Fracture pelvis
- \* Repair + pelvic loop colostomy
- \* Faecal incontinence...... Anal continence center







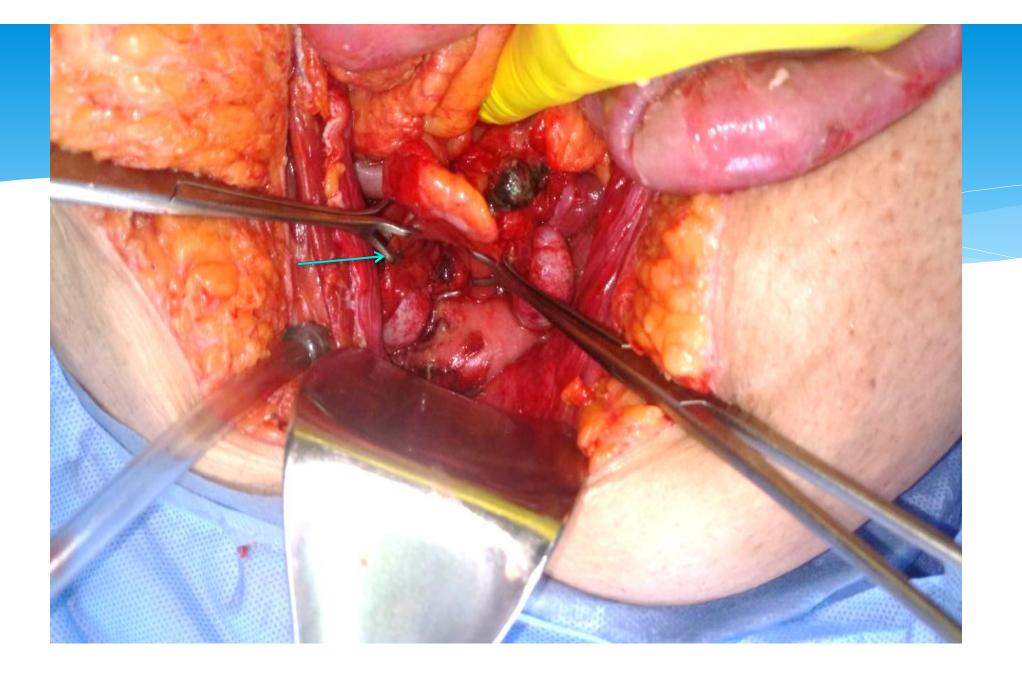
- \* Case presentation(3):
- \* Male, 35 years, RTA
- \* Anorectal injury with partial injury to the anal sphincter with perineal injury
- \* Repair + rectal tube

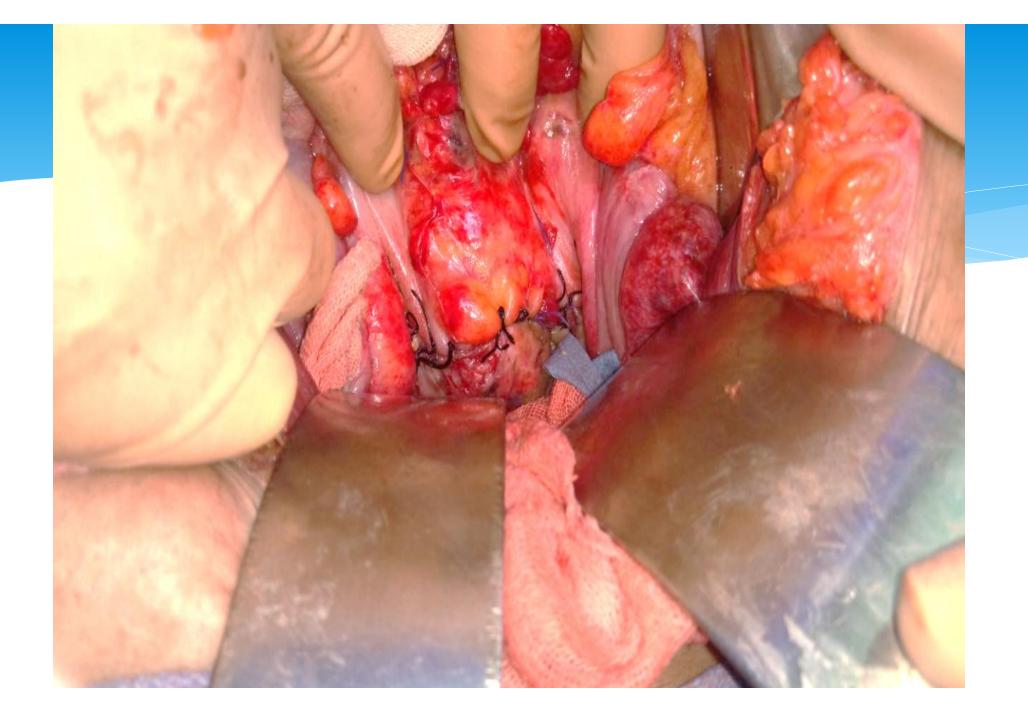




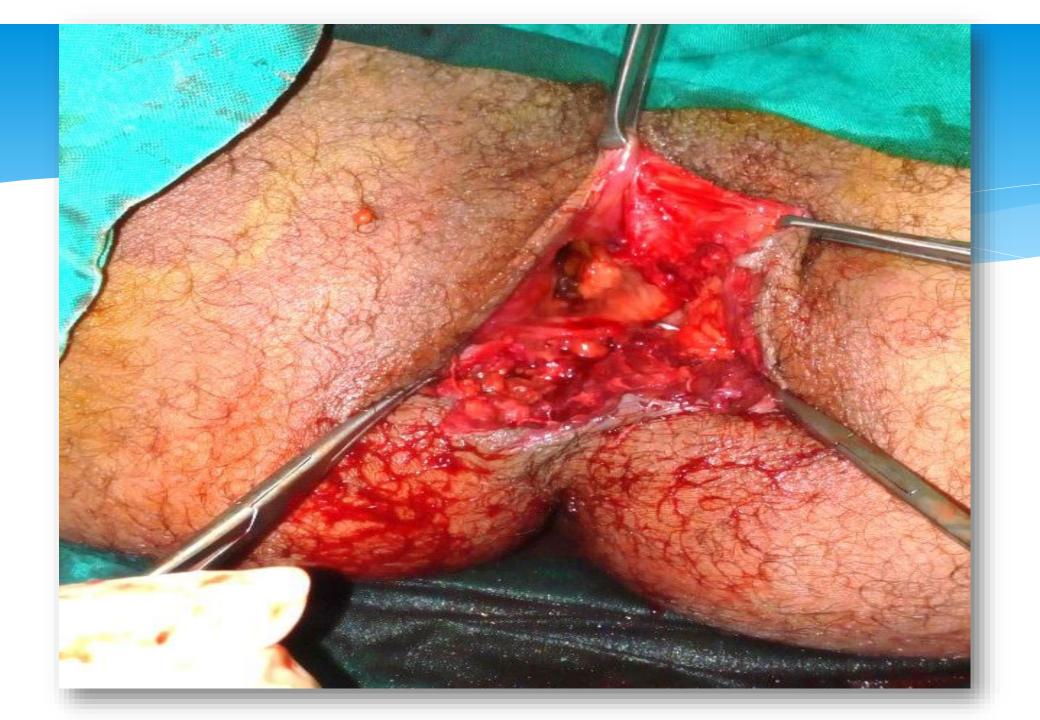
#### Case presentation(4):

- \* Female
- \* 35 years,
- \* latrogenic 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)

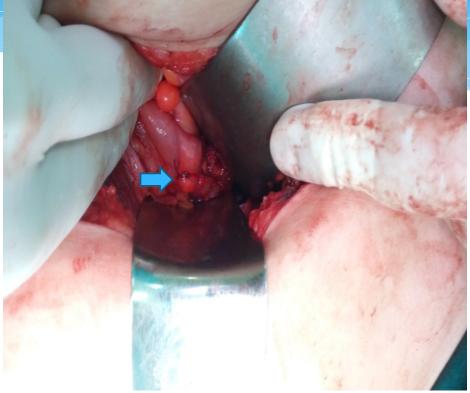
- \* Male
- \* 4 years,
- \* Anorectal injury with no anal sphincter injury due to falling on sharp object.
- \* Repair



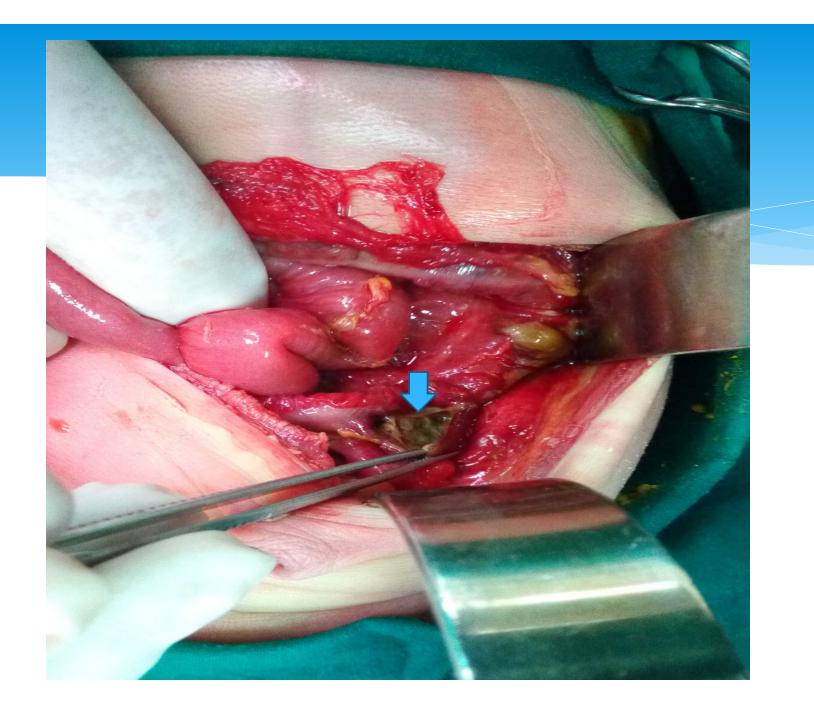


- \* Case presentation (7):
- \* Female
- \* 35 years,
- \* latrogenic rectal injury
- \* During excision of broad ligament fibroid
- \* Repair



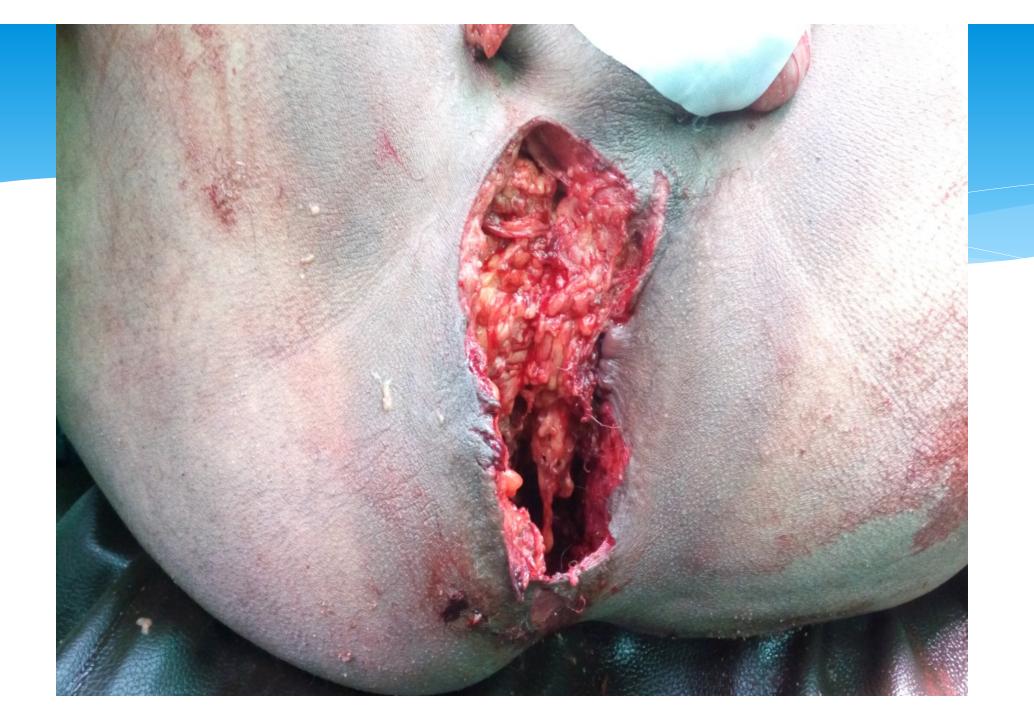


- \* Case presentation (8):
- \* Male neonate
- \* 20 days age diagnosed clinically as HSD
- \* latrogenic full thickness rectal laceration with mesenteric affection
- \* By rectal tube in wash
- \* Hartmann's procedure



- \* 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











## Conclusion

\* 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



## References

- \* Fargo, Matthew V., and Kelly M. Latimer. "Evaluation and management of common anorectal conditions." American family physician 85.6 (2012).
- \* Samuk, Inbal, et al. "Anorectal injuries in children: a 20-year experience in two centers." *Pediatric surgery international* 31.9 (2015): 815-819.
- \* Kim, Min Ju. "Transrectal ultrasonography of anorectal diseases: advantages and disadvantages." *Ultrasonography* 34.1 (2015): 19.