

Sugar in the Reduction of Incarcerated Prolapsed Bowel

Report of Two Cases

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Incarcerated, prolapsed rectum, colostomies, and ileostomies, when viable, may be reduced using ordinary table sugar. The placing of sugar granules on the incarcerated bowel results in a decrease in tissue edema and spontaneous bowel reduction. The technique, case reports, and a review of the literature are herein reported. [Key words: Sugar; Incarcerated; Colostomy; Ileostomy; Rectal prolapse; Hemorrhoidal prolapse; Stomal prolapse; Surgical technique]

Idiopathic rectal procidentia can be associated with incarceration and ischemia of the prolapsed segment requiring emergency bowel resection. Colostomy and ileostomy prolapse may similarly become incarcerated with the development of progressive edema and eventual ischemia. On occasion, the prolapsed segment is irreducible, yet viable. The successful reduction of such a condition may require a general anesthetic and if reduction proves unsuccessful, emergency resection must be performed. The sprinkling of the edematous irreducible prolapsed bowel with table sugar, sucrose, results in a dramatic decrease in bowel edema and the incarcerated segment easily reduces. Resection can then be electively performed after a full mechanical and antibiotic bowel preparation as indicated. To our knowledge there has been no previous report in the literature of this reduction technique.

REPORT OF CASES

Patient 1

A 75-year-old female was referred to our office with a 3-day history of irreducible rectal prolapse. She denied fever, chills, and obstructive bowel symptoms, but complained of acute urinary retention. The patient related a history of increased constipation, manually reducible "hemorrhoids," and blood on toilet tissue for 3 months while taking Sinequan for chronic depression. She sought medical attention from her primary care physician after being unable to manually reduce her "hemorrhoids" for 72 hours. An attempt at reduction in his office proved unsuccessful, and the woman was referred for surgical evaluation. The patient was placed in the prone jackknife position and on examination was found to have an edematous, friable, 8-cm, full-thickness, irreducible, rectal prolapse (Fig. 1). Two packets of ordinary table sugar were placed on the protuberant viable rectal segment and the edema dramatically decreased resulting in spontaneous reduction of the procidentia (Figs. 2 and 3). The patient was placed on bulk laxatives and discharged from the office. Subsequent proctosigmoidoscopy and barium enema were normal. After experiencing several more episodes of self-reducing prolapse, the patient underwent uncomplicated perineal proctosigmoidectomy.

Patient 2

An elderly woman with long-standing Brooke ileostomy after total proctectomy for ulcerative colitis presented with a 4-day history of irreducible

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Fig. 1. Incarcerated rectal prolapse.



Fig. 3. Spontaneous reduction of rectal prolapse after sugar application.

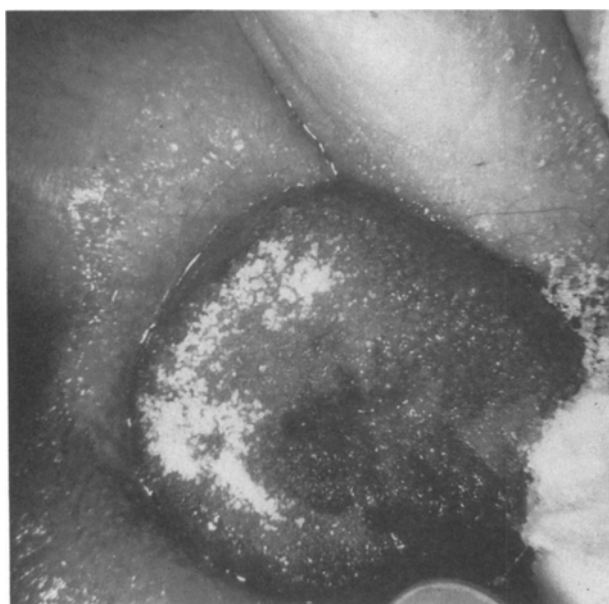


Fig. 2. Sugar granules on incarcerated rectal prolapse.

ileostomy prolapse. Her ostomy appliance required a large metal ring, which was cutting deeply into the prolapsed, edematous, dusky ileostomy. Manual reduction techniques failed. Attempts to remove the thick metal ring failed. Surgical consultation was requested. Four packets of sugar applied to the prolapsed stoma quickly reduced the edema and allowed easy manual reduction. The metal ring was removed and the ileostomy lacera-

tion repaired locally. No further treatment has been necessary.

DISCUSSION

Incarcerated rectal procidentia or incarcerated prolapsed stomas are infrequent events that may required emergency operation. If viable incarcerated bowel is reduced, a less morbid elective procedure may be performed. In our practice, we have facilitated reduction of incarcerated colostomy prolapses, ileostomy prolapses, and rectal prolapses by placing ordinary table sugar on the edematous viable bowel. Dramatic desiccation of the tissues occurs within minutes, allowing spontaneous or easy manual reduction. We have occasionally used this to reduce edema in prolapsed, nonthrombosed, edematous internal hemorrhoids. It will not work well for external hemorrhoids covered by skin. A review of the English medical literature failed to demonstrate a previous report of this technique. Farmers for years have claimed to reduce prolapse with sugar or salt and this may be the origin for the technique in humans (personal communication). Veterinary textbooks describe the technique for reduction of prolapse in dogs, cats, and horses.¹ Its most dramatic application is in the reduction of bovine uterine prolapse. The offending organ, in its most edematous state, may weigh up to 50 pounds and defy all attempts at

manual reduction. Several bags of table sugar draw water out of the swollen uterus, and the thus tamed reproductive organ may be placed back into its normal anatomic position.

SUMMARY

The desiccating effect of sugar placed on incarcerated prolapsed bowel, either from an ostomy or

per anus, has facilitated successful reduction of incarcerated tissue and thus turned an emergent operative condition into one that can be managed electively as indicated.

REFERENCE

1. Slatter DH. Textbook of small animal surgery. Philadelphia: WB Saunders, 1985:770.