Empty pelvis syndrome : Is bakri balloon the solution?

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INTRODUCTION

Pelvic exenteration is the only surgical option for locally advanced pelvic malignancies infiltrating surrounding organs. The resultant pelvic void after the procedure is responsible for a number of complications collectively termed as empty pelvis syndrome(EPS). This case series presents the surgical technique of laparoscopic total pelvic exenteration with bilateral pelvic node dissection along with a novel use of the Bakri balloon to minimize EPS.

AIM

To evaluate the use of Bakri balloon to prevent the resultant pelvic void after the pelvic exenteration or abdominoperineal resection procedure which is responsible for complications collectively termed as empty pelvis syndrome (EPS).

MATERIALS & METHODS

This is a case series of 21 successive patients undergoing open or laparoscopic, total or posterior pelvic exenteration or abdominoperineal resection or extended resections with wide pelvis for locally advanced rectal adenocarcinoma. The Bakri balloon was deployed in 21 patients and retained for variable time intervals postoperatively(Figures 1&2). Features of EPS were documented.

RESULTS

In the first patient, the Bakri balloon was completely deflated and removed on postoperative day (POD) 5, who developed subacute intestinal obstruction which resolved conservatively. In second and third patient, Bakri balloon was deflated sequentially, beginning on POD 8 and removed on POD 11. Both patients had no abdominal complaints. A postoperative CT scan of both these patients showed the small bowel loops above the pelvic inlet (Figure 3). A follow up MRI image at 3 months showed an empty pelvis filled with fluid (Figure 4). The following 18 patients underwent deflation protocol similar to the second and third patient, out of which one patient had accidental unrecognised deflation of Bakri balloon and underwent exploration for intestinal obstruction on POD7. Out of the 21 patients, 4 patients had delayed perineal wound healing, 2 of which required secondary suturing. Remaining patients had uneventful recovery.

Figure-1—Bakri balloon filling pelvis

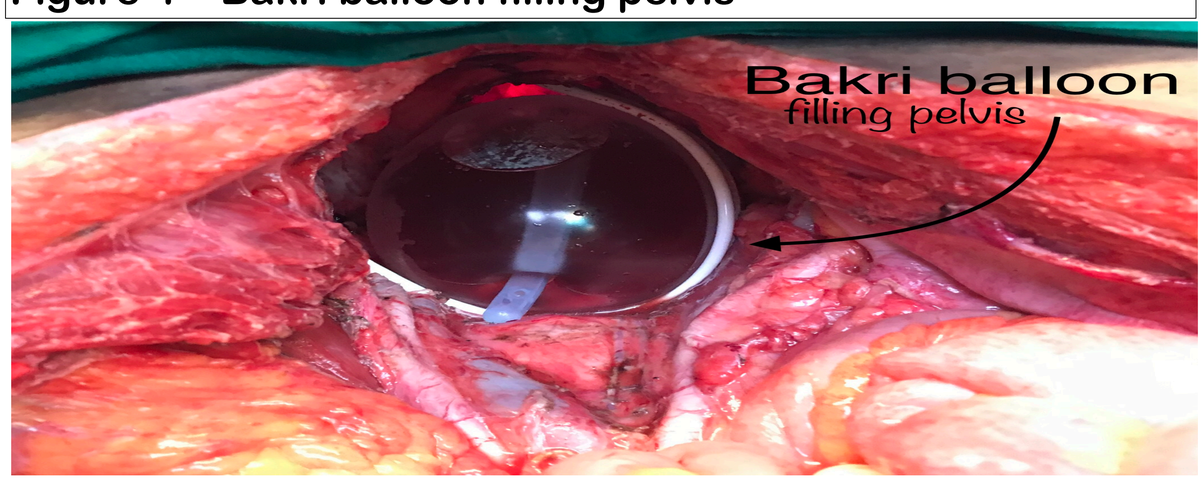


Figure-2—Bakri balloon in pelvis (perineal view)

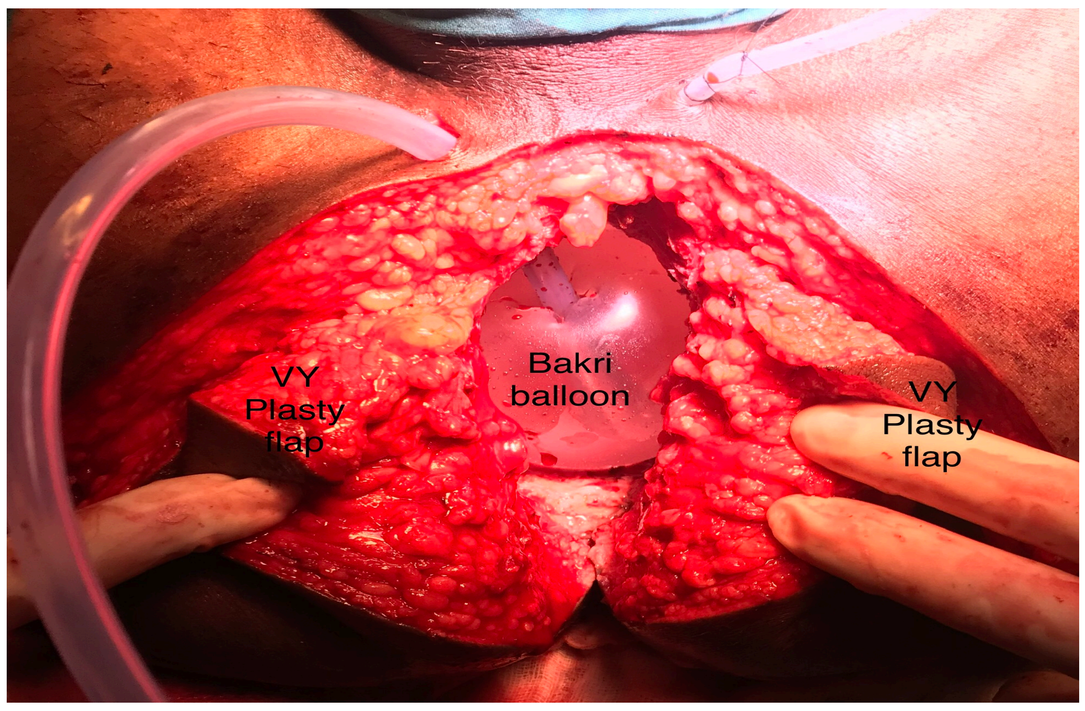


Figure-3—Post operative CT scan image

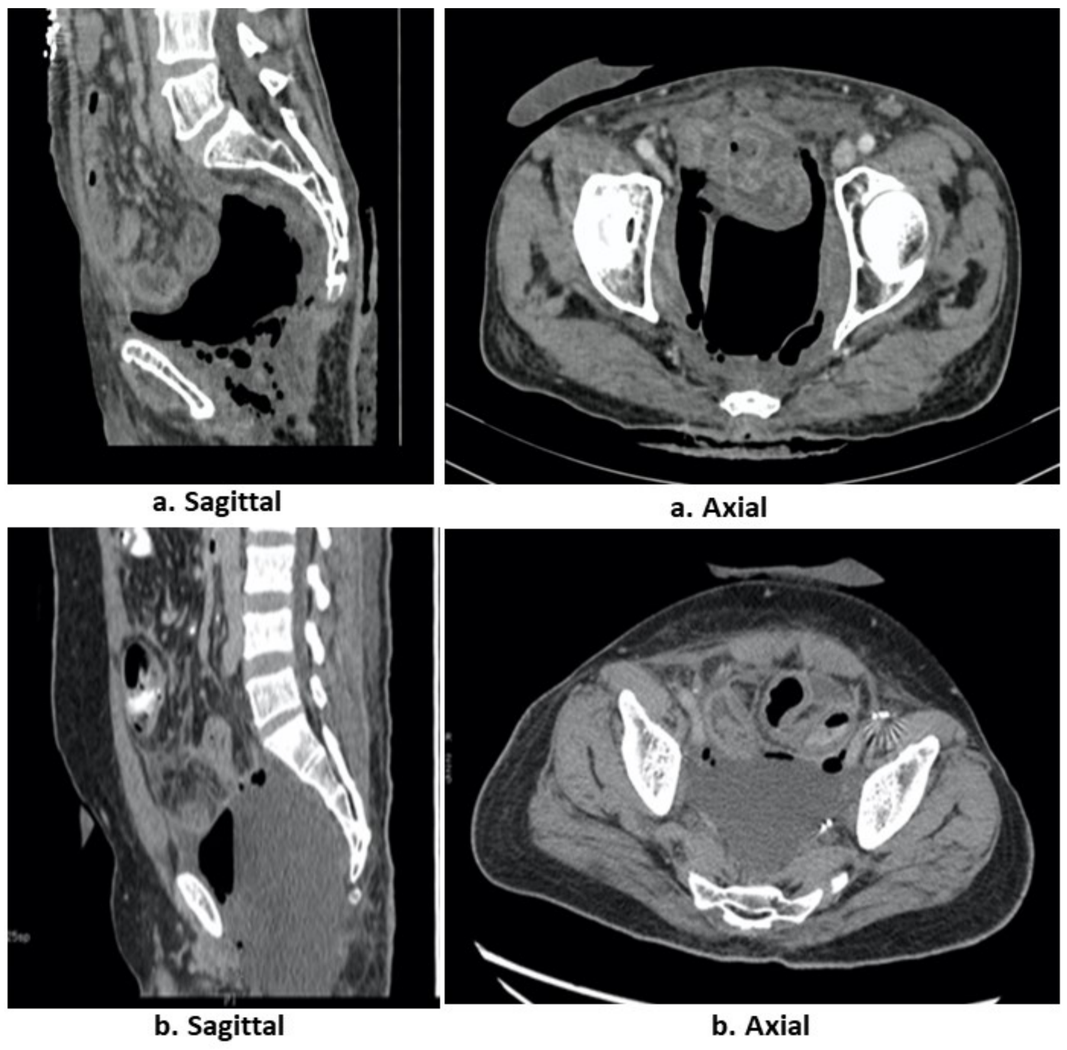
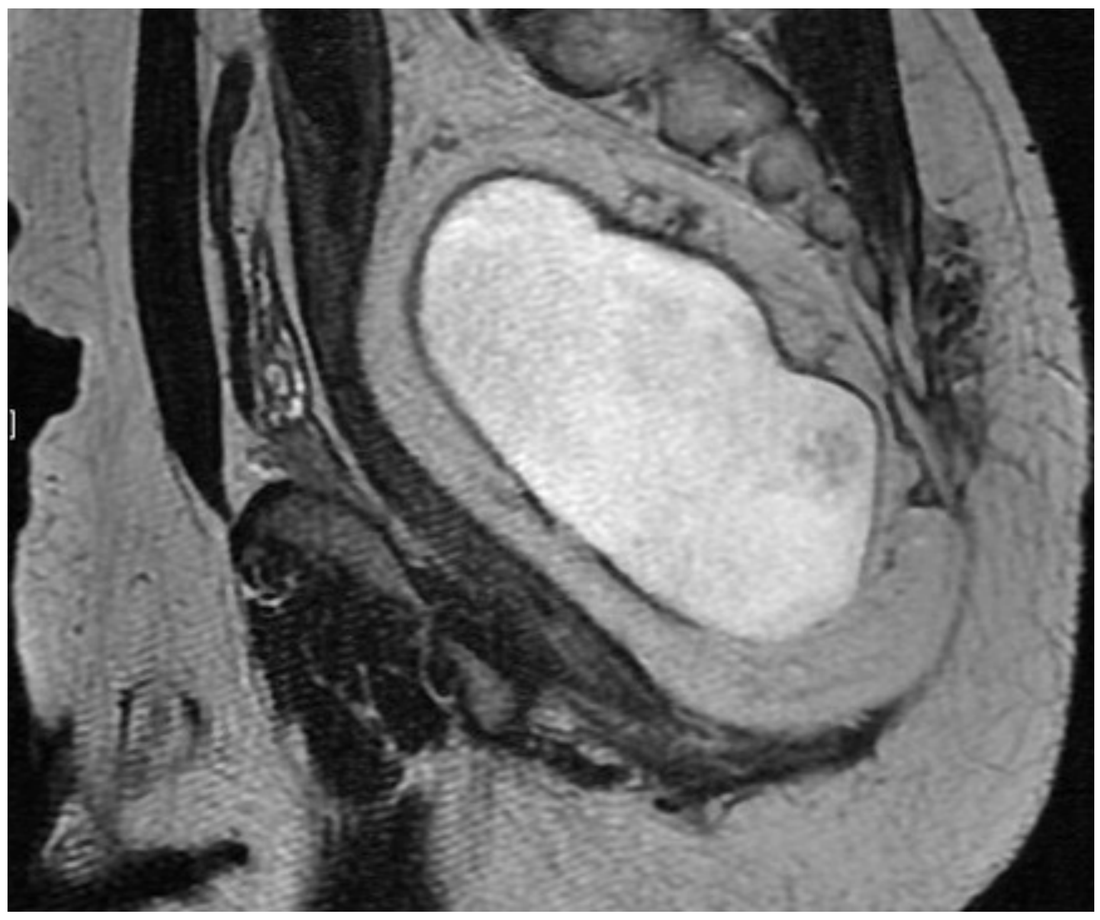


Figure 4—Follow up MRI image



CONCLUSION

The Bakri balloon is a simple, safe and cost-effective method to reduce the complications of empty pelvis syndrome following pelvic exenteration.