Abstract:
ABSTRACT Ureteric duplication is a rare congenital anomaly which may go undiagnosed in the preoperative imaging. Intraoperative identification of duplicated ureters can be managed successfully though there are no technical guidelines. We report a case of right ureteric duplication during performance of ileal conduit. Such ureteric duplication during ileal conduit has not been reported in the literature so far.

Keyword: Ureteric duplication, ileal conduit, palliative urinary diversion

INTRODUCTION:
Ureteric duplication is a rare congenital anomaly of the urinary tract with a reported incidence of 0.8%. It has a slight female predilection. Duplicated ureters might be under diagnosed on CT. The identification of double ureter intraoperatively is not a contraindication for surgery.

AIM:
We present a case of right ureteric duplication detected during performance of ileal conduit in a 53 years old woman with vesicovaginal fistula post radiation for carcinoma cervix. To our knowledge this has not been reported in the literature so far.

CASE REPORT:
53 years old woman known case of carcinoma cervix treated with EBRT 50Gy developed vesicovaginal fistula 3 months after radiation. Patient was planned for palliative ileal conduit since her disease was not salvageable with pelvic exenteration. On laparotomy, complete ureteric duplication was found on right side and single ureter on left side. CECT ABDOMEN IMAGES

After preparing a segment of ileum for conduit about 20cm proximal to ileocaecal junction, the three ureters were stented with 5 French ureteric catheters and dunked separately into the ileal segment and the distal end of the ileum was brought out as stoma in the anterior abdominal wall.
Her postoperative period was uneventful and A segment of ileum isolated for conduit

All the three ureters have been stented separately Distal end of ileum was brought out as stoma

**DISCUSSION:**

The management of locally advanced carcinoma cervix [stage IIB – IVA] includes radical chemoradiation with EBRT 50Gy followed by low dose brachtherapy to a total dose of 80-85 Gy LDR equivalent to point A concurrent with cisplatin alone or cisplatin and 5-fu. Based on five randomised trials (Keys et al, Rose, Bundy, Watkins et al, Morris et al, Whitney et al, Peters et al) comparing concurrent chemoRT versus RT alone, there is 30-50% reduction in the risk of death with concurrent chemo RT when compared to RT alone. Long term follow up of three of these trials also revealed a survival advantage for concurrent chemoRT. A recent metaanalysis has reported a 10% absolute improvement in survival with concurrent chemoRT and reduction in survival rate with increasing stage [1]. Factors prediction development of vesicovaginal fistula include bladder mucosal involvement at presentation, development of fistula during radiotherapy and it can also occur as complication of surgery (1%).
Palliative diversion surgeries like permanent diverting colostomy or urinary diversion with uretero ileal conduit is justified where there is significant life expectancy [2,3]. The presence of duplicated ureters is not a contraindication for such diversion procedures. Though the implications of such ureteric duplications were addressed during radical cysto prostatectomy with studer’s pouch formation and renal transplantation with donor ureteric duplication, none of the authors reported any experience with ureteric duplication during ileal conduit. Hence we aimed to report our experience on encountering this unexpected urinary tract anomaly intraoperatively. In our patient, right ureteric duplication was not identified on preoperative computerized tomography. In a study by Eisner et al, the ability of computerized tomography to detect ureteric duplication and the chances of under diagnosis were reported [4]. The sensitivity of axial CT with contrast material, axial CT without contrast material, and coronal CT without contrast material was 96%, 59%, and 65%, respectively, in their study. The negative predictive value of axial CT with contrast material, axial CT without contrast material, and coronal CT without contrast material was 95%, 65% and 67%, respectively. They demonstrated that duplicated ureters are under diagnosed on CT and stated that surgeons should be aware of this limitation. Technical aspects on encountering ureteric duplication was addressed by Abdullah Erdem Canda et al during Robotic Assisted Laparoscopic Radical Cystoprostatectomy and intracorporeal studer pouch formation [5]. They spatulated the single left ureter distally for 2 cm length and was anastomosed to the right ureter at the level of its bifurcation where it formed a single lumen without spatulation and a Wallace type uretero ileal anastomosis was performed between the ureters the proximal part of the studer pouch chimney. There are no well established guidelines for technical aspects on identification of such anomalies.

CONCLUSION:

Palliative urinary diversion procedures are indicated in patients with advanced cancer cervix and longer life expectancy. The presence of ureteric duplication surprisingly during surgery can be managed successfully. Due to the lack of publications in the literature addressing this issue, our experience is one of the few published reports. To the best of our knowledge, this is the first report of ileal conduit with duplicated ureters.

REFERENCES


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