The Chiladiti Bladder: An Entity Every Urologists Should Know

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INTRODUCTION

Suprapubic catheterization (SPC) is a routine procedure done in general and urological practice, where per urethral catheterization is not possible (urethral stricture, injury, vulvar carcinoma) or when we require long term alternative drainage (neurogenic bladder trauma to lower urinary tract or prostate abscess). The procedure is simple but blind one, and has the potential to injure the intestine, leading to peritonitis. We describe the radiological findings of such a bladder where bowel lies anterior and can get injured during suprapubic catheter placement.

CASE REPORT

A 40-year-old gentleman presented to the emergency department after road side accident with acute urinary retention. A gentle attempt was done to pass a per urethral catheter which failed, so he was taken up for SPC. Though the bladder was palpable, needle aspiration 3 cm above symphysis pubis did not yield urine. A computed tomography scan done to assess abdominal injuries, showed bowel loops in the retropubic space anterior to bladder (Figure). We placed SPC in this patient through a mini-laparotomy, instead of a blind trocar procedure.

DISCUSSION

The abdominal Chiladiti Syndrome was initially described as a radiological finding of dif-

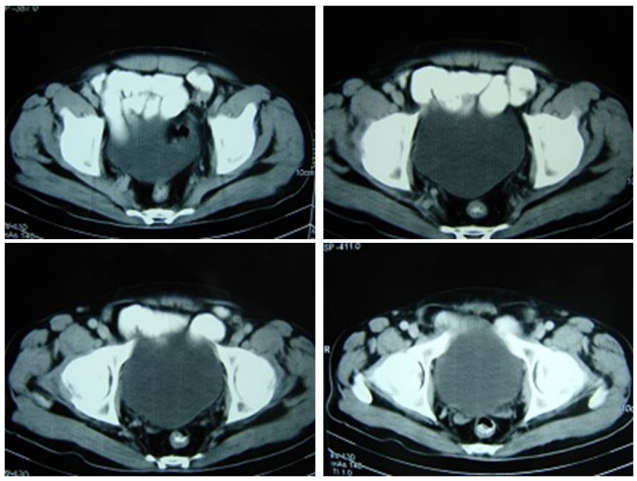

Figure. Abdominal CT scan demonstrates that the bowel loops can be seen anterior to the urinary bladder even in the distended state. Note that the bowel loops are reaching up to the level of symphysis pubis.

ferential diagnosis of gas under diaphragm. It refers to the usually asymptomatic interposition of the bowel (usually hepatic flexure of the colon) between the liver and the diaphragm, which is seen in 0.1%-0.25% of chest X-rays.[1] Factors contributing to its occurrence include redundant colon, as might be seen with chronic constipation or in bedridden individuals, eventration of the right hemidiaphragm, chronic lung disease and cirrhosis. Similar physiology may account for the 'Bladder Chiladiti Syndrome'. Normally the peritoneum covers the anterior 1/3rd and dome of bladder, but when the bladder becomes full, usually the peritoneum is displaced from the anterior aspect of bladder. Thus in most patients, space anterior to bladder wall has no intestine, rendering trocar SPC to be a safe procedure even when done without image assistance. However this may not occur in minority of patients. In obese patients, the retropubic space opens up where bowel segments can lie anterior to bladder. In patients, who have high intra-abdominal pressure, such as chronic cough, constipation, bladder outlet obstruction, intra-abdominal space occupying lesions, this potential space may open up, allowing intrusion of bowel. These conditions may lead to bowel injuries during a non- image guided SPC. In these cases radiological imaging to confirm the condition, followed by open SPC is advisable. To minimize the risk of SPC, guidelines are already issued, like rapid response report by National Patient Safety Agency in Europe and guidelines by British Association of Urological Surgeons.[2-4]

CONCLUSION

The presence of bowel loops anterior to full bladder, can be termed as "Chiladiti bladder" similar to the abdomen and should be suspected in patients when needle aspiration is negative.

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