

Transgender surgery – Knowledge gap among physicians impacting patient care

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Abstract

Transgender surgeries are increasingly performed across the globe and in the United States. Although comprehensive centers exist, which are well equipped to cater and tailor to the needs of this population subset, quite often their resultant complications are handled at a different institution owing to the acuity of the condition. However, interestingly the psychosocial needs, medical pathophysiology, available surgical procedures, and their resultant complications are still not a part of the regular medical curriculum. This translates into inadequate care when physicians from vast majority of institutions that do not routinely perform transgender surgery encounter these patients with complications from gender-affirming surgeries. We present a case of a patient who underwent complex multiple gender-affirming surgeries, presenting to our emergency department with an acute abdomen; this resulted in a diagnostic and management dilemma and review of brief pertinent literature. We recommend that transgender medicine and its basics needs should be exposed to currently practicing physicians by continuing medical education, trainees and medical students alike via incorporation into their curriculum, to decrease health disparities among the lesbian, gay, bisexual, transgender, and queer community.

Keywords: Fasciocutaneous flap; Gender-affirming surgery; Neoscrotum; Neourethra; Phalloplasty; Remnant vagina; Scroto-cutaneous fistula; Transgender surgery; Urethral stricture; Urethro-vaginal fistula

1. Introduction

There are about 9000 transgender surgeries being performed annually across the United States (US). The latest statistics indicate that 0.6% of the US population identifies as transgender.^[1] About 10.9% of medical encounters of transsexualism result in gender-affirming surgeries.^[2] There is a steady rise in the number of sex change surgeries being performed annually, with a total 8304 in 2017 to a total of 9576 in 2018, with 2885 of male to female surgeries and 6691 of female to male surgeries.^[3] The reported complications based on the limited available literature are variable, with certain procedures like double flap phalloplasty in transgender men as high as 53%.^[4]

To date, there is scarce literature available on the technical details, postoperative care, and complications of comprehensive sex change surgery, as a direct result of limited dedicated sex change surgery centers around the world and in the US. There is continuous innovation and advancement in this field as well.

There are only 2 centers with current accreditation for transgender surgical fellowship in the US.^[5]

We report a complex and unusual presentation of a patient that previously underwent sex change surgery, where we dealt with serious diagnostic, management, and ethical dilemma.

2. Case report

A 28-year-old transgender male presented to the emergency department with complaints of abdominal pain, nausea, vomiting, and intermittent diarrhea for 5 days; past medical and surgical history was not disclosed. Upon limited examination on patient's discretion, diffuse tenderness and voluntary guarding were noted in the abdomen. Pertinent labs include leukocytosis (27,510/mm³), neutrophilia, elevated creatinine indicative of Stage III acute kidney injury. Computed tomography (CT) of the abdomen reported small bowel distension with multiple air fluid levels, possible colitis, pneumatosis, and fluid collection in the pelvis and in the vaginal remnant communicating with the pelvis (Fig. 1). Based on the above presentation, our interpretation reflected acute abdomen requiring exploratory laparoscopy. The patient declined any surgical intervention; hence he was transferred to the Surgical Intensive Care Unit and was aggressively resuscitated. On detailed review with interventional radiologist, we suspected a possible fistula from neourethra to remnant vagina and this further communicated to the pelvic collection. Subsequently, the patient underwent drainage of 500 ml dark colored fluid that grew *Escherichia coli* and *Enterococcus faecalis* from the pelvis, a 14F catheter was left in place, the bladder was drained, and a 10F catheter was inserted via the neoscrotum. At this point, a scroto-cutaneous fistula with dark

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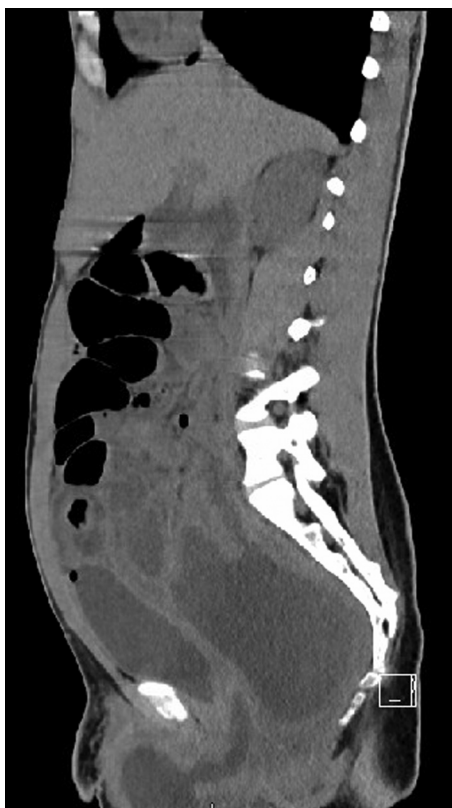


Figure 1. Abdominal CT at admission: pelvic abscess (sagittal view). CT= computed tomography.

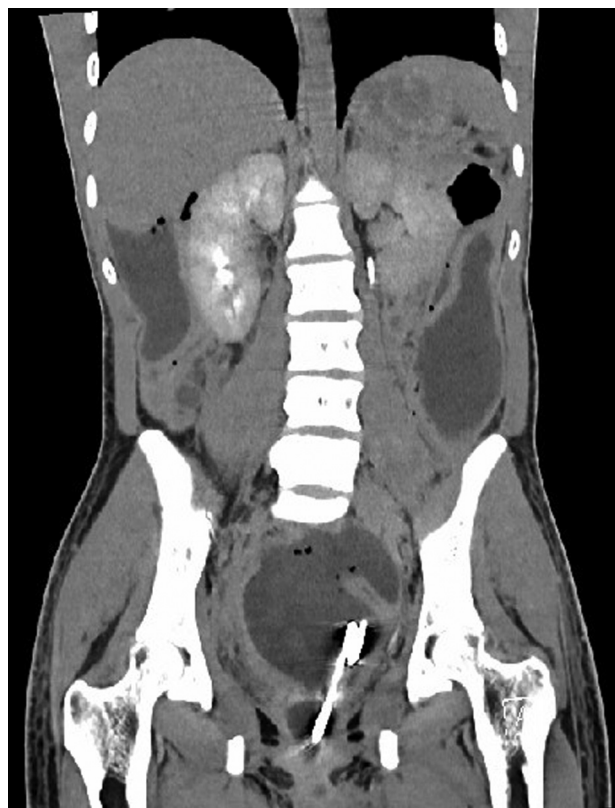


Figure 2. Abdominal CT: multiple intra-abdominal fluid collections (coronal view). CT=computed tomography.

foul-smelling discharge was noted as well. We were also able to retrieve patient's past surgical history from his primary institution that comprised bilateral mastectomy, hysterectomy, oophorectomy, partial vaginectomy, Ting's phalloplasty with rectus fascia, creation of neourethra and bilateral inner thigh fasciocutaneous flaps for neoscrotum, left gracilis muscle patching anastomosis, and simultaneous glansplasty with split thickness skin grafting from the left thigh. Considering the complex nature of the procedures that he underwent and its resultant complications, the unique multimodal requirements of this patient population, we contacted his primary institution and provider for possible transfer, they, however, advised continued care by us. The patient was managed conservatively and downgraded to the surgical floors.

Consecutively, he developed fever spikes and his overall condition worsened after he manipulated the drains; repeat imaging showed multiple intra-abdominal fluid collections with air pockets (Fig. 2). We followed this with CT-guided drainage of 500ml of feculent material. The patient was transferred to the surgical intensive care unit and managed there. At this point, the patient continued to refuse exploration laparoscopy. We contacted the primary institution and provider for the second time, and the patient was transferred for further comprehensive management.

3. Discussion

The first ever gender-affirming surgery dates back to 1946 by Sir Harold Gillies, since then there has been minimal progress in this

field until recently, especially in the last decade.^[6] The commonly performed procedure for the transition from female-to-male sex includes but is not limited to chest wall reconstruction, hysterectomy, oophorectomy, vaginectomy, metoidioplasty, and phalloplasty among others.^[7] The ultimate goal of any of these procedures is to allow for the creation of an aesthetic genital organ, as well as to allow for their excretory and related functioning. Although complications are related to procedure and specific, the urological complications clearly outweigh the rest.^[8] Rate of stricture and fistula formation are reported to be around 40% by 1 article,^[7] whereas some related recent article state urethral complications scaling between 25% and 75% following masculinizing gender-affirming surgery.^[9,10]

There are few centers in the US and across the globe that perform gender-affirming surgeries. Although these surgeries may be performed by a plastic surgeon or a urologist, the complications, especially urological are usually encountered by the nearest urologist rather than the primary surgeon;^[9] this then translates into care by a surgeon in another facility. Quite often, this can be a complex encounter, as these patients have a complex surgical history and might or might not have psychosocial issues that then significantly impacts care as well, especially in an outside institution. Of note, these patients are unique in that they are at an increased risk for suicide, mental health issues, HIV predisposition, and surgical complications specific and related to the procedures performed. Hence, we feel that these patients are always best managed in their primary institution, which are better equipped to cater and tailor to their needs in the most effective manner.

Our case demonstrates the dilemma encumbered with the management of this patient. This primarily stems from the fact that there is immense lack of knowledge and awareness among practitioners of all medical specialties in the field of transgender surgery. We believe that this is a direct result of this important, pertinent, upcoming field not being included in the routine medical curriculum. We recommend that transgender medicine and its basics needs should be exposed to currently practicing physicians by continuing medical education, trainees and medical students alike via incorporation into their curriculum, to decrease health disparities among the lesbian, gay, bisexual, transgender, and queer community.

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Statement of ethics

The authors vouch for the completeness and veracity of the data and data analysis.

Conflict of interest statement

The authors declare that they have no financial conflict of interest with regard to the content of this report.

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Author contributions

Vishnu R. Mani and Sebastian C. Valdivieso: Conceived the idea, manuscript preparation, project oversight.

Adel Hanandeh, Aleksandr Kalabin, Alexius Ramcharan, Brian Donaldson: Direct patient care and critical review.

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