

ACADEMY OF SPINAL CORD INJURY PROFESSIONALS

Complications from elective lipoabdominoplasty and baclofen pump translocation in a spinal cord injury patient

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Background

- Abdominoplasty ("Tummy Tuck") is performed with the goal of achieving a more aesthetically pleasing abdomen¹
- Abdominoplasty is performed for those with excess abdominal skin or fat, often following significant weight loss or bariatric procedures¹
- In 2019, over 118,000 elective abdominoplasty procedures were performed in the USA; Greater than 94% of recipients of abdominoplasty were women.²
- Spinal cord injury patients are at risk for obesity, with incidence of 40-66%³, due to decreased metabolic rate, limited mobility and diminished activity level.⁴
- SCI patients have less fat free mass and greater fat mass than able-bodied counterparts, due to muscle atrophy and physical inactivity.⁵

Introduction

- 30-year-old female with T4 incomplete paraplegia from remote spinal infarction in 2015
- Managed with intrathecal baclofen pump for severe hip flexor and lower extremity spasticity
- Bladder management with suprapubic catheter
- Patient was daily cigarette smoker

Surgery and Initial Complications

- Underwent cosmetic lipo-abdominoplasty, panniculectomy and baclofen pump translocation following significant intentional weight loss
- Baclofen pump was translocated from the right flank to the abdominal RLQ (figure 1)
- Goals of the elective procedure were better abdominal aesthetics and ability to easily perform CIC
- 3 weeks following surgery she experienced abdominal wound dehiscence (Figure 2)
- Patient continued smoking, the top known risk factor for poor healing following abdominoplasty^{1,6}
- Wound-vac placement was poorly tolerated secondary to increased abdominal spasticity



Figure 1:
Intraoperative photos from baclofen pump relocation



Figure 2:
Abdominal wound dehiscence

First IPR Admission

- Admitted to IPR for 16 days for oral antispasmodics, antibiotics and extensive wound care
- With worsening spasticity, XR revealed baclofen pump had flipped (Figure 2), requiring surgical repositioning (Figure 3 and 4)
- Patient returned to IPR following procedure and was discharged in stable condition



Figure 3:
Abdominal XR showing flipped baclofen pump

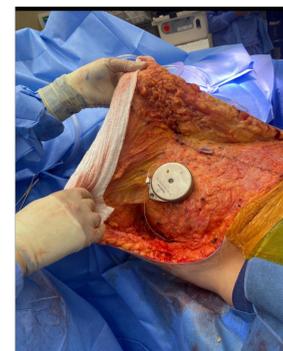


Figure 4:
Intraoperative photos from baclofen pump replacement

Second IPR Admission

- One month following DC from IPR, she presented to the ED with encephalopathy and witnessed seizure-like activity
- Concerning for meningitis; CSF grew Serratia and Klebsiella
- Baclofen pump was removed and intraoperative cultures also grew Serratia and Klebsiella
- Baclofen pump removal resulted in baclofen withdrawal
- Required additional 7 day IPR admission for oral anti-spasmodic treatment, oral antiepileptics and IV antibiotics

Discussion

- SCI patients are at risk for central obesity, yet little literature exists on elective surgical interventions
- ADL independence, comfortability in prone positioning and abdominal aesthetics may improve with elective abdominoplasty/panniculectomy⁷
- Prior to elective procedures, it is important to screen for risk factors of poor healing, including active cigarette smoking, diabetes mellitus or poorly controlled abdominal spasticity.⁶
- Baclofen pump implantation/manipulation increases the likelihood of infection and malfunction^{8,9}; deep surgical site infections increase risk of meningitis severe infection⁹

- Elective cosmetic surgical procedures can negatively affect baclofen pump maintenance
- Control of Abdominal spasticity and tobacco cessation is critical for adequate wound healing.
- Surgical site infections in intrathecal pump patients can progress to meningitis

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