



## Intrathecal Pump Site Erosion Secondary to Worsening Ascites



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### Introduction

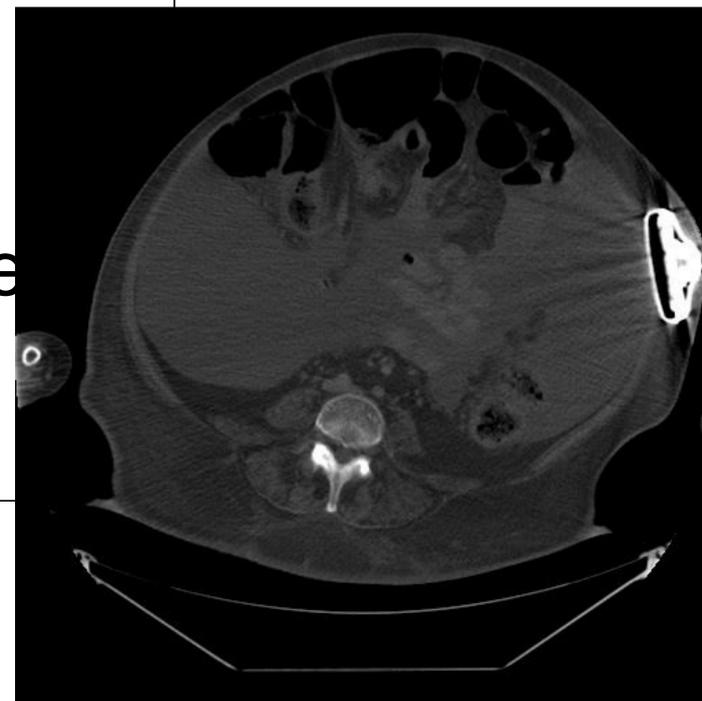
- 39 year-old morbidly obese male with C2 AIS B traumatic, chronic spinal cord injury with respiratory insufficiency on ventilator, who was admitted as an inpatient for worsening of pressure ulcers.
- He has an intrathecal baclofen pump (CODMAN®3000 infusion pump) for spasticity with the pump pocket at the left lower quadrant of abdomen.
- He had a complicated hospital course with issues including infected stage IV sacral and ischial decubitus ulcers, urinary tract infection, DM, ileus, hypoalbuminemia

### Presentation

- He was found to have ascites, normocytic anemia, and thrombocytopenia.
- He was diagnosed with non-alcoholic steatohepatitis (NASH) with cirrhosis.
- He underwent frequent paracentesis for chronic ascites secondary to malnutrition and NASH.
- He received low-sodium diet, albumin, and multiple diuretics in order to control his ascites.
- He was noted to have skin erosion with minimal exudate over the left lower quadrant of abdomen over the pump pocket. He last underwent paracentesis for chronic ascites 1 week prior.
- Afebrile with no leukocytosis.
- He underwent paracentesis with 6L of serous fluid removed in order to relieve some intraperitoneal pressure.



LLQ of abdomen. Lesion at the site of intrathecal pump pocket



CT abdomen & pelvis

### Medical Course

- Neurosurgery team evaluated the patient and decided on surgical intervention.
- He underwent surgical extraction of the old non-programmable pump with a JP drain placement, and an implantation of programmable pump (Synchromed II Programmable Infusion Pump Model 8637 20mL) to the right lower quadrant.
- He tolerated the procedure well with estimated blood loss of 150 mL.
- Dosage of baclofen was changed from 843 mcg/day pre-operatively to 650 mcg/day post-operatively under simple continuous mode.
- The baclofen dosage was later titrated up to 700 mcg/day to better control his spasticity.
- A more frequent, from every 2-week to weekly, paracentesis schedule was implemented.
- He underwent baclofen pump refill, and he was discharged home about 1 month post-surgery. There were no reports of skin erosion at pump site 2 month since discharge.

### Discussion

- Pump site erosion is a possible complication from various causes
  - Acutely, it could indicate surgical site dehiscence.
  - Subacutely and chronically, pump mitigation and flipping could occur if the pocket size does not fit the pump or if infection occurs in the pump pocket.
- In our case, the ascites exerted pressure and eventually pushed the pump site against his skin, causing erosion.
- The occurrence of NASH was shown to be increased in people with obesity, insulin resistance and T2DM as in our patient. These risk factors along with hypoalbuminemia are also known to be more likely among people with chronic SCI.
- The benefits and adverse effects of frequent paracentesis have to be weighed. In this case, the presence of intrathecal pump should be in consideration.

### Conclusion

- Intrathecal baclofen pump is a modality with many advantages for management of spasticity.
- This case illustrates that attention need to be paid when managing a patient with an intrathecal pump with chronic ascites.
- More frequent paracentesis, and selection of a different intrathecal pump may prevent recurrence.