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What's that Beeping Sound? Case Report

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Case Description

- The patient presented with concerns of intermittent beeping sounds from her pump that was recently replaced.
- She does not endorse any new weakness or spasticity.
- She notes the sound alarms for 10 minutes with long periods of silence.
- She has not heard the alarm since she left her home this morning, alarm was not heard in clinic.

Assessment

- Neurological exam was unremarkable except for sustained clonus on the right foot, which was not present at usual baseline.
- Interrogation of her Medtronic SynchroMed™ II showed it was replaced 3 months prior with a low reservoir alarm date in 6 months.
- The reservoir volume was 16.7 mL and no recent alerts were recorded.
- Abdominal x-ray was unremarkable for discontinuity or kinking of the pump catheter.
- Pump was programmed to deliver a 20-mcg bolus over 10 minutes. On reassessment in one hour, she was found to have decreased muscle tone and resolved clonus.

Tables & Figures

Image 1: Abdominal XRAY 2/11/19

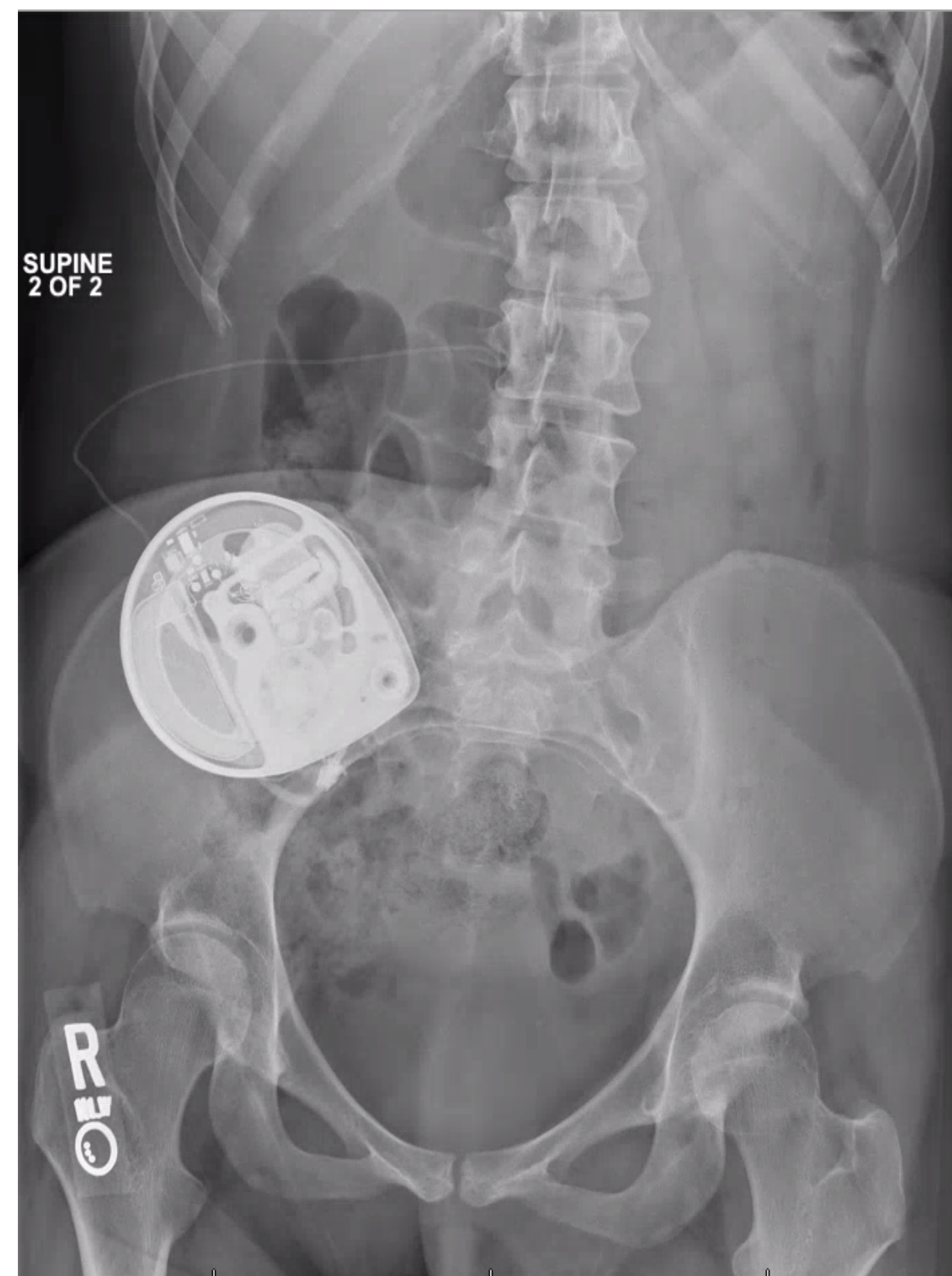


Table 1: Pump interrogation data 2/11/19

Device	Synchromed™ II	
Reservoir Volume	16.7mL	40 mL Total Pump Volume
Low reservoir alarm volume	2.0 ml	
Drug	Lioresele	(2000.0 mcg/mL)
Infusion	Simple Continuous	Monday-Sunday
Dosing	21.8 mcg/hr,	525.mcg /24hr
Changes Made	Single Bolus 10.0mcg	Duration: 10 min Hourly rate: 120.1 mcg/hr
New Alarm Date	4/08/19	

Discussion

- Given benign X-ray findings and the response to the bolus, we concluded that pump was functioning appropriately and the catheter was in continuity.
- We discussed our case with a representative from Medtronic who suggested the alarm may be coming from her recently explanted pump, which the patient had indeed kept.
- The patient was then discharged back home where she found her explanted pump alarming on her night table.

Conclusions/Clinical Implications

- ITB administration is a useful and well-established treatment of severe spasticity. The pump alarm alerts when pump volume is below the programmed low reservoir alarm volume or if it needs to be replaced. We report a case in which the patient mistakenly associated her removed pump alarm with her current implanted pump.
- This case demonstrates the importance of educating patients regarding the different alarm sounds, reasons why the pump may alarm, and disabling explanted pumps (if kept).

Graph 1: Timeline of events

