What’s that Beeping Sound? Case Report

Ellie Balakhanlou MD
Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University Health System

Olivier Rolin MD
Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University Health System

Eugenio Monasterio
Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University Health System

Follow this and additional works at: https://scholarscompass.vcu.edu/gme_posters

Part of the Other Medical Specialties Commons

© The Author

Downloaded from
https://scholarscompass.vcu.edu/gme_posters/18

This Clinical Case Reports is brought to you for free and open access by the VCU Health at VCU Scholars Compass. It has been accepted for inclusion in Graduate Medical Education (GME) Resident and Fellow Research Day Posters by an authorized administrator of VCU Scholars Compass. For more information, please contact libcompass@vcu.edu.
What’s that Beeping Sound? Case Report

Ellie Balakhanlou MD¹, Olivier Rolin MD¹,², Eugenio Monasterio, MD¹,²

¹Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University Health System, Richmond, Virginia
²Children’s Hospital of Richmond, Virginia Commonwealth University Health System, Richmond, Virginia

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.

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).

Tables & Figures

<table>
<thead>
<tr>
<th>Table 1: Pump interrogation data 2/11/19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Device</strong></td>
</tr>
<tr>
<td><strong>Reservoir Volume</strong></td>
</tr>
<tr>
<td><strong>Low reservoir alarm volume</strong></td>
</tr>
<tr>
<td><strong>Drug</strong></td>
</tr>
<tr>
<td><strong>Infusion</strong></td>
</tr>
<tr>
<td><strong>Dosing</strong></td>
</tr>
<tr>
<td><strong>Changes Made</strong></td>
</tr>
<tr>
<td><strong>New Alarm Date</strong></td>
</tr>
</tbody>
</table>

Graph 1: Timeline of events

Graph 1: Timeline of events

Image 1: Abdominal XRAY 2/11/19