

Leakage from a nonelectric disposable pump

Hiroyuki Kinoshita¹, Kazuaki Tange¹, Naoyuki Matsuda², and Yoshio Hatano¹

¹Department of Anesthesiology, Wakayama Medical University, 811-1 Kimiidera, Wakayama 641-0012, Japan

²Department of Primary Care and Emergency Medicine, Graduate School of Medicine, Kyoto University, Kyoto, Japan

To the editor: Disposable, nonelectric pumps are widely used for perioperative as well as cancer pain management. We noticed leakage from the flow controller of a disposable nonelectric pump (Multirate Infusor; Baxter Healthcare, Reading, MA, USA) during preparation before the use of the pump for continuous epidural anesthesia with 0.2% ropivacaine (Fig. 1). According to an inspection by the Safety Affairs Department of Baxter Limited Japan (Tokyo, Japan), insuffi-

cient welding inside the flow controller appeared to be the reason for this leakage. The flow controller is composed of multiple components that are assembled by welding, using ultrasonic waves. The manufacturing plant of Baxter Healthcare has acted to resolve this issue by the enhancement of their ultrasonic welding process using a new welding machine and improving their inspection procedures to detect leakage with a better detection device. We certainly appreciate this quick response from the company regarding this issue. This is the first report to demonstrate the mechanism of leakage from the flow controller of a disposable nonelectric pump; however, the percent incidence of such leakage is unclear. We still need to be cautious about this phenomenon when disposable nonelectric pumps are used in clinical practice.

Address correspondence to: H. Kinoshita

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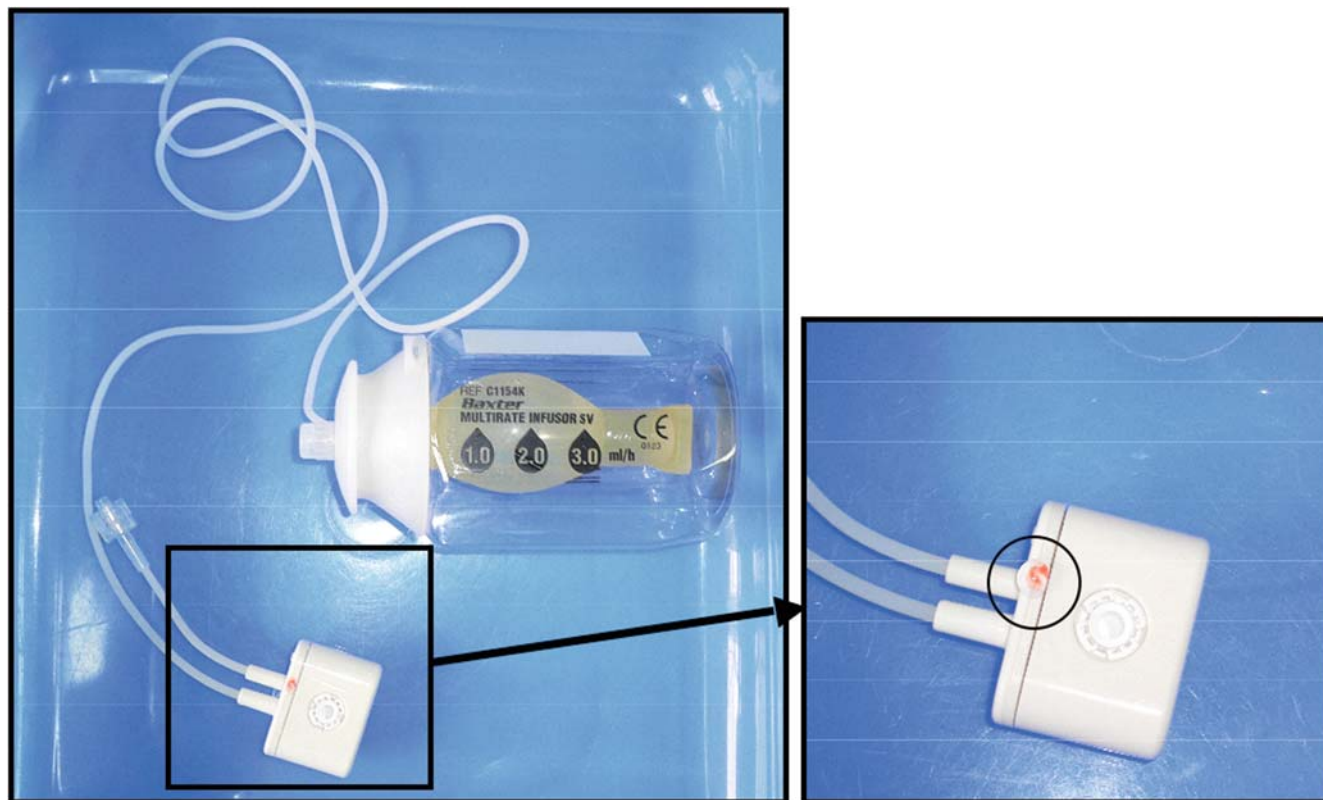


Fig. 1. Leakage from the flow controller (black circle) of a disposable nonelectric pump (Multirate Infusor; Baxter Healthcare). Note the drop of 0.2% ropivacaine at the red mark