Epidural catheter disconnection: an equipment failure or an operator error?

Déconnexion du cathéter péridural: problème de matériovigilance ou erreur humaine?

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Two reports [1,2] have recently focused on management of accidental disconnection between epidural catheter and its luer-lock connector in obstetric anesthesia listing the most common recommendations, which include simple reconnection of the catheter (2%), cleaning of the outside of the catheter and reconnecting it (15%), cutting a portion of the catheter and reconnecting it (4%), cleaning the outside of the catheter, cutting a portion and reconnecting it (44%), and finally removing the epidural catheter (35%) [2]. Cohen et al. [1] speculated that some catheter/luer-lock connector designs (e.g. a screw cap catheter/connector design) may be more prone to accidental disconnection than others (e.g. single snap catheter/connector design).

In his practice of obstetric anesthesia at the University of California, San Diego the author of this letter uses B. Braun 20 GA closed tip radiopaque polyamide epidural catheter (B. Braun Medical Inc., Bethlehem, PA 18018, USA) with screw cap catheter connector and the incidence of accidental catheter disconnection (even in parturients who receive ambulatory labor analgesia) is nearly zero (unpublished data). In conclusion, this author believes that more emphasis (attention) should be placed on prevention of accidental disconnection between epidural catheter and its connector, which is a function of an operator error (simply the screw cap is not tightened enough or the single snap cap is not connected properly by the anesthesia provider) rather than a function of an equipment malfunction/failure.

References


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