Sudden deflation of a tourniquet caused by lowering of the operating table

Dégonflage brutal d’un garrot provoqué par la descente d’une table d’opération

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Raising or lowering an operating table can be accompanied by unpredictable risks. This letter points out the hazard that can result from moving the table during the operation. I would like to report a case which occurred in our Institution while we provided a pilot study concerning the use of low-doses of lidocaine in the Bier Block [1].

A 63-year-old ASA 1 man underwent an aponevrectomy of the hand under intravenous regional anesthesia.

After exsanguination of the upper limb, a pressure of 300 mmHg was applied to the proximal tourniquet and the solution of local anesthetic was injected through the cannula. The intention was if a tourniquet pain would occur during the operation, the distal tourniquet would be substituted for the proximal one as recommended by Merle d’Aubigné et al. [2].

Approximately 15 min after the beginning of the operation, the surgeon requested to lower the operating table. Within a few minutes, the surgeon announced that the operation field was flooded with blood while the patient started to complain from pain in the hand. An unexpected deflation of the tourniquet was immediately suspected.

In fact a rapid examination showed that the electric pump commanding the inflation–deflation of the tourniquet’s armbag (VBM*) was found under the operating table. Furthermore, the extremity of the handle of the table (whose shape is spherical) was pressing continuously on the button that commands the deflation of the tourniquet (Fig. 1). When the table was raised again this button was released and the tourniquet inflated. Fortunately, according to our protocol, the patient had received a low-dose of lidocaine–fentanyl mixture (respectively, 1.5 mg/kg and 1 μg/kg) so that this incident had no systemic effect.

Furthermore, since the cannula was still in place, connected to an extension tube (for eventual reinjections), the surgeon exsanguinated again the upper limb, the tourniquet was inflated and the same drugs were injected intravenously at the same dose. The operation thus progressed uneventfully.

From this experience, we can reach the following conclusions:

- one must be very careful when moving the operating table the patient is laying on;
- the anesthesiologist is the only person allowed to move the table, since he can check all the consequences deriving from it;
- although other studies indicate there is a poor benefit in adding fentanyl to local anesthetics, the use of low-dose lidocaine in the Bier Block is very safe especially in case of unwanted deflation of the tourniquet.

References


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