Delayed retroperitoneal haematoma after failed lumbar plexus block

The case report of Aveline and Bonnet brings out an important potential clinical complication occurring after repeated attempts of a deep plexus block and the concomitant need for anticoagulation. Their patient had been maintained preoperatively, unevenly, on prophylactic phenylindanedione (international normalized ratio (INR) between 2 and 3) which was stopped 7 days after surgery. Enoxaparin 60 mg twice daily was given for 4 days before surgery and withheld for 24 h preceding surgery. It was reinitiated at 40 mg day 1 after surgery and then continued at 60 mg once a day from 2 days after surgery until INR was between 2 and 3. Total duration of enoxaparin treatment was 7 days. Phenylindanedione was reintroduced 3 days after surgery to achieve the range require in the prophylactic management of her thrombophilia. Preoperative renal function was normal (creatinine clearance 81 ml min⁻¹) and did not change significantly during the postoperative period. In the same way, preoperative haemostasis tests and time of first injection of enoxaparin were in agreement with recommendation of management of plexus blockade and thromboprophylaxis. Dr Hsu suggests that monitoring of anti-Xa level could have given clear information about the haemostatic state in this case, in agreement with previous guidelines. However, more recently, relationships between anti-Xa activity, efficacy, and adverse effects have not been definitively established when renal function is not impaired and LMWH prescribed in once daily prophylactic fixed-dose. The monitoring of this test is not predictive and not recommended. Our patient did not receive any non-steroidal anti-inflammatory drugs or other antiplatelet medication and was discharged without any neurological symptom or defect. The retroperitoneal hematoma was diagnosed 7 days after her discharge (10 days after interruption of enoxaparin) with an INR at 3.5, which was higher than the INR expected for long-term prophylaxis. Lumbar plexus block was not achieved and several attempts were performed which suggest that, even without evidence of vessel trauma, oral anticoagulation must be delayed and their use justified. At present, there is no evidence that the anti-Xa level can be affected by body weight during prophylactic treatment with enoxaparin when renal function is in the normal value. The BMI of this patient was 31 kg m⁻² and did not affect the metabolism of enoxaparin. LMWH are routinely used in Europe for venous thromboembolism in hip surgery and are as effective as oral anticoagulants with less major hemorrhagic side-effects. This case report highlights the problems in the management of chronic anticoagulation in patients with thrombophilia requiring a plexus block. The reintroduction of oral anticoagulants, after a plexus block in which difficulties were noted at any time of the procedure, must be delayed and LMWH preferred during the first weeks.

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Editor—We thank Dr Hsu for her interest in our case report describing a delayed postoperative retroperitoneal hematoma after lumbar plexus block. She suggests the necessity of monitoring the anti-Xa activity to obtain the real profile of anticoagulation during venous thromboembolism after total hip replacement. In our case, enoxaparin 40 mg once a day was initiated postoperatively 14 h after the block and then 60 mg once a day from 2 days after surgery until INR was between 2 and 3. Total duration of enoxaparin treatment was 7 days. Phenylindanedione was reintroduced 3 days after surgery to achieve the range require in the prophylactic management of her thrombophilia. Preoperative renal function was normal (creatinine clearance 81 ml min⁻¹) and did not change significantly during the postoperative period. In the same way, preoperative haemostasis tests and time of first injection of enoxaparin were in agreement with recommendation of management of plexus blockade and thromboprophylaxis. Dr Hsu suggests that monitoring of anti-Xa level could have given clear information about the haemostatic state in this case, in agreement with previous guidelines. However, more recently, relationships between anti-Xa activity, efficacy, and adverse effects have not been definitively established when renal function is not impaired and LMWH prescribed in once daily prophylactic fixed-dose. The monitoring of this test is not predictive and not recommended. Our patient did not receive any non-steroidal anti-inflammatory drugs or other antiplatelet medication and was discharged without any neurological symptom or defect. The retroperitoneal hematoma was diagnosed 7 days after her discharge (10 days after interruption of enoxaparin) with an INR at 3.5, which was higher than the INR expected for long-term prophylaxis. Lumbar plexus block was not achieved and several attempts were performed which suggest that, even without evidence of vessel trauma, oral anticoagulation must be delayed and their use justified. At present, there is no evidence that the anti-Xa level can be affected by body weight during prophylactic treatment with enoxaparin when renal function is in the normal value. The BMI of this patient was 31 kg m⁻² and did not affect the metabolism of enoxaparin. LMWH are routinely used in Europe for venous thromboembolism in hip surgery and are as effective as oral anticoagulants with less major hemorrhagic side-effects. This case report highlights the problems in the management of chronic anticoagulation in patients with thrombophilia requiring a plexus block. The reintroduction of oral anticoagulants, after a plexus block in which difficulties were noted at any time of the procedure, must be delayed and LMWH preferred during the first weeks.

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