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Total Knee Arthroplasty in a Haemophilia: A Patient with High Titre of Inhibitor Using Recombinant Factor VIIa

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Abstract : Hemophilia A is simply described as deficiency of factor VIII(FVIII) and patients with this disorder have bleeding complications in different organs. By using the recombinant factor VIII in these patients, elective orthopedic surgeries have been done approximately in 40 last years. About 10-30 % of these patients have bleeding complications in their surgeries even by using recombinant factor VIII because of their inhibitor against FVIII molecule. Preoperative haemostatic management in these patients is challenging. We treated a 28-year-old male patient with hemophilia A with FVIII inhibitor which had been detected when he was14 years old (with the titer 54 Bethesda unit(BU)) scheduled for total knee arthroplasty (TKA). We use 90 µg/kg rFVIIa just before the surgery and every 2 hours during surgery. The patient did not have any significant hemorrhage during the surgery and after that. For the 2 days after surgery, the rFVIIa repeated every 2 hours as the same as preoperative dosage(90 µg/kg) and for another 2 days of postoperative admission it continued every 4 hours. After 4th day, the rFVIIa continued every 6 hours with the same dosage until the sixth day from the surgery, and finally the patient were discharged about two weeks after surgery. Seven days after the discharge, he came back for the follow up visit. On the follow up examination, the site of the surgery had neither infection hemarthroses signs.

Keywords : hemophilia, factor VIII inhibitor, total knee replacement, rFVIIa
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