Managing of supracondylar femur fracture in a patient with congenital antithrombin III deficiency

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Congenital antithrombin III deficiency is associated with increased risk of thromboembolism. Here we report the case of a Chinese accident victim with congenital antithrombin III deficiency who sustained a supracondylar fracture of the left femur and subsequently developed deep vein thrombosis in the injured leg. The resulting thrombosis altered our approach to the postoperative management of her fracture. Thromboprophylaxis was initially done through the pre- and postoperative administration of fresh frozen plasma in addition to perioperative use of the anticoagulant heparin. Four days after the femur fixation operation, when deep vein thrombosis was discovered, we ordered antithrombin III replacement therapy in this patient until her full remobilization. Use of antithrombin III concentrate for prophylactic anticoagulation treatment has a relatively lower risk of fluid overload than does therapy with fresh frozen plasma, and the former allows more accurate estimation of antithrombin III levels. (Hong Kong Journal of Orthopaedic Surgery 2001;5(2):125-128.)

Key Words: Aged, Anticoagulants/therapeutic use, Antithrombin III deficiency / complications, Biosynthesis, Thromboembolism / congenital

先天性抗凝血III缺乏者股骨髁上骨折的处理

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先天性抗凝血III缺乏與較高的血栓栓塞病發率相關。我們報告一例先天性抗凝血III缺乏的中國患者，因意外導致左股髁上骨折，傷患隨後出現深靜脈血栓，形成的血栓改變了骨折的術後處理方法。最初，術者的血栓預防法以術前及術後給予新鮮冷凍血漿，及在手術期間給抗凝血肝素進行。股骨固定術四天後發現深靜脈血栓，我們改用抗凝血III替代療法，直至傷者完全恢復活動能力。使用濃縮抗凝血III作預防性抗凝治療，患者出現體液過剩的危險較使用新鮮冷凍血漿低；前者方便更準確地計算抗凝血III水平。