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LETTER TO THE EDITOR

Drug thromboprophylaxis in critical patients and the accumulation of low molecular weight heparins☆

Tromboprofilaxis farmacológica en paciente crítico y la acumulación de heparinas de bajo peso molecular

Dear Sir,

We have read the manuscript by R. Viejo-Moreno et al.[1] on the prevention of thromboembolic disease in critical patients with great interest. On examining the protocol referred to the assessment and adoption of preventive measures in critical patients described in the mentioned study, we feel it necessary to add the evaluation of creatinine clearance as an independent variable, particularly in those patients in which drug thromboprophylaxis would be indicated, since in all cases the type of low molecular weight heparin (LMWH) contemplated for use is enoxaparin. A systematic review published in 2015[2] indicates that of the LMWHs used for thromboprophylaxis, both tinzaparin and dalteparin are safe in patients with renal failure, require no dose adjustment, and do not undergo bioaccumulation. In contrast, drug thromboprophylaxis with enoxaparin, bemiparin and certoparin is associated to accumulation among patients with a creatinine clearance of under 30 ml/min. Previous studies show that the incidence of acute renal failure in Intensive Care Units is close to 6%,[3] and constitutes a factor to be considered when indicating certain drugs. Critical patient evolution is dynamic, and in this regard although renal failure may be absent at the time of admission, it can develop in the course of hospitalization. Although the analyzed study does not report complications secondary to drug treatment, this may be because of the sample size involved. In effect, in a larger patient sample subjected to drug thromboprophylaxis, such complications could appear. In this respect, the measurement of anti-Factor Xa titers might not be necessary when thromboprophylaxis is provided with tinzaparin or dalteparin in patients with renal failure – reserving such measurement for cases where anticoagulation with LMWHs is prescribed. This moreover would contribute to lower the costs.

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