Effect of conventional haemodialysis on the apixaban plasma concentration

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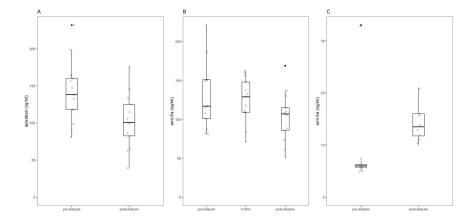
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Abstract

Apixaban is a factor Xa inhibitor and is used in patients undergoing haemodialysis treatment. Apixaban can be cleared by haemodialysis, which might lead to decreased apixaban plasma concentrations and insufficient anticoagulation during and after haemodialysis. The objective of this study was to investigate the effect of haemodialysis on apixaban plasma concentrations in patients treated with apixaban 2,5 mg twice daily on conventional haemodialysis with standard low molecular weight heparin (LMWH) anticoagulation (nadroparin 3800-7600IU). A significant difference was observed between the apixaban concentration before and after dialysis (mean before dialysis 141.03 ng/ml; mean after dialysis 102.71 ng/ml; p=0.003). Nonetheless, both apixaban plasma concentrations and anti-Xa levels remained within reference range. Anti-Xa levels have a strong correlation with the apixaban concentrations (r=0.935, p=0.000). Thus, anti-Xa activity might be used as a surrogate for apixaban plasma concentration. There seems to be no need for dose adjustments of apixaban and co-administration of LMWH next to apixaban might be unnecessary.

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