Lower argatroban starting dose and lower aPTT goal range instead of aggressive monitoring

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Sir,

With great interest we read the article “Bleeding risk factors associated with argatroban therapy in the critically ill” by Doecker and colleagues in your journal[1]. The authors report on their one year experience with argatroban in 73 critically ill patients. They found a bleeding incidence of 22 % and that bleeding risk was associated with major surgery, elevated bilirubin plasma levels >3 mg/dL, low platelet counts ≤ 70 K/ μ L and initial dosing weight >90 kg. Doecker et al. conclude that “the results suggest that patients with these risk factors require more aggressive monitoring”.

We disagree with this conclusion. We have recently shown, that an argatroban starting dose of $0.2 \mu\text{g/kg min}^{-1}$ is sufficient and safe for effective anticoagulation in critically ill patients, when the goal aPTT is 1.5–2 times baseline [2]. Doecker et al. used initial argatroban doses of $0.45 \pm 25 \mu\text{g/kg min}^{-1}$ for patients with bleeding events and $0.56 \pm 0.37 \mu\text{g/kg min}^{-1}$ for patients without bleeding. In contrast, they report steady state doses of 0.41 ± 28 and $0.34 \pm 25 \mu\text{g/kg min}^{-1}$ for patients with and without bleeding, respectively. Thus, steady state doses were equal to or, in patients without bleeding considerably lower, than starting doses. This is remarkable because in 63 % of patients with bleeding events, aPTT goal range

was $2\text{--}2.5 \times$ baseline although 75 % of them had major surgery. The higher aPTT goal range in these patients contrasts the methods section, where the authors state “that in patients considered to be at a high risk of bleeding (e.g. recent major surgery) “goal aPTT was 1.5–2 times”.

Based on the unfortunate combination of risk factors and aPTT goal range in patients with bleeding, we believe the results presented by Doecker et al. warrant two different conclusions: (1) Patients with risk factors should receive lower argatroban starting doses and (2) aPTT goal range should be 1.5–2 times baseline in patients with risk factors, if no thrombo-embolic complications are detected at the time of HIT suspicion.

References

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