



In patients lacking IV access, effective PCC administration becomes problematic. No previous case reports have documented PCC infusion via intraosseous (IO) or alternative routes in this setting” (Peyko et al 2019).

Abstract:

BACKGROUND: Vitamin K antagonist (VKA) reversal in patients with acute major bleeding and coagulopathy is an example of an urgent intervention in the emergency department. Intravenous (IV) prothrombin complex concentrate (PCC) may reverse VKA-induced coagulopathy in <30 min. In patients lacking IV access, effective PCC administration becomes problematic. No previous case reports have documented PCC infusion via intraosseous (IO) or alternative routes in this setting. **CASE REPORT:** A 74-year-old man presented to the emergency department (ED) after a head injury, with sudden onset of left-sided facial droop, weakness, hypertension, and dizziness. Initial vital signs include blood pressure of 221/102 mm Hg, a heart rate of 75 beats/min, and oxygen saturation of 96% on room air. Warfarin 3 mg once daily was among his medications. His international normalized ratio (INR) was 3.9 with a computed tomography scan showing intraparenchymal hemorrhage in the right temporal lobe. Multiple attempts for IV access at various sites were unsuccessful. Therefore, IO access was established. Because of his prolonged prothrombin time, elevated INR, and intraparenchymal hemorrhage, the decision was made to use 4-factor PCC to reverse the supratherapeutic INR. The INR normalized as an emergent right parietal hematoma

evacuation was performed. After an inpatient course, the patient was eventually discharged. WHY SHOULD AN EMERGENCY PHYSICIAN BE AWARE OF THIS?: VKAs, like warfarin, are commonly prescribed medications. When life-threatening hemorrhage is present, rapid reversal of a VKA-induced coagulopathy may be a life-saving therapy. In the event that IV access has not been established, we have demonstrated that IO access is a viable alternative route for PCC administration.

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Reference:

Peyko, V., Shams, D., Urbanski, R. and Noga, J. (2019) 4-Factor Prothrombin Complex Concentrate Administration via Intraosseous Access for Urgent Reversal of Warfarin. The Journal of Emergency Medicine. May 3rd. . doi: 10.1016/j.jemermed.2019.03.005.

