

Dinoprost overdose

Cardiovascular collapse: case report



A 31-year-old multigravida woman, 35 weeks pregnant, was admitted for treatment of pregnancy-induced hypertension and vaginal bleeding. Induction of labour resulted in the birth of a healthy boy followed by a minimum of bleeding. However, soon after delivery, a large amount of blood was lost (about 3000ml) and systolic BP dropped to 85mm Hg.

Oxytocin, 2 units of packed red blood cells and normal saline 2L were administered and bimanual uterine compression was performed. Persistent blood loss continued and she was induced for general anaesthesia using thiopental sodium 150mg and suxamethonium [succinylcholine] 100mg. During examination, her BP increased to 150/90mm Hg but the patient continued to experience abnormal blood loss.

Dinoprost [prostaglandin F₂] 40mg was injected into the lower uterine segment. While BP remained constant, her bleeding stopped but she stopped breathing a few minutes later. Resuscitation efforts included administration of IV ephedrine (total 50mg), epinephrine [adrenaline] (total 1mg), and phenylephrine (total 4mg) over 20 min which failed to improve her condition. Her femoral pulse had been difficult to detect throughout this period and BP remained very unstable.

IV hydrocortisone 300mg was administered and IV lidocaine [lignocaine] 60mg was given to control ventricular premature beats. A few minutes later, pulmonary oedema developed and large amounts of frothy pink sputum emanated from her tracheal tube. A dopamine infusion was started and systolic BP returned to 80mm Hg. She was transferred to an intensive care unit where she continued to improve and 4 days later, she was discharged.

Cardiovascular collapse was temporally related to dinoprost administration. Since the recommended intramyometrial dose of dinoprost is 1-5mg and this patient received 40mg, the authors concluded that dinoprost was primarily responsible for the numerous problems this patient experienced.

The authors advise that **'whenever a new drug, or an old drug with a new use, becomes available, it is important that all staff become familiar with the appropriate dose for each indication.'**

Douglas MJ, Farquharson DF, Ross PLE, Renwick JE. Cardiovascular collapse following an overdose of prostaglandin F₂ alpha: a case report. Canadian Journal of Anaesthesia 36: 466-469, Jul 1989