Chlorphenamine/paracetamol/phenylephrine

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Supraventricular tachycardia: case report

A 10-day-old boy developed supraventricular tachycardia (SVT) [time to reaction onset not stated] following treatment with chlorphenamine/paracetamol/phenylephrine [chlorpheniramine maleate/paracetamol/fenilefrin hydrochloride; dosage not stated].

The boy was admitted to the hospital due to uneasiness, crying, breathing difficulty and cyanosis. On admission, his physical examinations showed body temperature of 36.7°C, normal but superficial breathing, increased pulse rate, a 1/6 systolic murmur, oxygen saturation of 80% and a weak pulse. His ECG showed a heart rate of 284 /minute, no P waves complex and a regular ventricular rate, consistent with SVT. His venous blood gas analysis revealed the following: pH 7.30, partial pressure of carbon dioxide 51.2mm Hg, bicarbonate 19.3 meq/L and base excess -6.3. His hemoglobin level was at 14.9 g/dL, hematocrit level was at 40.6%, leukocyte count was 13000 /m³, platelet count was 665000 /m³ and CRP level was 3.16 mg/L. Upon a detailed medication history analysis, it was found that, before the admission, he was receiving a cough syrup containing chlorphenamine/paracetamol/phenylephrine for influenza. He was admitted to the neonatal intensive care unit with SVT diagnosis.

The boy was treated with adenosine. After the third dose of adenosine, his heart rate decreased to 150 /minute. After regaining of a normal rhythm, repeat ECG showed a short PR interval, a delta wave and a wide QRS complex, which were consistent with a Wolff–Parkinson–White syndrome. After adenosine treatment, he was treated with amiodarone. As the SVT was not observed for 4 days, amiodarone was discontinued on the 5th day of hospitalisation. He was discharged to the outpatient clinic on propranolol treatment. After the discharge, he presented to the hospital twice with SVT episodes. Thereafter, he was monitored without any problems under propranolol prophylaxis.

Author comment: In this report, we presented a case in which there was ECG finding compatible with pre-excitation syndrome (WPW) which was responsible for [supraventricular tachycardia] as an etiological factor after normalisation of cardiac rhythm by adenosine treatment in a newborn admitted with uneasiness, reminding that unfavorable use of phenylephrine during neonatal period may trigger tachyarrhythmia.

Korkmaz L, et al. A case of occured supraventricular tachycardia based on WPW triggered with chlorpheniramine and phenylephrine in newborn period. Medical Journal of Bakirkoy 13: 102-106, No. 2, 2017. Available from: URL: http://doi.org/10.5350/BTDMJB201713208 [Turkish; summarised from a translation] -