Drug points

Neonatal convulsions after withdrawal of baclofen

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Baclofen is a skeletal muscle relaxant used for the relief of chronic severe spasticity resulting from disorders such as multiple sclerosis or traumatic injury to the spinal cord. We report convulsions in a 7 day old girl who had been exposed to baclofen during intrauterine life. A paraplegic mother had been taking baclofen 20 mg four times daily (Lioresal, Novartis, Surrey), oxybutynin 3 mg three times daily, and trimethoprim 100 mg daily, which she continued throughout her pregnancy. The pregnancy was uneventful, but the baby was delivered by ventouse extraction owing to fetal tachycardia. The Apgar score was 10 at one and five minutes (cord pH: arterial 7.33, venous 7.3).

Seven days later the baby was admitted with generalised convulsions. In retrospect the mother had noticed abnormal movements from the second day after birth. Investigations included a full septic screen for bacteriology and virology; a full blood count; serum electrolytes; liver function tests; a metabolic screen of blood, urine, and cerebrospinal fluid; urine for toxicology; and cranial ultrasonography. All gave negative results. The convulsions did not respond to phenobarbitone, phenytoin, clonazepam, lignocaine, or pyridoxine, which were tried according to our hospital’s guidelines for the management of neonatal seizures. The baby received broad spectrum antibiotics until the cultures gave negative results. Electroencephalography on day 11 showed prolonged episodes of epileptic activity.

We thought that the convulsions could be due to withdrawal of baclofen. Baclofen, 1 mg/kg daily in four divided doses, was started. Thirty minutes after the first dose the convulsions stopped. Baclofen was withdrawn slowly over the next two weeks. Magnetic resonance imaging of the brain on day 17 suggested a short hypoxic ischaemic insult during the perinatal period.

Because the baby was in good condition at birth and because the convulsions were controlled within 30 minutes of starting baclofen, we concluded that the convulsions had been caused by its withdrawal. The change shown by the magnetic resonance image may have had secondary to the convulsions.

In adults the half life of baclofen is 2–6 hours (mean 3.5 hours). A previous report of baclofen overdose showed a secondary increase in baclofen concentrations into the therapeutic range after an initial decrease, probably due to its slow release from the central nervous system and lipid stores.1 This may explain the delay in presentation of our patient.

Competing interests: None declared.


Endpiece

Pleasures

The three most dangerous are the pleasures of the table, the hunting after honours, and the possession of riches. These desires increase with the age of men.


Submitted by Jeremy Hugh Baron, honorary professorial lecturer, New York