USE OF SINGLE HIGH DOSE OF PHENYTOIN SODIUM FOR MANAGEMENT OF A CASE OF ECLAMPSIA

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Introduction

Eclampsia has been an obstetrician's dilemma with various treatment protocols, all of which have been found to have merits and demerits in various situations. Parenteral magnesium sulphate therapy was introduced by Lazard and modified to current form by Pritchard [1,2]. Menon [3] introduced the lytic cocktail therapy. Diazepam regimen has been extensively used since 1968 [4].

With the limited resources and facilities available in peripheral Army hospitals, extensive monitoring required for all these regimens has been a problem and disadvantage with the treating obstetricians. Further in view of life threatening complications for mother and foetus a need is felt for a safe anticonvulsant which is effective and requires almost no drug related monitoring.

Case Report

A 21 year old primigravida, an unbooked case with 28 weeks amenorrhea was admitted to this hospital with eclampsia. She was brought to hospital in an unconscious state with history of multiple convulsions occurring every ten to fifteen minutes. Convulsions were generalised tonic clonic in nature. On examination she had massive facial and pedal edema. The blood pressure was recorded as 180/120 mm of Hg. Systemic examination revealed a pregnancy of 28 to 30 weeks with foetal heart feeble and slow. On auscultation, lungs had diffuse coarse crepitations with conducted sounds heard all over the chest. Neurological examination did not reveal anything abnormal. An internal examination was done and cervix was found to be tubular with external os tightly closed. Investigations revealed albuminuria +++ with high normal renal function tests. Blood urea was 40 mg% and serum creatinine 1 mg%. Other relevant investigations were within normal limits.

Patient was administered 900 mg of phenytoin sodium as a single dose [5] given slowly at the rate of 50 mg/min. In addition sublingual nifedepine 5mg was used when ever blood pressure was found to be more than 160/110 mm of Hg. Monitoring was based on *Glasgow coma scale* [6,7] as there was no CNS depression. Nutrition was maintained with intravenous fluids and supportive therapy was provided. Patient did not have any convulsions after starting the treatment. The level of consciousness improved. The cervix was ripened with intra cervical application of

cerviprime jelly and labour was induced and augmented with pitocin. She delivered a still born baby 40 hrs after admission. Postnatal period was covered with diazepam for 48 hrs. Patient made uneventful recovery thereafter. On 7th postnatal day BP was recorded as 140/90 mm of Hg. Renal parameters reverted to normal and the patient was discharged on 8th postnatal day.

Discussion

The existing management protocols of magnesium sulphate [2] lytic cocktail and diazepam [4] all have inherent risks like respiratory depression and aspiration pneumonia in mother. More over the problem of monitoring the patients in peripheral hospitals is itself a dilemma. These problems can be eliminated with use of phenytoin sodium. A single high dose of phenytoin sodium seems to be safe for treatment of convulsions in eclampsia. It does not require any special care and has no untoward effect on mother and foetus as has been reported by Coyaji and Otiv [5]. Probably with more extensive study on this protocol, phenytoin sodium might find its way into therapeutics of eclampsia.

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