ORAL PRESENTATIONS 1

OP1.1

A DESCRIPTIVE STUDY OF APNOEA OF PREMATURITY IN INFANTS LESS THAN 34 WEEKS OF GESTATION AND A COMPARATIVE STUDY OF ORAL CAFFEINE VERSUS ORAL AMINOPHYLLINE IN THE TREATMENT OF APNOEA OF PREMATURITY

Lim Boon Soo, Lim Chin Theam

Department of Paediatrics, Faculty of Medicine, University Malaya Medical Centre, Kuala Lumpur

Objectives: To study the incidence of apnoea of prematurity (AOP) and to compare the efficacy and safety of oral aminophylline with oral caffeine in the treatment of AOP.

Method: This was a prospective study. All preterm infants of Malaysian origin less than 34 weeks of gestation, admitted to the Special Care Nursery (SCN), University of Malaya Medical Centre (UMMC) from 1st May 2008 to 28th February 2010, were included in the descriptive study. Those on intravenous aminophylline, when weaned from ventilator support were allocated to either oral aminophylline (control group) or oral caffeine (study group) to compare the efficacy and safety of these two drugs.

Results: The overall incidence of AOP was 49.0%. Almost all infants ≤ 29 weeks of gestation or birth weight ≤ 1,000 grams had AOP. The incidence of AOP decreased with increasing gestational age and larger birth weight (p<0.05). AOP was significantly associated with pregnancy-induced hypertension, chronic lung disease (CLD) and retinopathy of prematurity (ROP) (p<0.05).

Oral caffeine treatment had decreased the frequency of AOP and the duration of oxygen usage (p<0.05). It was comparable with oral aminophylline in terms of needs for bag-mask ventilation and re-intubation, mean weight gain and total duration of hospitalization. Both oral aminophylline and oral caffeine had minimal side effects and were not associated with CLD, ROP and intaventricular haemorrhage (IVH).

Conclusion: The overall incidence of AOP was high among infants ≤ 29 weeks of gestation or birth weight ≤ 1,000 grams. Oral caffeine is superior to oral aminophylline for treatment of AOP.