

LETTER

Postnatal glucocorticoids in preterm neonates: use in French neonatal centres in 2006

In 1999, 80% of French neonatal centres used corticosteroids, mainly betamethasone, to prevent or to treat bronchopulmonary dysplasia (BPD).¹ As many data suggested a low benefit/risk ratio, an updated assessment of this use was necessary.²⁻⁵

METHODS

Questionnaires addressing the use of and indications for corticosteroids were sent to all French neonatal centres.

RESULTS

The study was performed over five months (July–November 2006). Questionnaires were sent to 202 centres, of which 186 (92%) centres completed them. Of these 186 centres, 147 (79%) units had a standard protocol for corticosteroids use, covering systemic and inhaled steroids (76 units), systemic steroid therapy only (30 units) and inhaled steroids only (41 units).

Systemic corticosteroids were used in 106 centres for haemodynamic reasons in 42 cases (40%), prevention of BPD in one case (1%), early treatment of BPD (day 4 to day 21) in 23 cases (22%), and late treatment of BPD (after day 21) in 74 cases (70%). Hemisuccinate hydrocortisone (HSHC) was the only corticoid used for haemodynamic failure. The steroids used for early treatment of BPD were betamethasone (21/23), dexamethasone (1/23) and HSHC (1/23). The duration of treatment was less than 4 days in 10 centres (43%). The steroids used for late treatment were betamethasone (67/74), HSHC (4/74) and dexamethasone (3/74). The duration of treatment was less than 4 days in 29 centres, between 4 and 8 days in 22 centres and greater than 8 days in 26 centres. Among 117 centres administering glucocorticoids by inhalation, 74% used budesonide, 45% used beclomethasone and 8% used fluticasone. Use of corticosteroids was higher in teaching hospitals (86%) than in others (49%), probably due to the immaturity of the neonates in these centres.

DISCUSSION

The high response rate (92%) ensures that our data are representative. We found that corticosteroids are still frequently used in preterm infants in France, but only after the fourth day of life, to treat BPD and not as prevention therapy. We also found marginal use of dexamethasone, in accordance with reports of both short-term (digestive complaints, hyperglycaemia, arterial hypertension) and long-term (delayed growth affecting both height and weight, and neuropsychological development) adverse

side effects²⁻⁵ suggesting an unbalanced benefit/risk ratio, despite its beneficial effect on respiratory status. In France, betamethasone is often used, as are inhaled steroids, in spite of the weak evidence base regarding its efficiency and long-term tolerance.

Our findings indicate the need for national recommendations and trials to assess oral betamethasone treatment in premature neonates with BPD.

ACKNOWLEDGEMENT

We would like to thank Dr S Guyétant, Service de Pharmacologie du CHRU de Tours, for her helpful expertise in quality control in this study.

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Funding: This study was funded by the Agence Française de Sécurité Sanitaire des Produits de Santé (AFSSaPS).

Competing interests: None.

Arch Dis Child Fetal Neonatal Ed 2008;000:F000.
doi:10.1136/adc.2008.141085

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