Non-blanching rash in an infant with bronchiolitis

CASE STUDY

A 3-month-old boy, born at full term, previously healthy and fully immunised presented with a three-day history of cough, mild cold, mild fever and decreased feeding. The risk factors for bronchiolitis illness in an infant include prematurity, congenital cardiac defects, exposure to tobacco smoke, absence of breastfeeding and age less than 3 months (Paul et al, 2011). This is commonly seen in infants and young children; respiratory syncitial virus (RSV) is responsible in up to 90% of the cases.

Bronchiolitis accounts for about 20,000 hospital admissions per year in the UK (Paul et al, 2011). However, an infant presenting with a fever and rash from bronchiolitis illness can sometimes present a diagnostic challenge to the paediatric team due to the fear of meningococcal disease. In a study of 233 infants and children presenting with a non-blanching rash, only 11% of the children had a proven meningococcal infection (Wells et al, 2001).

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Initial observations showed a temperature of 36°C, a pulse rate of 152 beats per minute (bpm), a respiratory rate of 36 bpm, oxygen saturations of 98% in air and a central capillary refill time of 2 seconds. He was settled during the examination with mild respiratory distress. A few non-blanching petechial rashes were noted over the right upper limb and parents reported evolving new rashes. The baby was admitted and, because of the fever and petechial rash, blood investigations were conducted.

Ongoing management
Inflammatory markers were mildly abnormal suggesting infection. In view of the clinical condition and blood results, the child was given a dose of intravenous ceftriaxone.

The treatment of bronchiolitis is mainly supportive care, which includes administration of supplemental oxygen, maintenance of fluid balance and supporting nutrition via nasogastric tube feeding or intravenous fluids; none was needed in this case (Bracht et al, 2011). He remained well over the next 12 hours and no further spread of non-blanching rashes were noted. A nasopharyngeal aspirate confirmed the presence of RSV.

Conclusion
This case illustrates the importance of being aware of the difficulties when faced with a child with a non-blanching rash. It is important that blood investigations are carried out to rule out serious bacterial infections. If a clinical suspicion of meningococcal disease arises, it is advisable to start antibiotics.