# 1 The normal infant



### Mongolian blue spot

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| *Incidence* | Almost universal in non-Caucasian neonates. Particularly obvious in Asian infants and occasionally also occurs in Caucasian infants with dark hair. |
| *Clinical features* | Slate grey or bluish pigmentation, usually in the lumbosacral region (Fig. 1), but may occur anywhere on the trunk or limbs (Fig. 2). May be mistaken for bruising by the inexperienced. |
| *Prognosis* | Becomes less obvious as the infant grows older. |

### Erythema toxicum (urticaria of newborn, eosinophil rash)

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| *Incidence* | Extremely common, except in preterm infants. Majority of term infants are affected in first week of life. |
| *Aetiology* | Vesicles are full of eosinophils. |
| *Clinical features* | Widespread, fluctuating erythematous maculopapular rash (Fig. 3), usually beginning after birth at any time in the first week. Individual lesions consist of a white central papule surrounded by an erythematous flare. |
| *Significance* | None, except may occasionally be mistaken for septic spots. Aetiology unknown. |
| *Management* | None required, as rash disappears spontaneously. |

### Milia (milk spots)

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| *Incidence* | Very common, seen in 40–50% newborn infants. |
| *Pathology* | Milia are hypertrophic sebaceous glands. |
| *Clinical features* | Milia are fine white spots seen on the nose and cheeks (Fig. 4). |
| *Management* | Disappear spontaneously, but occasionally mistaken for infection. No treatment required. |

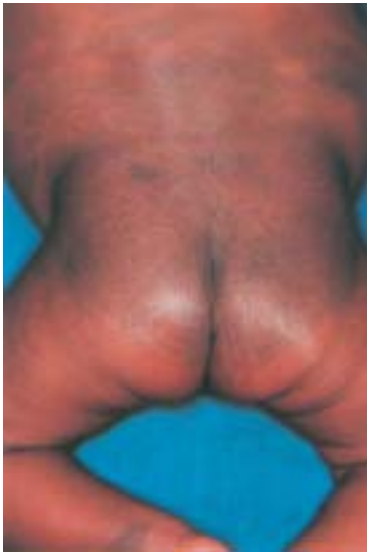

**Fig. 1** Typical Mongolian blue spot in lumbosacral region.

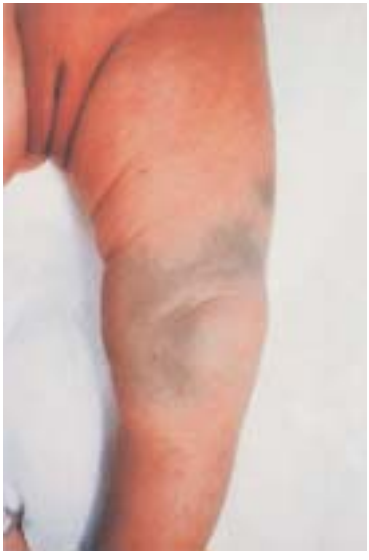

**Fig. 2** Mongolian blue spot around the knee.

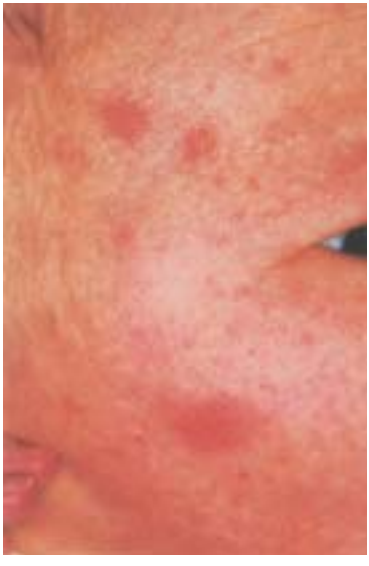

**Fig. 3** Erythema toxicum on the face.

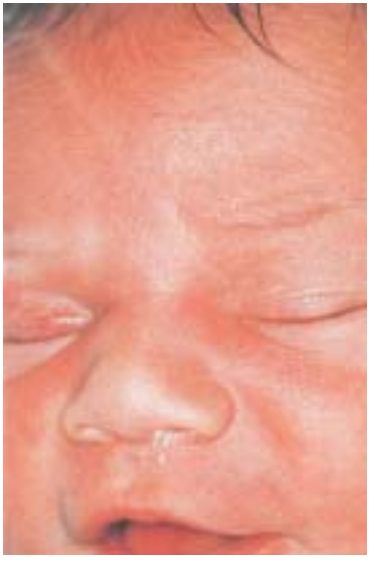

**Fig. 4** Milia on nose.

## Epithelial pearls

*Clinical features*: Often occur in clusters as white spots in the mouth (Fig. 5) in midline at junction of hard and soft palate (Ebsteins pearls). May also occur on alveolar margin or prepuce.

*Pathology*: Epithelial pearls are epidermal cysts.

*Course and prognosis*: They disappear spontaneously. No treatment is required.

## Natal teeth

*Incidence*: Uncommon, but there is often a family history of natal teeth.

*Clinical features*: Commonly occur in the central lower incisor region (Fig. 6). Usually only loosely attached.

*Management*: Best removed early in order to prevent aspiration, or ulceration of the tongue. Extraction will not deplete permanent dentition.

## Ranula

*Clinical features*: Mucous retention cyst under the tongue (Fig. 7). Deeper cysts may occur in relation to submandibular or sublingual ducts.

*Management*: Often disappear spontaneously. Large cysts may occasionally interfere with feeding, and surgery may then be indicated (marsupialisation).

## Sacral pits and dimples

*Clinical features*: Common over the sacrum (Fig. 8). Usually blind-ending. Fistulae can usually be excluded by inspection, ultrasound may be helpful. A prominent coccyx can often be palpated in the base.

*Associations*: Other midline abnormalities (e.g. lipomas, hairy naevi or haemangiomata) may occur higher on the back and may be associated with tethering of cauda equina (diastatomyelia).

*Management*: None required, providing a fistula has been excluded.

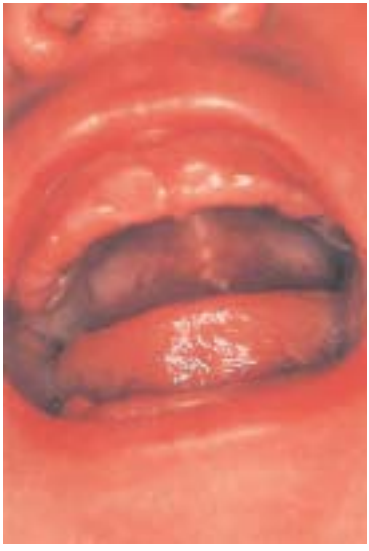

**Fig. 5** Epithelial pearls in the midline of the palate.

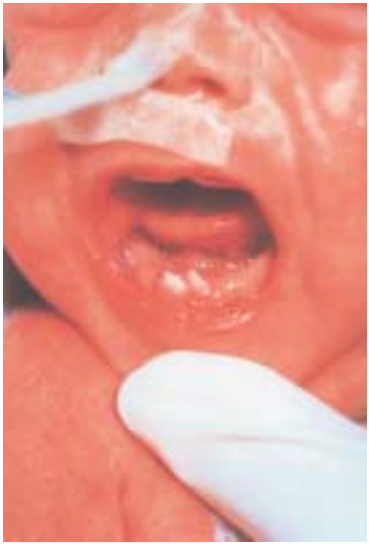

**Fig. 6** Natal teeth.

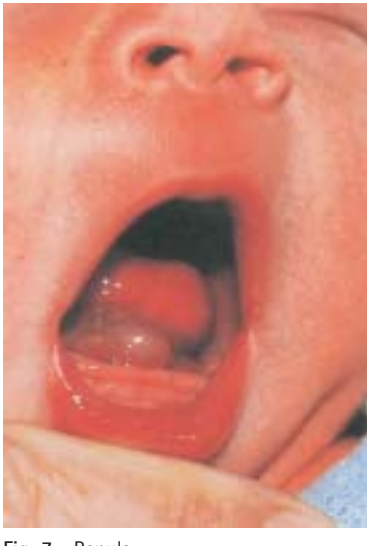

**Fig. 7** Ranula.

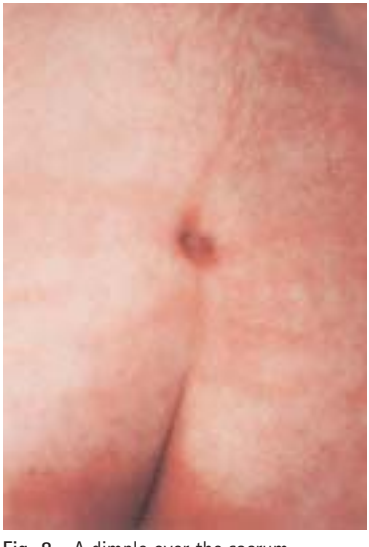

**Fig. 8** A dimple over the sacrum.

### Hormonal manifestations

*Clinical features*

30–40% newborn infants, including male infants, have palpable breast nodules (gynaecomastia) due to placental transfer of maternal oestrogen, progesterone and prolactin. Breast enlargement, often with lactation (witch's milk) is present during the first weeks of life. A tag of mucous membrane is often present in the posterior vulval region of newborn female infants. Discharge of mucus or vaginal bleeding (Fig. 9), occurs in some infants a few days after birth.

*Management*

No treatment is required. Vulval tags shrivel up within a few weeks. Gradual involution of breast tissue occurs over a few months. Parents can be reassured about the physiological nature of these events and advised not to squeeze the breasts. Antibiotics are only necessary if the breast becomes infected (mastitis), which is rare.

### Vernix caseosum

*Clinical features*

Slimy, ointment-like white substance on skin of some term infants at birth. It is usually found on the face, ears and in folds of neck or groin (Fig. 10), but is occasionally liberally caked all over the body. Vernix is sometimes stained by meconium if there was fetal distress before birth.

### Vascular phenomena

*Incidence*

Very common.

*Aetiology*

Innocent manifestation of vasomotor instability.

*Clinical features*

Peripheral cyanosis is very common in the first few days after birth. It occurs in the extremities and around the mouth. There is no central cyanosis. Harlequin colour change is a very rare, but dramatic colour change with vivid midline demarcation of colour (Fig. 11).

*Management*

None required.

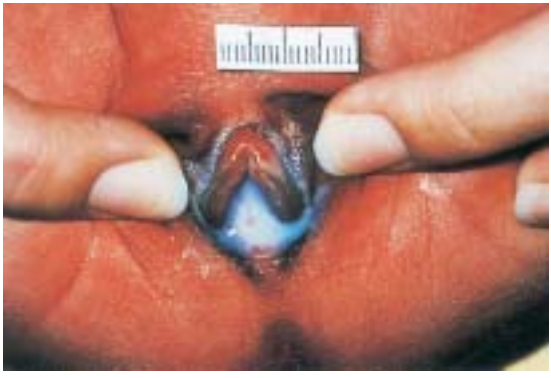

**Fig. 9** Posterior vulval tag.

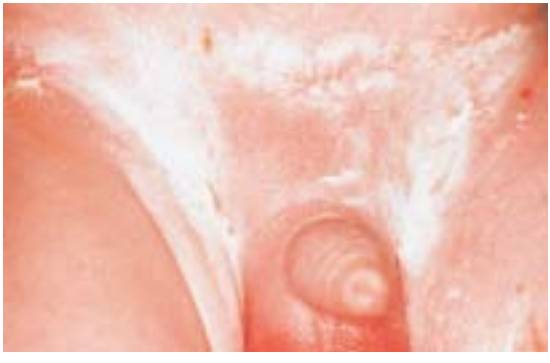

**Fig. 10** Vernix caseosum in the groin.

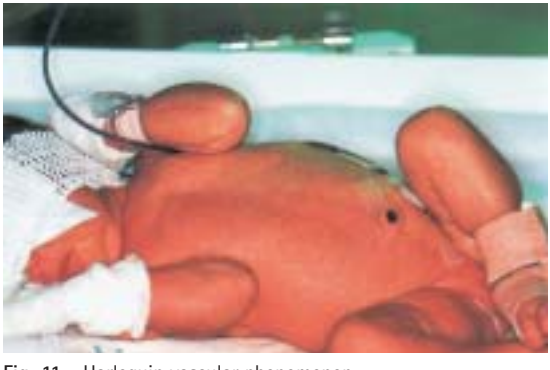

**Fig. 11** Harlequin vascular phenomenon.

## Umbilical cord

*Clinical features*

Fleshy translucent cord containing two arteries and one vein (Fig. 12). A single umbilical artery may be associated with other congenital abnormalities. The cord separates within 7–10 days by dry gangrene or with a residual moist base. Frank discharge or cellulitis with a red flare around the umbilicus indicates infection and requires systemic antibiotics. Serosanguineous discharge or a fleshy protuberance from the base may be an umbilical granuloma or rarely a vitello-intestinal remnant or persistent urachus.

*Management*

Granulomas usually resolve spontaneously or with local application of silver nitrate. Topical antibiotics may actually delay separation. Adherence of umbilical cord beyond 3 weeks may be associated with chronic granulomatous disease.

## Sucking pad (sucking callous)

*Clinical features*

Thickened epithelium of mucous membranes of lips (Fig. 13) in first few weeks of life.

*Management*

The cause is unknown, but they are not related to pressure or trauma as they occur before suckling and are often present at birth. Sucking pads disappear spontaneously.

## Stools

*Clinical features*

Meconium is sticky, tarry, greenish–black stool (Fig. 14 ) passed by newborn infants. It is odourless, and contains mucus, epithelial debris and bile from the gastrointestinal tract. Meconium may be passed by the fetus before birth if there is fetal distress. Inhalation of meconium causes pneumonitis with severe respiratory distress. If meconium is present at birth, vigorous suction and resuscitation are indicated before the first spontaneous breath. Failure to pass meconium within 48 h of birth may indicate intestinal obstruction. After feeding, stools gradually change in colour and consistency, becoming softer, greenish in colour and mixed with mucus for a few days. Breast-fed stools are usually soft or semi-formed, but are sometimes liquid and mustard yellow in colour with a faint sweet odour. Frequency varies, but often passed after or during each feed. Formula fed babies usually pass firmer, browner and less frequent stools than breast-fed infants.

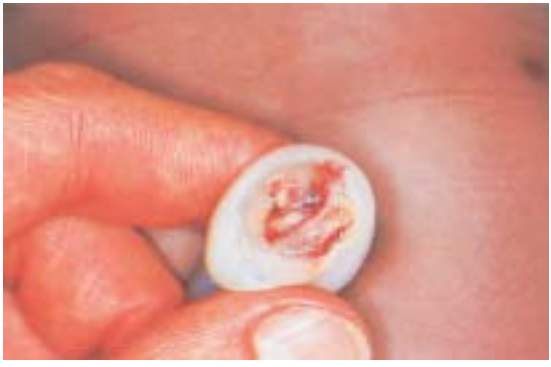

**Fig. 12** Cut surface of umbilical cord showing two arteries and one vein.

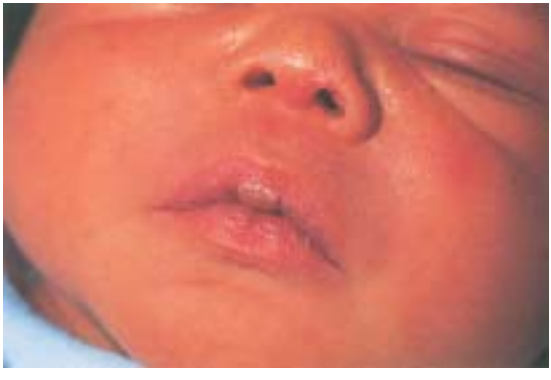

**Fig. 13** Sucking pad on lip.

**Fig. 14** Meconium.

## Jaundice

*Incidence*

Very common. About 50% of full-term infants and 80% of preterm infants are visibly jaundiced by 3–5 days of age.

*Pathology*

- Early jaundice occurring within 24–48 h of birth is usually due to abnormal haemolysis, infection, or bruising.
- Physiological jaundice appears after 48 h of age and usually subsides within 7–10 days. It is mainly unconjugated bilirubin due to increased red cell destruction and immaturity of hepatic enzymes.
- Prolonged jaundice lasting beyond 14 days is sometimes seen in normal preterm or breast-fed infants, but other conditions should be excluded, especially hypothyroidism, galactosaemia, liver disease, red cell enzyme defects and biliary atresia.

*Clinical features*

Yellow staining of the skin (Fig. 15) and conjunctivae. Hepatosplenomegaly indicates the presence of abnormal haemolysis, infection or a metabolic disorder, and is not found in physiological jaundice.

*Significance*

Very severe unconjugated hyperbilirubinaemia may cause permanent brain damage (kernicterus) with athetoid cerebral palsy and sensorineural deafness.

*Management*

Observe jaundice clinically and monitor plasma bilirubin level. Investigation may be required if jaundice appears earlier than 48 h, is prolonged beyond 14 days or is unusually high at any stage. Dehydration and drugs such as sulphonamides, which compete with bilirubin for albumin-binding, should be avoided. There is no evidence that extra fluids are needed or hasten the resolution of jaundice in normal infants. Phototherapy (Fig. 16) or exchange transfusion may be required in some infants with high levels of plasma bilirubin. Some jaundiced babies, particularly those with severe rhesus haemolytic disease develop a curious bronze colour under phototherapy (Fig. 17).