Prepuce Epstein pearls on the tip of penis

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DESCRIPTION

A term male healthy neonate born at 39 weeks of gestation via scheduled C-section to a 31-year-old G5P5 mother with adequate prenatal care and significant prenatal history of sickle cell trait, obesity and thrombocytopenia. All the initial infection screening including HIV/Hepatitis B, C/Syphilis/GBS/Gonococcal/Chlamydia was negative. There was no maternal history of sexually transmitted infections. Baby was born with birth weight of 3.6 kg, head circumference of 36 cm and length of 50 cm. The clinical examination of baby was unremarkable except for a cerulean mark on the back and lesion on the tip of penis was noted as shown in figures 1 and 2. Evaluation of the external genitalia showed small, white, pearly lesions at the tip of the foreskin that were partially obscuring the urethral meatus. No spontaneous drainage was noted from the lesions. The infant was voiding without difficulty and feeding well at the breast. There were no similar lesions noted on the rest of the body or mucosal surfaces.

The differential diagnosis of pearly lesions on the penile tip could be:

1. Preputial Epstein pearls: small pearly white to yellow papules that contain keratin, similar to Epstein pearls found on a newborn's palate. The incidence of preputial pearls has been reported to be 7.3 per 1000 live-born male neonates among Indian children.¹ It is a benign condition that occurs due to accumulation of keratinised epithelial cells during fetal development.

Figure 1 Lesion at the tip of penis of newborn.

Figure 2 View of lesion at the tip of penis.

2. Smegma pearls: these are seen in uncircumcised children where it presents as a painless single or whitish yellow pearly nodule over the glans. It occurs due to collection of smegma between the base of glans and attachment of preputial membrane with the glans. It is usually seen in older children.
3. Preputial cysts: preputial cysts are located under the glans and presents as a nodular swelling. It occurs due to collection of dead skin.
4. Median raphe cyst: this presents as a solitary mobile nodule at the ventral surface of the penis formed due to tissue trapping during the development of urethral folds. The location of this lesion helps to differentiate from preputial Epstein pearls.²

Preputial Epstein pearls are formed due to plugging of the pilosebaceous or eccrine ducts and contain keratin-like substance. Penile pearls spontaneously exfoliate, and management is mainly reassurance. Our index child was circumcised the following day, and the penile pearls were removed along with the foreskin. It was not sent for histopathological examination.

Preputial Epstein pearls can be a potential source of lot of concern and anxiety to the parents. Paediatricians who are unaware of this benign condition may overtreat it with unnecessary investigations, puncturing, antibiotics and so on. It is important to counsel the family that this is a self-resolving physiological condition requiring no intervention.³

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Learning points

- ▶ Preputial Epstein pearls are a benign finding in newborn and does not need further investigation.
- ▶ Reassurance to parents is vital to avoid unnecessary anxiety.

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