

## Managing pearly prepuce - Active communication and masterly inaction

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### ABSTRACT

Epstein pearls are small inclusion cysts and are found on the hard palate of the newborn infants in the early neonatal age. These may be present on the prepuce and are referred as prepuccial Epstein pearl. Epstein pearls need no treatment but parental anxiety needs to be addressed by active communication and counselling.

**Key words:** *Newborn, Palate, Prepuccial Epstein pearl*

Many newborn infants show few creamy white rounded epithelial inclusion cysts on the hard palate which are self limiting and disappear in few days or a week. These are called Epstein pearls when present on the hard palate and Bohn's nodules when found on the gums [1]. Although these may mimic oral candidiasis, palatal Epstein pearls do not raise much concern to the parents apparently because these are not easily visible. Sometimes, these inclusion cysts may be found on the prepuce or anywhere on the median raphe of the shaft of the penis [2]. Referred as prepuccial Epstein pearl (PEP), its occurrence evokes lot of concern and anxiety to the parents. Lack of awareness in the health-care providers about this condition leads to unnecessary investigations and medication although PEP is benign in nature and disappears on its own in few days. We came across two cases having PEP which we thought to present here as most physicians and nurses looking after mother and child are not aware of this entity and discussion on the subject would help them appropriately manage such cases.

### CASE REPORT

#### Case 1

A term, normal birth weight, healthy neonate was born to a primipara mother. Two white dot-like, palpable and firm structures, 1 mm in diameter each, were found on the prepuce at 6'o clock position about 3 mm apart (Fig. 1). These were extending proximally toward median raphe and were noted on physical examination at 12 h after birth by the consultant. The pearly structures were cleaned with moist cotton swab to distinguish them from smegma and were found to be firmly adhered to the prepuce. They did not hinder the urinary stream. Prepuce could be retracted to visualize meatal opening. Scrotum was normal with two descended

testes. Palatal Epstein pearls were not present. There was no apparent congenital anomaly, and systemic examination was within normal limit.

The infant was active and accepting breastfeed well. The mother on learning about the presence of PEP got scared and exhibited great anxiety. Empathy and acceptance of her concerns calmed her. The mother was given relevant information about benign nature and course of the PEP. Early neonatal period was uneventful and the baby was discharged with a regular follow-up plan. On follow-up at 1 week of age, both PEPs have disappeared without leaving any scar or staining.

#### Case 2

This was a full-term appropriate for gestational age and second in birth order infant. The mother noticed a white papule on the foreskin while changing the nappy. She was very worried. On examination, the infant had single Epstein pearl, about 2 mm in size, on the prepuce at 6'o clock position (Fig. 2). The prepuce could be barely retracted and meatal opening could not be visualized. It did not affect urinary stream. Three Epstein pearls were present on the hard palate. Rest of the local and systemic examination of the infant was normal.

The mother was counseled. By showing empathy and paraphrasing, her concerns were accepted and her feelings were respected. Relevant information included benign and innocuous nature of the PEP, its eventual disappearance, and no need of any investigation and medication or surgery. The baby was active and the mother was comfortable breastfeeding him. The family was reassured and the infant was discharged at day 5 of life with weekly follow-up. At 3 weeks of age, the PEP was still visible at the same site and color but reduced in size. The mother was reassured by emphasizing that size of the PEP has regressed and PEP will disappear soon. This information built her confidence



Figure 1: Prepuccial Epstein pearl-double



Figure 2: Epstein-single

and made her comfortable. However, the family was lost to further follow-up.

## DISCUSSION

Together with if gives comfort to each other, the mother also gets an opportunity to see, smell, feel and touch her child and be familiar with his body in the early neonatal period. Any deviation in the appearance, structure, and shape of the body, and change in the function and activity of the child from the common perception is very disturbing to the mother and maternal instincts perceive it as a serious risk to child's survival and well-being. The presence of PEP is viewed by the parents as a serious problem and causes great mental agony to them although it is self-resolving and does not need any intervention [3]. Maternal anxiety can affect oxytocin reflex and may cause breastfeeding failure if it is not addressed by proper communication and counseling.

Palatal Epstein pearls are found in 80% of the healthy live born neonates, but true incidence of the PEP is not known [1]. Faridi and Adhami and Singh and Gupta have reported incidence of PEP 7.3 to 18.2 in 1000 live-born male newborn infants from India [3,4]. Both these studies showed an incidence which is less than what has been reported from abroad [2,5]. PEP usually disappears within 96 h of birth but may persist for a week and may be situated anywhere on the foreskin and median raphe. It

is neither due to viral, bacterial, or fungal infection nor has any association with smegma. The condition is self-limiting and no medico-surgical intervention is required [6]. PEPs like palatal Epstein pearls are retention cysts and contain keratin unlike pearly penile papules, otherwise known as *hirsuties coronae glandis*, in adults which are derived from smegma and disappear usually with aging and regress with circumcision [7-9].

PEPs usually disappear within a week but may persist up to 3 weeks [3]. In our second case, the single Epstein pearl persisted in the 3<sup>rd</sup> week after birth though its size had reduced. The PEP is found more frequently in term and normal birth weight infants independent of palatal Epstein pearls [4,5]. It has also been reported that PEPs are not found in the first born babies [3]. Our cases had some unique features which have not been reported so far. We did not find any reference in the literature to the occurrence of double Epstein pearls on the prepuce; our case was the first case where two distinct Epstein pearls were present on the prepuce and median raphe. We also found that PEP was present in the first borne infant contrary to earlier reports and it can persist well beyond 3 weeks [3].

The message we try to convey from these two cases is that PEP is not an uncommon entity; it is a self-limiting physiological variation in the infants and requires no treatment, but it gives anxiety to parents. Mothers generally perceive PEP as serious problem. Nurses are also equally overwhelmed, and none of them have seen these lesions before compounding their anxiety as well. Almost all resident doctors have never seen PEP and this makes them vulnerable over treating these infants by investigations and antibiotics. Since PEP is not described in many standard textbooks of pediatrics and neonatology, physicians and child health-care providers may not be aware of this benign condition and may over treat it due to ignorance and parental pressure [6].

## CONCLUSION

PEP is to be managed conservatively only. There is no role of any medicine or surgical intervention. It is to be emphasized that active communication and parental counseling and close monitoring are the cornerstone of management of PEP.

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