Dear Editor,

Milia are tiny epidermoid cysts, and are quite common at all ages from infancy onwards. Primary milia develop spontaneously, while secondary milia occur after trauma or other injury to the skin. Milia most commonly occur as multiple lesions in the areas of vellus hair follicles, and on the cheeks and eyelids in particular.1,2 However, involvement of the nipple is very rare, with only one case reported.3,4 This case report describes a child diagnosed with a congenital primary milium of the nipple. The milium was also large enough to be described as an epidermal inclusion cyst.

A 16-month-old boy presented with a solitary pearly, 5-mm, domed growing nodule of the right nipple that had been present since birth (Figure 1). His mother stated that the lesion had been present as a very small white pimple at birth, but was becoming more obvious and continued to enlarge gradually until presentation. There were no associated symptoms of pain or nipple discharge. On palpation, the lesion was firm, cystic, and nontender. There was no underlying mass in the breast tissue, and the contour of the areola was maintained. The left breast was completely normal. Ultrasonography showed a solid, homogeneous, hypoechoic and well-circumscribed cyst. An excisional biopsy was carried out for the purpose of diagnosis and treatment. Sectioning revealed a cystic structure containing soft cheesy material. Pathologic examination showed a cyst lined with stratified squamous epithelium with lamellated keratinous material in the lumen (Figure 2). Based on these findings, it was diagnosed as a giant milium.

The base of the nipple is surrounded by the areola, and the nipple is quite different from the areola in many ways. The skin of the nipple is continuous with the lining epithelium of the lactiferous ducts, the understructure of the epidermis of which is more elaborate than that of the areola.5,6 A review of the literature on milia involving the nipple–areolar complex in children revealed four cases and one case dealing with milia localized to the areola and the nipple, respectively.3,4 As cases were solitary lesions that varied in size and tended to persist, milia localized to the areola in four pediatric patients (10 days old to 4 years of age) were considered to be a regional variant of milia, and were classified as a form of primary milia.3 In three patients, the lesion developed after birth, and the remaining lesion was congenital. The case in which the milium arose from the nipple was a giant milium measuring approximately 8 × 8 mm in a 15-month-old child.4 This is the only case reported involving the nipple of a child, and was very similar to our case. However, that case was deemed to be secondary because the lesion occurred approximately 1 year following mechanical trauma due to squeezing of the breast. In our case, the cyst developed congenitally, and is considered to be a primary milium. As such, a congenital primary milium arising from the nipple has not previously been reported in the literature.

Milia are very common, benign, keratin-filled, small epidermal inclusion cysts measuring 1–2 mm in diameter that may arise from the pilosebaceous apparatus or the eccrine sweat ducts. Primary milia are seen in up to 50% of newborns and usually occur on the face, especially the nose, upper trunk, and extremities, but usually resolve over a span of weeks.7 Secondary milia are found anywhere on the body at sites affected by a predisposing condition. The pathogenesis of primary milia is thought to be keratotic cyst formation resulting from abnormality of the embryonic epithelial bud, whereas secondary milia are believed to more commonly derive from eccrine ducts than from overlying epidermis, hair follicles, or sebaceous ducts. Due to its congenital nature, the cyst in our case is conjectured to be derived from the embryonic epithelial bud in the nipple. Milia must be distinguished from milia-like idiopathic calcinosis cutis, miliary osteomas, syringomas with milia-like structures, trichoepitheliomas, comedonal acne, and flat warts. Milia can be safely left alone, but if the patient requests treatment, then incision with a cutting-edge needle and manual expression of the contents are effective.8

In conclusion, milia occurring on the nipple are extremely rare, although milia are a well-known entity that can involve the...
nipple–areolar complex. Our report is of interest due to the rarity of congenital primary milium arising from the nipple; to our knowledge, this is the first reported case.

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References


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