Recurrent Rusty Pipe Syndrome: A Case Report

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Sir,

The first milk after delivery is a boon to the newborns. The onset of lactation also plays a crucial role in strengthening the bond between the baby and mother. During the lactation period, bleeding from nipples can cause severe maternal anxiety. In literature, secretion of bloody milk from the breast has been described as rusty pipe syndrome (RPS), which is a rare condition with a prevalence rate of 0.1%. It is a benign physiological condition that causes painless bloody discharge or milk from nipples in pregnant and postpartum women. RPS commonly occurs in primiparous women and is usually bilateral. Apart from RPS, other common causes of bloody discharge from nipples are cracked nipples, mastitis, and ductal papilloma.[1] It usually appears during the first few days of breastfeeding and self-resolves within 3–7 days.[2] No treatment is required. Diagnosis is based upon history and examination of the breast, followed by investigations, cytological analysis, and breast ultrasound to rule out other pathological conditions.[3] RPS is much more common than its presence in the published literature.

A 25-year-old second gravid patient delivered a baby boy with a weight of 2.92 kg at 37 weeks 4 days gestational age *via* cesarean section. The indication for her lower segment cesarean section (LSCS) was tenderness in the previous LSCS scar. The mother noticed painless bloody discharge from both breasts when she expressed milk at the time of initiation of the first breastfeed (Fig. 1). She reported a history of similar discharge during her last pregnancy. There was no apparent history of trauma or nipple manipulation. She did not report any occurrences of pruritus over or around the nipple area that could have led to traumatic scratching or manipulation. On gross examination, no abnormality was observed. On palpation, neither breast revealed tenderness, engorgement, or any mass/lump. Dermatological examination revealed no cracks, erosions, or ulcers over both nipples. Cytological analysis of the expressed milk showed scattered polymorphs, small lymphocytes, foamy macrophages, fat droplets, and red blood cells. Ultrasonography revealed a few bilateral dilated retro-alveolar ducts containing moving echoes. Based on the presenting clinical symptoms and normal cytological and radiographical assessment, the diagnosis of RPS was made. The patient was advised to express milk from both breasts every 2–3 hours to avoid breast engorgement. Bloody discharge gradually changed from dark to light color and became normal by the 5th postnatal day (Fig. 2). During the period of active discharge, exclusive breastfeeding was continued.

The RPS is a benign and self-resolving condition, which is characterized by the asymptomatic blood-tinged discharge in the breast milk during the immediate postpartum period.[1–6]

Bloody nipple discharge is also a common feature of various breast malignancies and is one of the common symptoms (8–30%) of malignancy in nonpregnant patients.[5] Any discharge containing blood is always frightening to the patients, irrespective of gender. During the postpartum period, the discharge could be physiological, which resolves on its own (RPS). However, in the absence of proper counseling, RPS can lead to the discontinuation of exclusive breastfeeding in apprehensive mothers.

The etiology of RPS remains elusive. It has been proposed that physiological injuries to the fragile and fast-proliferating ductal epithelium due to hormonal stimulation during pregnancy and the postpartum period can lead to it.[1,5] Increased capillary permeability in RPS can coexist with nasal and gum bleeds simultaneously.[4]

The RPS has been predominantly observed among primiparous women, and recurrence in subsequent pregnancies has not been described before. In our case, the patient developed RPS in both of her pregnancies.[1–6] During the follow-up visits, the infants gained the expected weight as

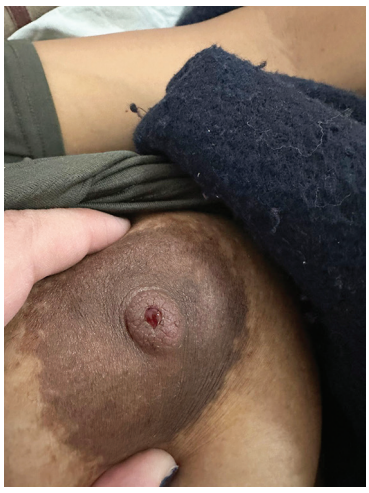

Fig. 1: Oozing of the blood-tinged nipple discharge at the time of presentation

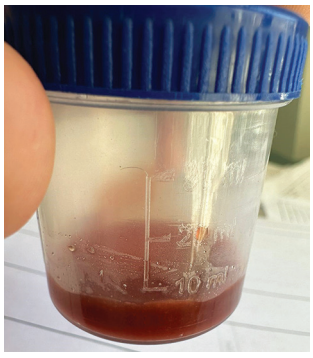

Fig. 2: The expressed breast milk admixed with the self-resolving bloody discharge of RPS

per age. There was no discharge after the 1st week from delivery.

The current case is aimed to increase awareness among healthcare professionals about the benign and self-resolving nature of the RPS. As RPS is noticed by the mother either while expressing the milk or in the vomitus of her newborn, it can undeniably cause severe psychological burden to the mother and family. The unawareness among healthcare professionals can potentially lead to inadequate counseling about postnatal care (exclusive breastfeeding) and unnecessary investigations, further aggravating the psychological and financial burden to the family of the newborn. RPS does not require treatment and resolves completely within 3–7 days of the onset.[1–6] During this period, the mother should be encouraged for continued exclusive breastfeeds through active listening, understanding her concerns, and explaining to her the nature of her presenting symptoms.

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