

Rusty pipe syndrome: A benign cause for brownish breast milk in a lactating mother

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Sri Lanka Journal of Child Health, 2021; **50**(3): 561-562

DOI: <http://doi.org/10.4038/sljch.v50i3.9750>

(Key words: Rusty pipe syndrome, brownish breast milk, lactating mother)

Introduction

Colour of breast milk varies being affected by various factors including diet, medications and disorders of the breast¹. Brownish or chocolate colour breast milk occurs due to presence of blood in breast milk. We report a patient with rusty pipe syndrome which is a self-resolving case of brownish breast milk.

Case report

A primiparous mother aged 41 years, with a history of primary subfertility for 13 years, gave birth to a baby girl with intrauterine growth restriction, by unassisted vaginal delivery at 37 weeks of gestation with a birth weight of 1600g. Breast feeding was initiated within 30 minutes of birth. Establishment of breast feeding was complicated by poor attachment and positioning. Baby had asymptomatic hypoglycaemia on day 2 where the lowest capillary blood sugar (CBS) level was 30 mg/dl, which rose to 51 mg/dl after expressed breast milk was given. Breast milk was brownish in colour and was darker in the right breast on day 2 (Figure 1).

This led to significant maternal anxiety and distress. Mother was not taking medications or food that could cause breast milk discolouration. Breasts were healthy on examination with no cracks, ulcers, tenderness or any underlying palpable lump. Patient

was advised to continue breast feeding and appropriate support was given. Baby did not refuse breast feeding. Colour of breast milk normalised by 6-7 days. It was normal when reviewed after 9 days in Lactation Management Centre (Figure 2).

Discussion

Incidence of blood stained breast milk is estimated to be 0.1%². It commonly occurs due to trauma, cracked nipples, mastitis, and vascular engorgement, which are very painful with the cause being obvious^{2,3}. Ductal papilloma is more sinister and causes unilateral painless bleeding often without a palpable mass in the non-pregnant woman^{3,4}. Nipple discharge is an uncommon manifestation of breast cancer in pregnancy⁵. Fibrocystic disease can also cause a blood discharge in the presence of a lumpy breast associated with mastalgia³.

'Rusty pipe syndrome' is a painless condition that may go unnoticed unless the mother is expressing the milk. The bloody discharge is usually bilateral but may be initially unilateral. Most cases begin around birth but may occur from mid pregnancy⁵. This is frequently missed as it is only noted in mothers who express milk for their babies, resulting in its incidence being unknown. Its pathogenesis is due to rupture of fragile capillaries which develop due to the increased vascularization of rapidly developing alveolae in breasts during the latter half of pregnancy³. It is more common in primiparous mothers and those who indulge in nipple exercises which are no longer recommended³. It usually resolves in 3-7 days. Rusty pipe syndrome is a benign condition that can be diagnosed after careful clinical and ultrasonic examination of the breast, and only requires counselling and lactational support⁶.

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(Received on 08 May 2020: Accepted after revision on 19 June 2020)

The authors declare that there are no conflicts of interest

Personal funding was used for the project.

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[https://doi.org/10.1016/0028-2243\(90\)90156-U](https://doi.org/10.1016/0028-2243(90)90156-U)

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Figure 1: Breast milk on day 2 of postnatal period



Figure 2: Breast milk on day 9 of postnatal period