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Abstract

Halo scalp ring (HSR) is a rare form of non-scarring annular alopecia that is attributed to caput succedaneum. It arises perinatally because of prolonged pressure on the scalp by the cervix during or before the delivery. We report two new cases of halo scalp ring in full term pregnancy - newborns.

Keywords: alopecia; halo scalp ring; perinatal trauma

Case synopsis

A 42-day-old girl had an area of halo alopecia noted after birth (Figure 1). The child was the product of a full-term pregnancy and was delivered vaginally to a 22-year-old primigravida. The pregnancy had been uncomplicated.

Figure 1. Halo scalp ring of the posterior scalp.

A 60-day-old girl had an area of halo alopecia noted after birth (Figure 2). The child was the product of a full-term pregnancy and was delivered vaginally to a 30-year-old primigravida. The pregnancy had been uncomplicated.

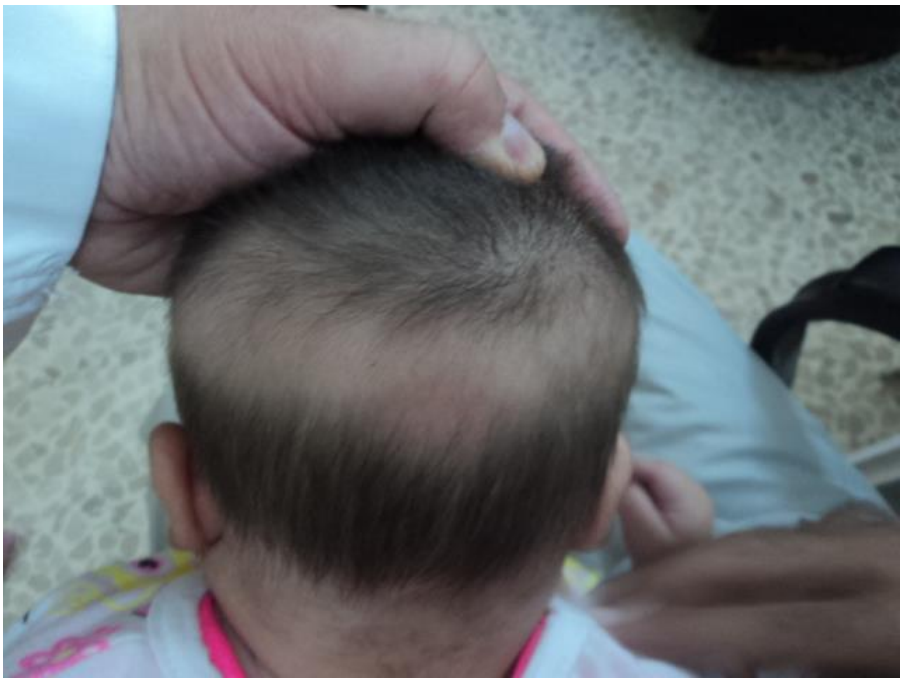

Figure 2. Halo scalp ring

In the two cases no forceps or other instrument had been used. No information was elicited about caput succedaneum at birth. On examination a halo band of alopecia was noted around the scalp, but the skin appeared normal in both cases (Figures 1, 2). Clinical presentation and hair regrowth on follow up allowed us to rule out other types of alopecia such as sebaceus nevus, triangular congenital alopecia, and aplasia cutis.

Discussion

Localized alopecia in the neonatal period may occur in areas of the scalp that have been damaged by the use of instruments such as forceps, scalp monitors, or vacuum assisted vaginal deliveries. In addition, there is a distinctive pattern of perinatal hair loss, which shows an annular configuration that has been referred to as halo scalp ring. It may appear as a temporary and non-scarring alopecia or result in permanent hair loss. It usually occurs in newborns of primigravidas, especially after troublesome deliveries; it is usually associated with a caput succedaneum [1, 2, 3].

The term halo scalp ring (HSR) was introduced by Neal et al. in 1984 [4] to describe the non-scarring annular alopecia that is attributed to caput succedaneum and arises perinatally. Caput succedaneum is a cranial subcutaneous serosanguinous extravasation, with a good prognosis, that resolves in a few days without sequelae. It is related to cervical, uterine, or vaginal pressure [5, 6]. Pressure necrosis with caput succedaneum is a result of prolonged pressure leading to reduced blood flow and hypoxic-ischemic tissue damage [7, 8]. A halo scalp ring can be as wide as 9 cm and may manifest as full-thickness necrosis or just mild alopecia, as seen in our two cases.

Hair loss is present at birth or develops a short time after birth. It appears as a band of alopecia ranging in width from 1 to 4 cm, although halo rings as wide as 9 cm has also been reported. It is usually located bordering the caput succedaneum, especially over the vertex [9].

The hair loss is usually mild and the natural course of the alopecia is a gradual regrowth as far as the injury is mild. A severe hemorrhagic or necrotic caput succedaneum may portend a poor prognosis because deep ulceration can destroy hair follicles, resulting in scarring alopecia. HSR seems to be more frequent in female infants [3]; our two cases are female. The main alternative in the differential diagnosis is aplasia cutis congenita. Triangular alopecia is another entity to consider initially.

In conclusion, recognition of halo scalp ring can prevent unnecessary work-up. Halo scalp ring is a benign process that has no systemic associations and does not warrant further investigation for congenital anomalies [9, 10].

In our two cases the diagnosis of halo scalp ring was based on clinical presentation and hair regrowth on follow up, which allowed us to rule out the other types of alopecia including sebaceus nevus, triangular congenital alopecia, and aplasia cutis congenita.

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