



TRANSIENT NEONATAL OCCIPITAL ALOPECIA – A CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT Transient neonatal occipital alopecia is a form of acute Telogen effluvium caused due to synchronous hair shedding in the occipital region seen in infants of 3 months of age resulting in hair shedding from the occipital region. Though it's a self-limiting condition, patients are often panic stricken due to sudden onset of hair loss in the infant. In this article we report a case of transient neonatal occipital alopecia along with review of literature.

KEYWORDS : Transient neonatal occipital alopecia, alopecia, acute telogen effluvium, hair shedding

INTRODUCTION

Transient neonatal occipital alopecia is a form of physiological, self-limiting , non-scarring, localized form alopecia commonly seen in the occiput of infants. Its not attributed to the friction from the pillows which aids only in shedding of hair. This form of Telogen effluvium occurs commonly in 8-12 weeks of life. It occurs a little late in dark skinned babies when compared to the ones with lighter skin tone as they have more hairs in phase of hair cycle. For a long time, it has been speculated that the scalp friction caused by the neonate's sleeping position might be a major etiology of NOA. It is recently clear, however, that NOA is a physiologic alopecia, progressing from the gestation period, rather than an acquired alopecia due to the physical friction.

CASE REPORT

A 4 month old female baby delivered by full term normal vaginal delivery (APGAR score – 10, birth weight 2.8 kgs) was brought to the Dermatology OPD by the mother with the complaints of transient hair loss over the occipital region for the past 1 month. There was no history of instrumentation or complications during delivery.

On examination: A single band of smooth non-scarring alopecia patch of size 6 X4 cm was seen over the occipital region with the upper margin merging with the hair over the vertex (figure 1). There were no signs of inflammation & scaling. The hair follicles were preserved on examination. The baby was active and healthy and the other areas of the scalp and the body hair was normal and no other active dermatological disorders was seen.

On the basis of the above findings a diagnosis of "transient neonatal occipital alopecia" was made. Since this is a self-limiting physiological alopecia , reassurance was advised to the mother .



Figure 1: Showing the band like patchy hair loss over the occipital region extending to the vertex

DISCUSSION

Transient neonatal occipital alopecia is a form of acute telogen effluvium occurring due to delayed anagen release, first reported by Brocq in the year 1907.¹ The hair shedding is synchronous in fetus and it becomes asynchronous only by end of the 1st year of life. The hair over the scalp is formed by 18-20 weeks usually progressing from the cephalocaudal direction region and are in anagen phase. They are subjected to transition from anagen to telogen phase at around 7-8 months of gestation when the lanugo hair is shed and is replaced by the terminal hairs and the hairs over the occipital region are last to enter telogen phase which occurs close to term or birth.^{2,4} The telogen phase lasts for ~ 3 months. Hence, most the babies have hair loss at the occipital region by around 2-3 months of infancy as shown in figure 2.⁵ This is more common in Caucasians.



Figure 2: Shows events of hair shedding

This is a physiological phenomenon as is supported by its benign and self-limiting nature and is commonly seen in full term normal gestation, women <35 years of age, normal delivery & uncomplicated pregnancies.⁵ Earlier it was thought to be a form of friction induced alopecia as it was commonly seen in the occipital region but now this theory is not accepted. The hair regrows back even if the baby continues to sleep in supine position.

It presents as a longitudinal, oval or elliptical non-cicatricial transient hair loss commonly presenting over the occipital region with the upper margins merging with the hair over the vertex in a healthy baby. The differential diagnosis of this condition is given in table 1

Table 1: Differential diagnosis of transient neonatal occipital alopecia :

Differential diagnosis	Salient features
Halo scalp ring.7,8	<ul style="list-style-type: none"> • Perinatal hair loss caused secondary to pressure induced reduced blood flow and ischemia leading to hair follicle damage eventually leading to hair loss • It can occur secondary to prolonged pressure against cervical os or instrumentation during delivery and caput succedaneum. • It can be non-cicatricial (mild and pressure for less duration) or cicatricial (severe necrosis and prolonged pressure) • Presents as a band shaped or halo ring shaped alopecia around the margins of caput succedaneum. Sometimes contusion can be noted. • It is self-limiting in mild cases and in severe cases hair loss is permanent
Pressure alopecia 9	<ul style="list-style-type: none"> • Pressure induced alopecia secondary to reduced blood supply and ischemia/schaemia • Seen in babies kept in the same posture for very long-time e.g systemic illness, paralysis, prolonged surgeries.
Alopecia areata	<ul style="list-style-type: none"> • Extremely rare in infancy • Patchy, non-scarring hair loss

It is a form of physiological alopecia & hair eventually grows back, hence reassurance is all that is need. However, baby's parents should be counselled/counselled regarding its nature so as most of them are anxious regarding it as a form of nutritional deficiency. It should also be explained that it is not a pressure alopecia secondary to friction from pillows as changing the position of sleeping and putting the baby in prone position can lead to Sudden infant death syndrome(SIDS)^{10,11}.

REFERENCES

1. Brocq L. Traite elementaire de dermatologie pratique. Vol. 1. Paris: Octave Doin; 1907. p. 358.
2. Cosarellis G, Millar SE, Chan EF. Embryology and anatomy of the hair follicle. In: Olsen EA. Disorders of hair growth. Diagnosis and treatment. 2d edition. McGrawHill Barcelona, Spain 2003 pp 1-22
3. Barth JH. Normal hair growth in children. *Pediatr Dermatol.* 1987;4:173-184.
4. Olsen EA Hair loss in childhood. In: Olsen EA. Disorders of hair growth. Diagnosis and treatment. 2d edition. McGrawHill Barcelona, Spain 2003 pp 177-238
5. Rogers M. Hair loss in the neonate. In: Eichenfield LF, Frieden IJ, Esterly NB, editors. Textbook of neonatal dermatology. 1st ed. St. Louis: Mosby; 2001. p. 494.
6. Kim MS, Na CH, Choi H, Shin BS. Prevalence and factors associated with neonatal occipital alopecia: a retrospective study. *Ann Dermatol.* 2011 Aug;23(3):288-92.
7. Tanzi EL, Homung RL, Silverberg NB (2002) Halo scalp ring: a case series and review of the literature. *Arch Pediatr Adolesc Med* 156:188-190
8. Martin JM, Jordá E, Alonso V, Villalón G, Montesinos E. Halo scalp ring in a premature newborn and review of the literature. *Pediatric dermatology.* 2009 Nov;26(6):706-8.
9. Barth JH. The hair in infancy and childhood. In: Dawber RPR editor. Diseases of the hair and scalp. 3d ed. Oxford: Blackwell Science; 1977. P 51-66.
10. Infant sleep position following new AAP guidelines. *American Academy of Pediatrics.* Gibson E, Cullen JA, Spinner S, Rankin K, Spitzer AR *Pediatrics.* 1995 Jul; 96(1 Pt 1):69-72
11. Cutrone M, Grimalt R. Transient neonatal hair loss: a common transient neonatal dermatosis. *European journal of pediatrics.* 2005 Oct 1;164(10):630-2.