

*Case report*

# Occipito-Linear and Temporo-Fronto-Parietal Alopecia as a Form of Transient Hair Loss in Infants

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**ABSTRACT**

Neonate's temporal triangular alopecia, transient neonatal hair loss (TNHL) or neonatal occipital alopecia (NOA) is observed in the occipital of infants at the second to third months after birth in a band-like shape or oval alopecia patch. We present two infants with hypotrichosis over the occipital region and fronto-temporo-parietal region in triangular form bilaterally, based on the clinical hypotrichosis distribution pattern and trichoscopic features, with the exclusion of other alopecias. The diagnosis of occipito-linear and triangular fronto-temporo-parietal marginal alopecia was made accordingly. We also discussed the two different lesions in the presented case as a combined form of neonatal occipital alopecia.

**Keywords:** Alopecia, Neonatal, Occipital, Linear, Triangular, Marginal.

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## INTRODUCTION

The clinical presentation of hair loss and scalp disorders in children often ranging from subtle to disfiguring forms, and may be congenital or acquired [1]. The problem is annoying to the parents who are worrying from the total and irreversible hair loss in their children as early management is needed. In neonates, different patterns of hair loss have been identified. Non-marginal occipital alopecia or neonatal occipital alopecia observed in the occipital area of infants after 8-12 weeks postnatally, which was described by Brocq in 1907 [2]. Its shape may be linear or oval and is relatively common with prevalence ranging from 9-12%. Epidemiological reports revealed that the occurrence of this disorder occurs mainly with Caucasian infants, and mostly related to the frictional

pressure caused by neonatal sleeping position. However, it has been postulated to the physiological hair shedding in telogen effluvium after prolonged anagen phase which began in prenatal period [3,4]. The hair development on the fetal scalp begins at 9-12 weeks of gestation and the whole scalp is covered with anagen hair by 18-20 weeks of gestation [5-7]. Although the hair roots go through the catagen and then, the telogen phases in progressive manner.

Another form of transient neonatal alopecia is marginal, often band like alopecia of the fronto-temporal region of the scalp [2,4]. It may be confused with alopecia areata which have positive trichoscopic finding as black and yellow dots, and exclamation marks [2]. Neri et al. proposed a new classification of TNHL: (1) Neonatal type is rare and appears in the first 4 weeks of life with a frontal –temporal pattern.

(2) Classic type is more common than the first and appears at 8–12 weeks of life with a predominant occipital pattern [8].

On the other hand, temporal triangular alopecia (TTA) is well circumscribed triangular shape of non – cicatricial alopecia in fronto-temporal area [9,10]. TTA rarely involves large temporo-parietal region [11]. It usually sporadic and appears after two years of age, when the vellus hair are replaced by terminal hair, it is usually unilateral but bilateral involvement may also occur [9,10]. It may occur within families as a predominant trait.

## CASE REPORT

Two infant girls (five months and three months of age) were presented with hair loss in linear occipital region extending to the temporo-parietal region bilaterally. There were also bilateral and triangular localized hair loss over fronto-temporal regions. In both infants, diminished hair has been noticed a few weeks after their birth through normal vaginal delivery without any assistant machine or acquired trauma. On examination, there were no any skin changes noticed at hypotrichosis areas. They presented with a wide base triangular alopecia patches over the fronto-parietal regions adjoining with temporo-parietal patches in marginal band extends into occipital regions bilaterally. Moreover, a fringe between the triangular a patches and frontal regions were also noticed (Figure 1 & 2).



**Figure 1:** (A) Occipital linear patch. (B) Fronto-temporo-parieto-linear marginal alopecia.



**Figure 2:** (A, B) Triangular alopecia patch bilateral extends into Frontal-temporal -parieto-occipital band configuration. (C) Non marginal patch on occiput

Physical and neurological examinations were done for the both infants, and were normal hair pull test was negative. On trichoscopy, vellus hairs were seen without any other changes like scales or any colored dots or exclamation marks, as the triangular shape of the lateral alopecia and continuous with marginal occipital bands. We reported marginal alopecia with triangular fronto-temporo-parietal alopecia. On the other hand, the band like patches was observed as occipito-linear alopecia.

## RESULTS

The alopecia patches in our patients had been noticed at a few weeks after their birth because of telogen effluvium started. We confirmed the presence of bilateral triangular patches, which extending from fronto-temporo-parietal regions into the occiput. This appearance was not typical for TTA, but it was typical with the marginal TNHL. Therefore, we thought that triangular patches regarded as a variant of the marginal form of TNHL and there are only a few cases of linear –shaped alopecia on the scalp have been reported [12,13]. Due to lack of any epidermal or dermal changing other than the alopecia, we thought that the linear lesions was compatible

with the non –marginal, and marginal occipital and linear form of TNHL.

Regarding the age of the patients and the absence of any inflammation or scales and the negativity of pull testing with the presence of thin hair on trichoscopic examination <sup>[3,8]</sup> as in the TTA vellus hairs are present were the follicular size is decreased <sup>[14]</sup>.

The diagnosis of Alopecia Areata, Trichotellomania and Tinea Capitis were excluded. Also, we do not know the histopathological findings in the follicles as skin biopsy was difficult to perform. Furthermore, the diagnosis of TNHL as in previous reports was made based on clinical and dermoscopic findings <sup>[3,8]</sup>. TNHL is a self-limiting and transient disease, and it does not require any treatment <sup>[10,11,13,14]</sup>.

## CONCLUSION

In conclusion, fronto-temporal—parietal and the triangular variant marginal alopecia is regarded as a neonatal occipital NOA or TNHL. It is a non-scarring alopecia and parents should be informed that there is no need for any medical intervention as it improves spontaneously.

## Disclosure

No conflict of interest was declared.

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