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Aseptic Alopecic Nodule of the Scalp (NAAS) Simulating Hoffmann's Disease (HD), Efficacy of Intra-Lesional Corticotherapy: 03 Observations at the Bamako Dermatology Hospital (HDB)

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Abstract **Case Report**

The alopecic aseptic nodule of the scalp (NAAS) is a recently described entity known as a "pseudocyst of the scalp". It can be confused with dissecting folliculitis of the scalp (Hoffmann's disease) by certain clinical signs. We report three cases of NAAS mimicking MH with favourable evolution under doxycycline associated with intra-lesional corticotherapy. ***Case 1*:** A 36-year-old man presented with painful nodules of the scalp. Examination revealed two fluctuating subcutaneous nodules measuring 4 and 5 cm, both painful. The skin opposite the nodules was alopecic and not scarred. ***Case 2*:** A 28-year-old man presented with a scalp nodule that had been present for 3 months. Clinical examination revealed a fluctuating, painful subcutaneous nodule measuring 7cm, alopecic and non-scarring, with surrounding small patches of alopecia. In addition, inflammatory acne lesions were noted on the face. ***Case 3*:** A 33-year-old obese male smoker presented with a scalp nodule. Examination revealed a painful subcutaneous nodule measuring 3 cm, with smooth alopecic skin. ***Discussion:*** The pathophysiology of NAAS remains poorly understood, and a link with the spectrum of follicular occlusion pathologies has been suggested. Inflammatory acne was observed in two of our patients. The biopsy was non-specific; the pus came back sterile in all cases; after aspiration, the patients benefited from intra-lesional corticosteroid therapy associated with doxycycline 100mg/dr with a good evolution. ***Conclusion*:** Aseptic alopecic nodules of the scalp are clinically similar to folliculitis dissecans of the scalp. Certain clinical signs can help the practitioner to make the correct diagnosis in order to avoid aggressive treatment.

Keywords: NAAS, Hoffmann's disease, corticotherapy, doxycycline, HDB, Mali.

INTRODUCTION

The alopecic and aseptic nodule of the scalp (NAAS) is a recently described entity, first described in 1992 in Japan by Iwata et al under the name of "pseudocyst of the scalp" [1].

The acronym "NAAS" was proposed in 2009 by Abdennader *et al*., [2]. In 2011, these same authors published a prospective study [3] of 15 patients, detailing the main epidemiological, clinical, histological and therapeutic features of this condition.

This condition is very often confused with folliculitis dissecans of the scalp or Hoffmann's disease, due to the lack of recognition of pseudocysts of the scalp. We report three observations of pseudocysts of the scalp simulating Hoffmann's disease with a favourable evolution under doxycycline associated with intralesional corticotherapy.

OBSERVATIONS

Case 1

A 36-year-old working-class man with a history of recurrent acne consulted a dermatologist for painful nodules of the scalp that had been developing for 05 years, marked by flare-ups and remissions with nonspecific treatment. Clinical examination revealed two subcutaneous nodules with a "domed" appearance, fluctuating, 4 and 5 cm in diameter on their long axis, sensitive to palpation, the skin opposite was alopecic and smooth (non-scarring), and the surrounding scalp

was normal. There was also acne with nodulocystic lesions on the face. Bacteriological examination after removal of pus from the nodules was sterile. The skin biopsy was non-specific. After aspiration of the pus, the patient received intra-lesional infiltration of triamcinolone acetate (one session) combined with oral doxycycline 100mg/dr for 03 months with good progression.

Case 2

A 28-year-old male student with a history of recurrent acne since the age of 17 consulted for a scalp nodule that had been developing for 3 months. Clinical examination revealed a fluctuating subcutaneous nodule 7 cm in diameter along its long axis, tender to palpation; the skin opposite was alopecic and non-scarring, with small patches of alopecia all around; the rest of the scalp was unremarkable. Retention and inflammatory acne lesions were also noted on the face. Bacteriological examination after sampling the pus came back sterile. Management consisted of evacuation of the pus, intra-lesional infiltration of triamcinolone acetate (one session) and oral doxycycline 100mg/dr for 02 months with a favourable outcome.

Case 3

A 33-year-old, moderately obese, blue-collar male active smoker consulted a dermatologist for a scalp nodule that had been present for 01 month. Clinical examination revealed a painful subcutaneous nodule 3 cm in diameter, with smooth alopecic skin. Bacteriological examination after sampling the fluid returned sterile. After evacuation of the fluid, intra-lesional infiltration of triamcinolone acetate (one session) combined with doxycycline 100mg/dr per os for 01 month stabilised the lesions for good.

Image 1: 28-year-old male student with a history of recurrent acne since the age of 17

Image 2: 28-year-old male student with a history of recurrent acne since the age of 17

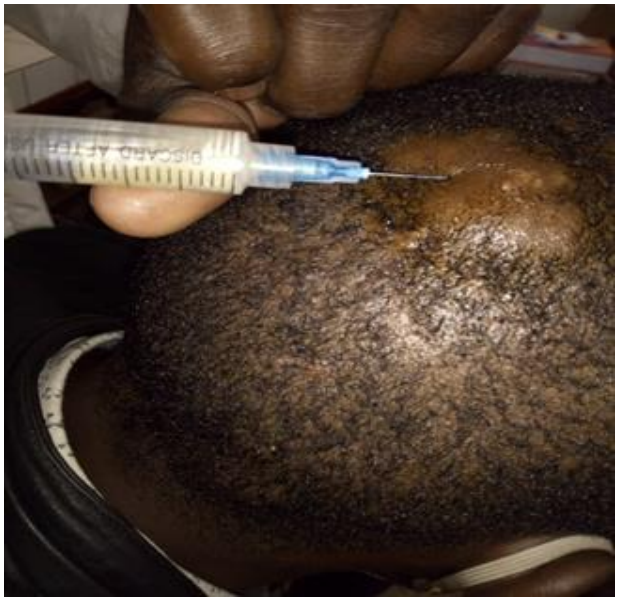

Image 3: Aspiration of the liquid for checking

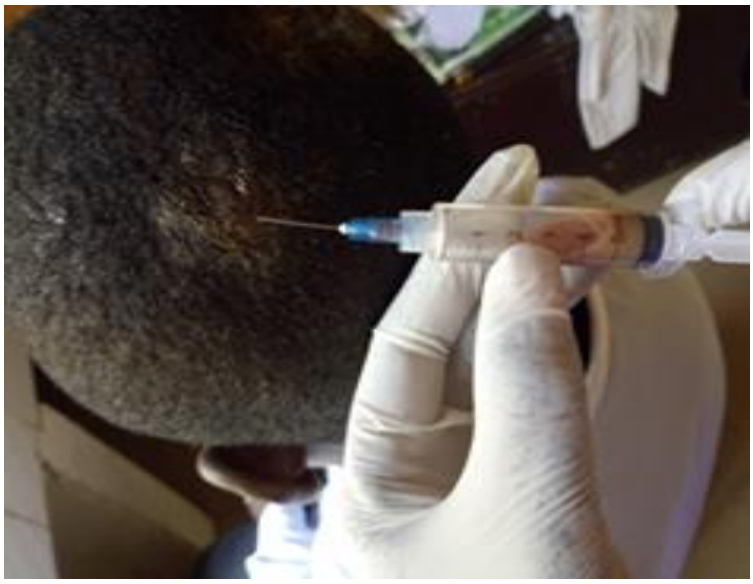

Image 4: Aspiration of the liquid for checking

Image 5: two Aseptic alopecic nodules of the scalp (NAAS)

Comment

The alopecic and aseptic nodule of the scalp (NAAS) is a new entity described in 1992 by Japanese teams [1]. It is a relatively rare condition, the exact prevalence is unknown. In a 22-month study, Abdennader et al observed 15 cases out of 20,000 patients consulting for hair problems, i.e. 33 cases in 15 years [3], while other authors suggest that it may probably be under-diagnosed in favour of Hoffmann's disease. NAAS occurs most frequently in young adults and is predominantly male [3, 4].

The clinical appearance of NAAS is very characteristic, with the presence of 1 or more non-confluent nodule(s) on non-erythematous, asymptomatic skin, although an inflammatory phase may occur. Non-scarring alopecia is present from the start of the lesions and remains localised to the tumour area, with the surrounding scalp normal. Puncture results in the discharge of a citrinous or purulent, or even haemorrhagic, fluid, which is generally sterile [5] the course is chronic and slow, as in our three patients.

The diagnosis of NAAS is probably underestimated at the expense of dissecting folliculitis of the scalp (Hoffmann's disease). These nodules are usually large (25 to 50 mm) and fewer in number, with a higher location on the vertex. The lesions in Hoffmann's disease are smaller in number (greater than 10), more inflammatory, interconnected and the alopecia is cicatricial.

The pathophysiology of NAAS remains poorly understood; a link with the spectrum of follicular occlusion pathologies has been suggested, but remains to be clarified [6]. In two of our patients, we observed inflammatory acne since adolescence, evolving through flare-ups and remissions under treatment or spontaneously. We also noted that the onset of NAAS was accompanied at the same time by flare-ups of inflammatory acne. One of our patients was moderately obese and an active smoker. None of our patients had lesions of hidradenitis suppurativa or pilonidal cysts.

Hoffmann's folliculitis nodules are very often more inflammatory, showing a purulent collection from which puncture yields sterile pus. Two of our cases also had aseptic pus, while in the third the fluid was citrine.

The histological appearance of NAAS is not constant; it is often described as a pseudocyst associated with a deep, nonsuppurative inflammatory granuloma [5] or an inflammatory granuloma with no pseudocyst structure [3], unlike the granulomas seen in Hoffmann's disease where the appearance is highly suppurative, rich in neutrophils and fibrosing, leading to scarring alopecia. In the absence of effective treatment, such as oral isotretinoin, permanent scarring alopecia occurs [7]. On the other hand, the prognosis is good in cases of NAAS, and the alopecia is reversible either spontaneously or after treatment, particularly with doxycycline and/or corticosteroid infiltration. We noted a recurrence two years later in case 1, and the other two patients have had no flare-ups to date, apart from acne lesions in case 1 and case 2.

CONCLUSION

Many aseptic and alopecic nodules of the scalp are mistaken for Hoffmann's disease because of the clinical similarities between the two conditions. However, certain clinical signs can be just as discriminating, helping clinicians to make the right diagnosis and offer appropriate, non-aggressive management.

REFERENCES

1. Iwata, T., Hashimoto, T., & Niimura, M. (1992). A Pseudocyst avec tissu de granulation inflammatoire sur le cuir chevelu - pseudokyste ou cuir chevelu. *Jpn J Clin Dermatol*, 46, 9-16.
2. Abdennader, S., & Reygagne, P. (2008). Alopecic and aseptic nodules of the scalp. *Dermatology*, *218*(1), 86.
3. Abdennader, S., Vignon-Pennamen, M. D., Hatchuel, J., & Reygagne, P. (2011). Alopecic and aseptic nodules of the scalp (pseudocyst of the scalp): a prospective clinicopathological study of 15 cases. *Dermatology*, *222*(1), 31-35.
4. Bourezane, Y., Bourezane, H. (2014). Deux nouveaux signes trichoscopiques dansles nodules alopéciques et aseptiques ducuir chevelu: le « signe de la crêpeorientale » et les structurescomédoniennes. Cabinet de dermatologie, « Le Vigny », 11, rue Alfred-de-Vigny, 25000 Besanc ¸on, France.
5. Liegeon, A. L., Schoeffler, A., Lerondeau, B., Muller, P., & Truchetet, F. **(**2014). Pseudo-kystes du cuir chevelu : deux cas. Service de dermatologie, hôpital Beauregard, CHR de Metz-Thionville, 21, rue des Frères, 57100 Thionville, France.
6. Lee, S. S., Kim, S. Y., Im, M., Lee, Y., Seo, Y. J., & Lee, J. H. (2011). Pseudocyst of the scalp. *Ann Dermatol*, 23, 267-269.
7. Ross, E. K., Tan, E., & Shapiro, J. (2005). Update on primary cicatricial alopecias. *Journal of the American Academy of Dermatology*, *53*(1), 1-37.