

# A Case of Giant Folliculitis Fibrosis Nuchae Complicated by a Botriomycoma Successfully Treated by Surgery in Benin

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## Abstract

**Introduction:** Folliculitis fibrosis nuchae (FFN), or acne keloidalis nuchae, is a chronic inflammatory condition of the pilosebaceous follicles in the occipital region and the neck. It occurs mainly in men of African descent, with highly pigmented skin and frizzy hair, after puberty. Botryomycoma, or pyogenic granuloma, is a benign vascular tumour of the superficial dermis. It can be found on the entire skin or mucous membrane. The occurrence of botriomycoma on a giant FFN is rarely described in the literature. We are reporting a case in Benin.

**Observation:** This was a 48-year-old man, seen in consultation for an asymptomatic fibrous tumour blocking his neck that had been developing for several years and which was secondarily complicated by another burgeoning tumour lesion. All the lesions were an aesthetic problem for him. The diagnosis of botriomycoma complicating FFN has been made. A complete surgical excision with an electric scalpel was performed, followed by controlled healing. The evolution after three years of follow-up was favourable, marked by an almost invisible scar and an absence of recurrence of lesion.

**Conclusion:** The interest of this clinical case lies on the one hand in the rarity of the association of the giant FFN and the botriomycoma; and on the other hand in the therapeutic success.

**Keywords:** Folliculitis fibrosis nuchae; Giant; Botryomycoma; Surgery

## INTRODUCTION

Folliculitis fibrosis nuchae (FFN), commonly known as acne keloidalis nuchae (AKN), is a chronic inflammatory condition of the pilosebaceous follicles in the occipital and neck regions. It is a chronic inflammatory process leading to the formation of keloidal papules or plaques. The condition occurs mainly in males after puberty, although it has been reported in a few females [1,2]. It is particularly common in people of African descent, with highly

pigmented skin and much more often with frizzy hair.

Botryomycoma, or pyogenic granuloma, is a benign vascular tumour of the superficial dermis, but hypodermic forms have also been reported. It can be found on the entire skin or mucous membrane [3]. The preferred sites are acral regions such as fingers and toes where they very often accompany an ingrown nail.

The occurrence of botriomycoma on a giant FFN is rarely described in the literature. We are reporting a case in Benin.

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### OBSERVATION

A 48-year-old man, a journalist by training, without any particular medical or surgical history, was seen in consultation for an asymptomatic tumour mass blocking his neck, which had been evolving for several years. Two months before the consultation, the patient noticed a new tumour lesion, burgeoning and bleeding at the slightest touch, which was grafted onto an edge of the first tumour. All the lesions were an aesthetic problem for him. The dermatological examination found a giant, transverse fibrous, normo-pigmented tumour mass covering almost the entire occipital region. On the periphery of the tumour papulopustular lesions were observed. At the leftlateral end, the large tumour surmounted by a second hemorrhagic burgeoning tumor of about 2 cm of major axis (**Figure 1**).



**Figure 1.** Association of a giant FFN and a botriomycoma before surgical treatment

The diagnosis of botriomycoma complicating giant folliculitis fibrosis nuchae was retained. A complete surgical excision with an electric scalpel removing the two tumours with the entire pilosebaceous follicle package affected was performed, followed by controlled healing (**Figure 2**).



**Figure 2.** Controlled healing, result two weeks after surgical treatment

After two months a normal scar was obtained without FFN lesions (**Figure 3**). Three years later, the scar is almost invisible and there is still no recurrence of lesions.



**Figure 3.** Normal scar, result two months after surgical treatment

### DISCUSSION

The FFN evolves in two successive phases, often intertwined: an inflammatory phase and a scarring phase. First, the AKN presents as a firm, dome-shaped, inflammatory papules and pustules over the nape of the neck. Over time, fibrosis ensues with coalescence of firm papules into keloidal scarring plaques [4]. Scarring is typically present the time patients present for medical evaluation; this was the case with our patient.

Botriomycoma is most often caused by a skin breach. Other traumas, even minor ones or chronic irritation can induce its appearance. But its pathogenesis remains unexplained[3]. A common interpretation is that the perifollicular inflammation is based on a reaction to a foreign body around a hair shaft that has perforated the follicular sheath. This explanation has the advantage of being consistent with the wide prevalence of the disease on frizzy hair[5]. Some hormonal changes, pregnancy and certain medications can also induce the development of a botriomycoma[3,6].

The FFN itself being triggered by the microtrauma induced by the repeated passage of the hair clipper or razorblade. This may explain this association of the two tumors in our patient. The particularity of the latter lies in the giant aspect of this FFN because most botriomycomas on FFN occur on papulopustular lesions.

The treatment of choice for botriomycoma is surgical excision under local anesthesia, supplemented, if

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necessary, by as complete electrocoagulation as possible to avoid recurrence[3].

The treatment of FFT, on the other hand, is difficult and particularly frustrating. In the absence of solid data from large controlled trials, the consensus of field specialists is useful. The essential measure is to stop shaving, preferably replaced by a scissor cut that allows enough hair length to overflow to avoid any hair incarnation[5]. Epilatory lasers have also been proposed in the literature[7,8]. The treatment of the acute pustular component inflammatoire uses oral cyclins and local benzoyl peroxide. The fibrosante or keloid component benefits from topical clobetasol and, above all, from intralesional injections of delayed corticosteroids[5]. In evolved forms, such as in our patient, surgical excision can be attempted, followed by different modes of covering, including controlled healing. The major fear is the development (or recurrence) of authentic keloids[5,9]. Given the giant, chronic and highly fibrotic nature of our patient's tumor on the one hand and the association with a botriomycoma on the other hand, we preferred surgical excision associated with electrocoagulation; while leaving the post-operative wound in controlled healing. This allowed us to have a good scarring result. This same method has been successfully used by Marcia and al [10]. FFN has a negative impact on patients' quality of life due to its non-aesthetic nature [6]. This impact was not well supported by our patient, a journalist, who had difficulties presenting himself on television sets. But after treatment, he was proud to return to the television sets to host his favourite shows.

### CONCLUSION

The association of a giant FFN with a botriomycoma is not described in the literature to our knowledge. This is the first case described in Benin and successfully treated by surgery with electrocoagulation. The interest of this clinical case lies on the one hand in the rarity of the combination of giant FFN and botriomycoma; and on the other hand in the therapeutic success. Preventive measures are recommended to

this patient in order to avoid possible recurrences; this is essentially the stopping of shaving.

### REFERENCES

- [1] Salami T, Omeife H, Samuel S. Prevalence of acne keloidalis nuchae in Nigerians. *Int J Dermatol.* 2007;46(5):482-4.
- [2] Ogunbiyi A, George A. Acne keloidalis in females: Case report and review of literature. *J Natl Med Assoc.* 2005;97(5):736-8.
- [3] Wauters O, Sabatiello M, Nikkels-Tassoudji N, Choffray A, Richert B, Piérard GE, et al. Le botryomycome. *Ann Dermatol Venereol.* 2010;137(3):238-42.
- [4] Daifallah M AA, Talel B. Acne keloidalis nuchae. *StatPearls [Internet].* 2019; <https://www.ncbi.nlm.nih.gov/books/NBK459135/>
- [5] Petit A. Folliculites chéloïdiennes de la nuque. *Images en Dermatologie.* 2015;8(1):32-6.
- [6] Adégbidi H, Atadokpèdè F, Akpadjan F, Koudoukpo C, Dégboué-Sounhin B, Azon-Kouanou A et al. Botriomycomes à Cotonou. *Le Bénin Médical.* 2011; 47:7-10
- [7] Naouria M. Acné chéloïdienne de la nuque traitée par laser Alexandrite long pulse. *Ann Dermatol Venereol.* 2012.139(12):B227. <http://dx.doi.org/10.1016/j.annder.2012.10.396>
- [8] Shah GK. Efficacy of diode laser for treating acne keloidalis nuchae. *Indian J Dermatol Venereol Leprol.* 2005;71(1):31-4.
- [9] Kouame K, Gbery I, Kanga JM, Kassi K, Yoboue P. L'acné chéloïdienne de la nuque: aspects épidémiologiques, cliniques et thérapeutiques en Côte d'Ivoire. *Médecine d'Afrique Noire.* 2009;56(4):197-202
- [10] Glenn MJ, Bennett RG, Kelly AP. Acne keloidalis nuchae: Treatment with excision and second-intention healing. *J Am Acad Dermatol.* 1995;33(2 PART 1):243-6.

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