REFRACTORY FOLLICULITIS DECALVANS TREATED WITH BIOLOGICS: CASE SERIES IN 4 SITUATIONS

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Introduction

Folliculitis decalvans (FD) is an inflammatory scarring alopecia with no approved effective treatments. Recently, biologic treatments have been used off-label as an alternative treatment in refractory FD. We report the results of a case series of 3 patients with refractory FD who received biosimiliar adalimumab and/or ixekizumab after failure to conventional therapies.

Methods and Results

All the patients were male with a median age of 35 years (range 26-42). All had a previous history of more than 3 years of evolution of FD. They had received more than 4 different treatment regimens. The number of alopecic patches ranged from 1 to 5 and they were located mainly on the vertex. A skin swab from the pustules revealed the presence of *S. aureus* or *S. lugdunensis* in the patients with an acute form of FD and a sterile swab in the patient with the chronic lichenoid FD. The diagnosis of FD was made clinically and confirmed with biopsy. Severity was determined using the maximum diameter of the largest alopecic patch and the presence of the following trichoscopic features (pustules, yellow crusts, perifollicular erythema or tubular scaling) corresponding to be moderate in 2 patients and severe in one patient. Before starting with the approved off-label use of the biological therapy, all the patients were screened for HIV, hepatitis B and C, syphilis, VVZ and TBC and a complete blood test including liver and renal function and a blood count. In the cases of biosimilar adalimumab, it was prescribed as subcutaneous injections of 160mg at week 0, 80 mg at week 2 and 40mg every 2 weeks and in the case of ixekizumab it was prescribed as subcutaneous injections of 160mg at week 0, 80mg at weeks 2,4,6,8,10,12 and 80mg every 4 weeks from the 16 week. Quality of life of the patients was measured through Dermatology Life Quality Index (DLQI) before starting with the treatment and at week 24. Adverse events were also recorded (Table 1).

One of our patients required two different biological treatments. He experienced an initial improvement 3 months after starting with biosimilar adalimumab but then a worse relapse required discontinuation with oral and topical corticosteroids in order to improve the onset of severe erythema and increasing pustules and yellow crusts in the whole scalp. Once the disease was stabilized, he started with ixekizumab and again a new worsening of the disease occurred with during the treatment with an increase in the number of pustules, crusts and the size of the alopecic patch at week 16 (Figures 1 and 2). We considered these as paradoxical FD reactions. The patient with the chronic and lichenoid FD experienced a mild improvement with the stability of the extension of the alopecic patches and the reduction in the number of pustules and yellow crusts. However, perifollicular hyperkeratosis remained stable. Clinical improvement was associated with a significant decrease in DLQI score and vice versa.

Table 1: Characteristics of the patients with refractory FD treated with biologics

	GENDER/ AGE	DISEASE DURATION (YEARS)	PREVIOUS TREATMENTS	NUMBER OF ALOPECIC PATCHES	LOCATION	SEVERITY	SKIN SWAB	FD FORM	TREATMENT	TIME TO IMPROVEMENT	RESPONSE TO TREATMENT	TREATMENT DURATION	DLQI $_{BASAL}$	DLQI $_{week\ 24}$	ADVERSE EVENTS
PATIENT 1	M / 26	9	Topical antiseptics Topical Clobetasol Triamcinolone i.l. Doxycycline Clindamicyne + Rifampicine Isotretinoin Oral dapsone	1	Entire scalp	Severe	S. aureus	Acute	Biosimilar adalimumab	3 months	Severe worsening	6 months-discontinued due to worsening	4	9	Candidiasic intertrigo
									Ixekizumab	–	Severe worsening	12 weeks-discontinued due to worsening	9	–	—
PATIENT 2	M / 42	12	Topical antiseptics Topical Clobetasol Triamcinolone i.l. Doxycycline Clindamicyne + Rifampicine Isotretinoin Acitretin Phototherapy Hydroxychloroquine Ciclosporin	>5	Both parietals, vertex	Moderate	Sterile	Chronic and lichenoid	Biosimilar adalimumab	1 month	Mild improvement	13 months-ongoing	10	6	H S V primoinfection and pytiriasis versicolor
PATIENT 3	M / 37	3	Topical antiseptics Topical Clobetasol Triamcinolone i.l. Topical pimecrolimus Clindamicyne + Rifampicine Isotretinoin Acitretin Oral dapsone Azithromycin	2	Vertex	Moderate	S. lugdunensis	Acute	Biosimilar adalimumab	4 months	Great improvement	6 months-ongoing	5	1	Elevated gamma-glutamyl transpeptidase

** Severity was determined by the maximum diameter of the largest alopecic patch and the presence of the pustules and yellow crusts.*

*** Treatment effectiveness was assessed as: severe worsening; moderate worsening; mild worsening; no change; mild improvement; moderate improvement; great improvement. The clinical signs evaluated were: erythema, pustules and crusts and the size stability of the alopecic patch.*

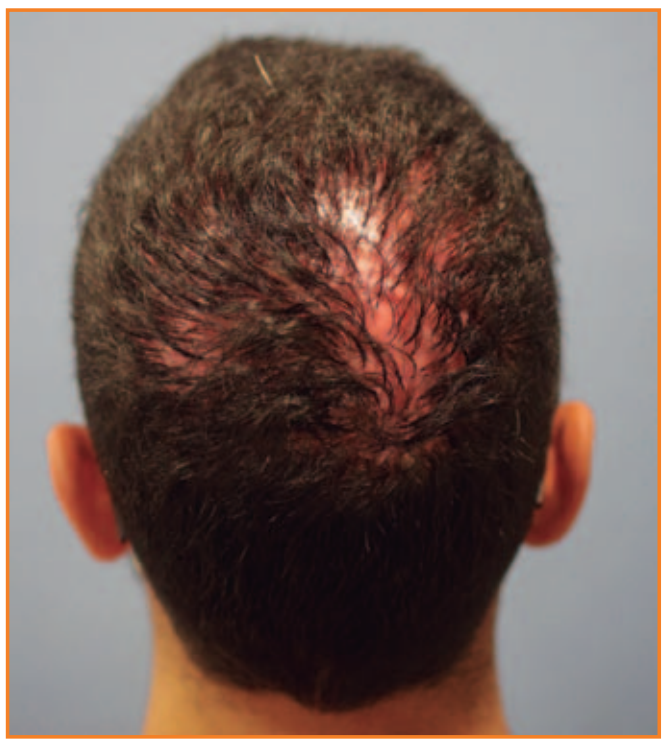

Figure 1: Patient 1 before starting treatment with biologics (biosimilar adalimumab and ixekizumab)

Figure 2: Patient 1 after 10 weeks of starting with ixekizumab (important increase in the alopecic patch, erythema, follicular pustules and crusts)

Discussion

We compared our results with the largest series of refractory FD treated with adalimumab[1]. They used higher doses of adalimumab with 80mg every 2 weeks and reported a 100% of effectiveness with 2 patients discontinuing due to insufficient improvement. No side effects except for mild gastro-intestinal symptoms were reported in 2 patients. There are also another case reports of FD treated with anti-TNF (adalimumab and certolizumab pegol)[2,3,4,5] and with anti- IL-17 (secukinumab)[6].

We report a case series of refractory FD treated with biosimilar adalimumab and/or ixekizumab, the first report of the latter used to treat FD. Although biologics represent a promising alternative for FD, short- term and long-term adverse effects should be taken into account and larger series are needed to assess the effectiveness. Paradoxical reactions, which have not been reported in FD, should also be closely observed to prevent further worsening.

References

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