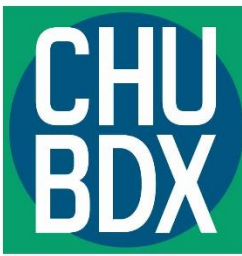


Mogamulizumab- induced granulomatous eruption of the scalp: a distinct entity associated with clinical response?

Pham-Ledard A^{1,2}, Pacaud A ¹, Criquet E ³, Durlach A ⁴, Menguy S ^{2,5}, Beylot-Barry M ^{1,2}, Grange F^{3,6}

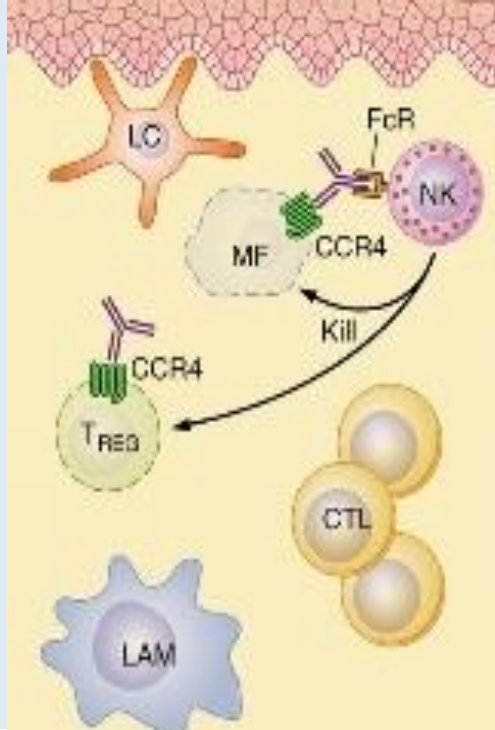
¹ Dermatology Department, Bordeaux University Hospital, France
²INSERM U1053, University of Bordeaux, Team 3 oncogenesis of cutaneous lymphomas, France
³ Oncodermatological unit, Reims University Hospital, France
⁴ Anatomopathological unit, Reims University Hospital, France
⁵ Pathology department, Bordeaux University Hospital, France
⁶ Department of Dermatology, Valence Hospital, France



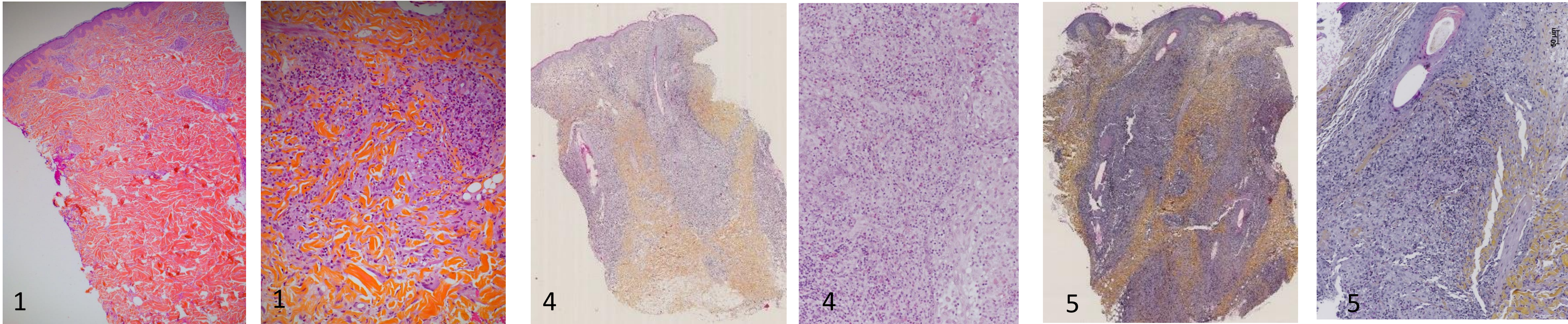
Mogamulizumab : anti-CC chemokine receptor 4 (CCR4) antibody Treatment of patients with mycosis fungoides (MF) and Sézary syndrome (SS)

→ CCR4+ cells depletion (T-cell lymphomas cells and T-reg)

Among 25 patients treated with MOGA → 6 developed squamous, folliculotropic and infiltrated plaques on the scalp and alopecia



Patients	Age sex	TNM Stage	Prior therapies	Side effect type	Histological description	Time to onset (months)	Best global response	TCR rearrangement In skin biopsy	PFS (months)	Follow-up time (months)	MOGA discontinuation
1	66 F	T4N3M0B2	MTX	Scarring alopecic plaque, pre-auricular infiltrated bilateral plaque	Lymphocytes infiltrate Granuloma	5	CR	Polyclonal	32	32	No
2	63 F	T4N0M0B1	IFN, bexarotene ECP	Scalp erythema, pre-auricular bilateral plaque and patches erythematous	Lymphocytes and eosinophils infiltrate, Granuloma	5	CR	Polyclonal	32	32	No
3	57 M	T4N3M0B2	chemo	Infiltrated plaques and nodules of the retro-auricular area and the scalp	Lymphocytes and granulomatous infiltrate	46	CR	ND	48	48	No
4	67 F	T4N0M0B1	MTX, bexarotene, ECP vorinostat	Scarring alopecic plaque	Lymphocytes and eosinophils infiltrate Granuloma	10	CR	Polyclonal	72	72	Yes (End of clinical trial and CR)
5	71 F	T2N0M0B2	MTX bexarotene ECP	Scarring alopecic plaque	Lymphocytes and eosinophils infiltrate Granuloma	6	CR	Polyclonal	19	39	Yes (Scarring alopecic progression and CR)
6	61 F	T4N0M0B1	MTX, bexarotene	Erythematous and infiltrated plaques and alopecia on the scalp, erythematous plaques on the back	Lymphocytes infiltrate, folliculotropic, granulomas	9	CR	ND	10	10	No



« MOGA associated rash » ^{1, 2, 3} (MAR)

- Median time to onset : 4 months (up to > 3 years)
- Heterogenous clinical presentation but may mimic MF, head and neck location
- Histology: spongiotic or psoriasiform, interface dermatitis, or granulomatous

Here we report 6 cases of « folliculotropic-MF-like scalp plaques with alopecia » ¹

- Difficult-to-treat (topical steroids, intralesional steroids, doxycyclin..)
- All patients reached CR→ may be associated with good response to MOGA (shift to Th1 milieu + Treg depletion→ granulomas?)
- New eruption during MOGA treatment→ Suspect MAR and biopsy (may mimic MF)

1. Hirotsu KE, et al. Clinical Characterization of Mogamulizumab-Associated Rash During Treatment of Mycosis Fungoides or Sézary Syndrome. JAMA Dermatol. 2021
2. Wang JY, et al. Histopathologic Characterization of Mogamulizumab-associated Rash. Am J Surg Pathol. 2020
3. Chen L, et al . Mogamulizumab-Associated Cutaneous Granulomatous Drug Eruption Mimicking Mycosis Fungoides but Possibly Indicating Durable Clinical Response. JAMA Dermatol. 2019