

P4. How COVID-19 can bury your head in the sand: a case of complex cutaneous leishmaniasis in the face

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INTRODUCTION

A 35-year-old healthy Belgian Caucasian woman presented to her dermatologist with a painless, isolated non-healing ulceration on the right infra-orbital area that changed over two months from an erythematous papule to an ulceration of 1.5cm (Fig.2). The patient had no systemic complaints. Previous treatment with topical steroids and oral antibiotics were unsuccessful. She worked as a nurse in a retirement home and was herself convinced that friction of her protective mask at work was the cause. The patient's travel history included a beach holiday to the Costa Blanca (Spain), 6 months prior to first symptom.

RESULTS

Ulcer swab cultures: negative for any bacterial/fungal/mycobacterial infection

Biopsy: non-necrotizing granulomatous dermatitis with leishmania amastigotes in many histiocytes (Fig. 1)

PCR: positive for *Leishmania infantum*

Abdominal ultrasound & laboratory results: normal (no visceral involvement)

Diagnosis: CUTANEOUS LEISHMANIASIS (CL) INFANTUM

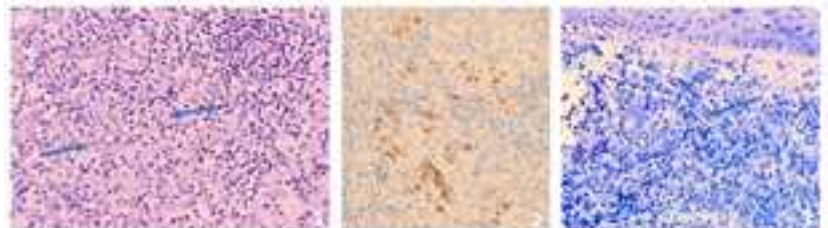


Fig.1: Histopathological clues for CL diagnosis. (1) H&E staining shows *L. species* presenting as small blue dots (arrow). To confirm this finding, a Cd1a staining ((2), *L. species* presenting as orange dots) and a Giemsa staining ((3), *L. species* presenting as small blue speckled dots (arrow)) was performed.

TREATMENT



- * Intralesional (IL) meglumine antimoniate (Glucantime®) 1.5g/5mL
- * Five sessions of injecting between 0.3 and 0.6 cc at a seven-to-ten days interval
- * Progressive healing of the ulcer over time: minimal scarring
- * Local treatment in between injections: sodium fucidate ointment (Fucidin®) and a hydroactive-colloid gel (Flamigel®)
- * Side effects: localized oedema around the injection site, lasting three to four days, specifically after the 1st and 4th injection.

Fig. 2. Clinical evolution before (a), during (b–g) and after (h) IL injections of meglumine antimoniate. (a) before treatment – (b) local oedema around injection site, days after first IL injection (0.5 cc) (c) result after first IL injection (0.5 cc) (d) result after second IL injection (0.3 cc) (e) result after third IL injection (0.45 cc) (f) result after fourth IL injection (0.6 cc) (g) result 2 weeks after fifth injection (0.4 cc) (h) result nine months after fifth injection.

DISCUSSION

As far as we know from literature, this is the first case of complex facial CL successfully treated with IL meglumine antimoniate in monotherapy in Belgium.

Although spontaneous resolution can be observed in CL, skin lesions can be very disfiguring. There are multiple treatment options described, depending on type of *Leishmania* species and localization/number/size of lesions, as well as on the clinician's experience. According to European and American guidelines, the combination of intralesional antimonials plus cryotherapy is the first-line treatment option for uncomplicated Old World CL. Nevertheless, since this case of CL presented as an infra-orbital (lower eyelid crease) ulcer, this is classified under complex CL, where according to the guidelines, cryotherapy should be avoided and systemic treatment should be considered. Parental route is used for amphotericin B deoxycholate, lipid formulations of amphotericin B, pentavalent antimonial compounds and pentamidine; oral options include miltefosine and the "azole" antifungal compounds. Nevertheless, based on the clinician's experience, IL antimonials were preferred, knowing it has fewer side effects (and reduced costs) compared to systemic administration of anti-leishmania drugs. Alternative local therapies, such as cryotherapy or surgery, have a significant higher risk of unsightly scarring or were excluded based on the difficult location of the lesion.

CONCLUSION

This case underlines the minimal scarring with and effectiveness and safety of IL meglumine antimoniate in monotherapy in CL infantum, particularly in complex facial lesions where guidelines theoretically advocate a systemic approach. Furthermore it emphasizes the multidisciplinary approach of CL where dermatologists not only take part in diagnosing the disease but also work side by side with infectologists using their skills in (facial) IL injections to treat these patients.