Dermatology Practical & Conceptual

Cyclophosphamide in a Recalcitrant Case of Nekam's Disease

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Introduction

Keratosis Lichenoides Chronica, also called as Nekam's disease, is a rare acquired muco-cutaneous inflammatory disorder affecting adults and rarely children. It is characterized clinically by asymptomatic violaceous papules and plaques arranged in linear and reticular fashion and histologically by interface dermatitis [1]. It may be associated with features like rosacea, seborrheic dermatitis like rash (75%), recurrent oral aphthous ulcer (50%), palmoplantar keratoderma (40%) and nail dystrophy (30%) [2]. We report a rare condition in its classical form and a sustained remission with cyclophosphamide.

Case Presentation

A 25-year-old female, presented with 5-years history of mild itchy lesions which had started during pregnancy, and had gradually progressed. She also complained of burning sensation on eating. Cutaneous examination revealed multiple, linear, hyperkeratotic violaceous plaques over flexor aspect of upper limbs, dorsum of hands, trunk, abdomen, buttocks, and lower limbs. (Figure 1A) She also had rosacea-like lesions on the face (Figure 1B) and multiple aphthous ulcers over bilateral buccal mucosa (Figure 1C), the combination of features suggesting Nekam's disease.

Histopathology revealed parakeratotic hyperkeratosis covering acanthotic and focally flattened epidermis and band-like lymphocytic infiltrate admixed with plasma cells abutting the basal layer which showed vacuolization confirming the clinical diagnosis.

Her routine blood investigations were normal. The patient had received methotrexate (7.5-15 mg for 3 months) and acitretin (25 mg once daily for 1 month) previously with no clinical improvement. She was subsequently administered pulse intravenous methylprednisolone 500 mg for 3 days

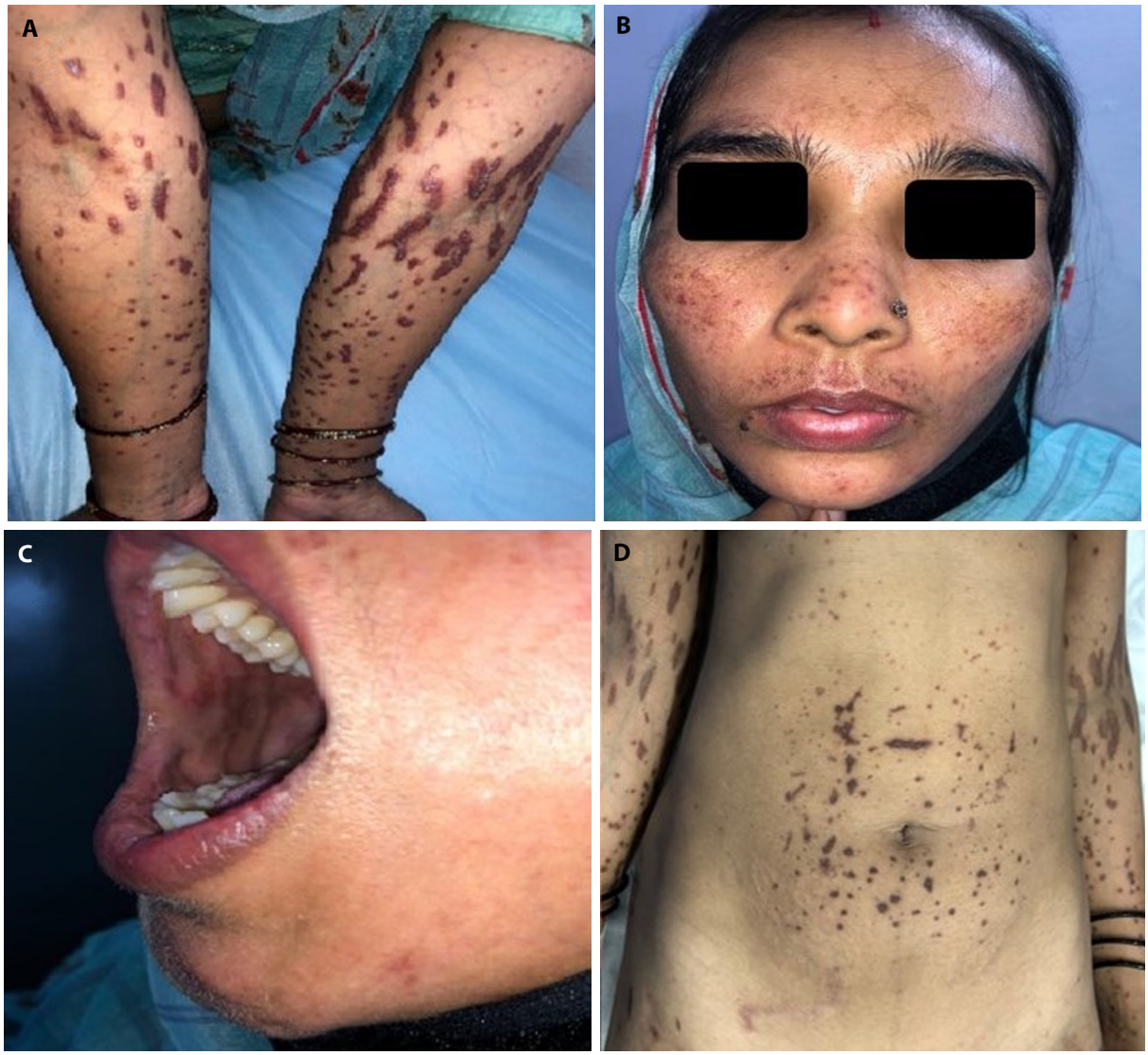

Figure 1. (A) Erythematous to violaceous papules and plaques in reticular fashion over both upper limbs. (B) Rosacea like lesions on face. (C) Aphthous ulcer over right buccal mucosa. (D) Resolution of cutaneous lesions with post inflammatory hyperpigmentation after five months of cyclophosphamide.

which was deferred later due to ECG changes. She was then treated with cyclophosphamide 100mg once daily (OD) which was tapered to 50 mg OD after a month, followed by subsequent tapering to 50 mg alternate days. Progressive improvement occurred during this with resolution of mucosal lesions and all cutaneous lesions with post inflammatory hyperpigmentation (Figure 1D) at the end of five months, at which point cyclophosphamide was stopped. The patient's blood counts and urine analysis were closely monitored throughout the course of treatment and demonstrated no abnormalities. Four months later she had a mild recurrence which responded to cyclophosphamide 50mg given 3 days a week for a month. The patient has since been off systemic treatment with occasional minor localized recurrences manageable with topical agents alone.

Conclusions

Nekam's disease and other lichenoid disorders are characterized by an interface inflammatory cell infiltrate largely consisting of lymphocytes and plasma cells. At a molecular level CD4+ Th1 cells and CD8+ T lymphocytes, and Natural killer cells mediate the damage to basal cells in this group of disorders [3]. Phototherapy, retinoids, methotrexate, dapsone, steroids, antimalarials, ciclosporin, efalizumab, have all been tried with variable efficacy in Nekam's disease [4]. Cyclophosphamide is a potent immunosuppressive agent which has demonstrated efficacy in treating resistant dermatoses including recalcitrant lichen planus and cutaneous lupus, dermatomyositis, PLEVA, refractory graft versus host disease, etc; all characterized by an interface infiltrate rich in

lymphocytes. This is as lymphocytes are exquisitely sensitive to the drug owing to lack of detoxifying enzyme aldehyde dehydrogenase [5,6]. The reported case thus exemplifies the drug use in yet another typically difficult to treat dermatologic condition, and adds to the armamentarium to deal with this recalcitrant disorder.

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