Tattoo Granuloma

Shaikh W N[1], Rambhia K[2], Mukhi J[3], Singh R P[4]

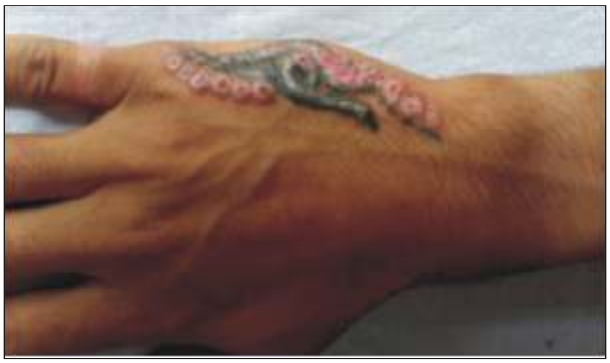

Figure 1 : **Nodules and Plaques along red ink sparing green ink**

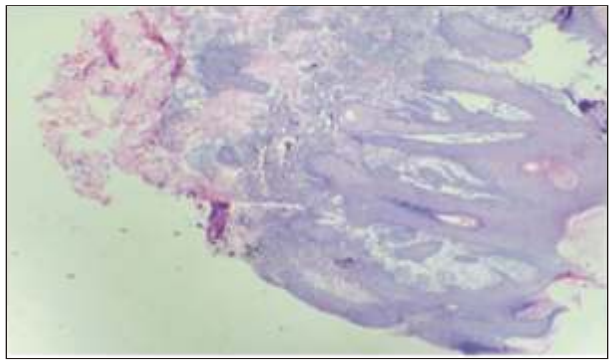

Figure 2 : **4 X, H & E view showing multiple granulomas in dermis**

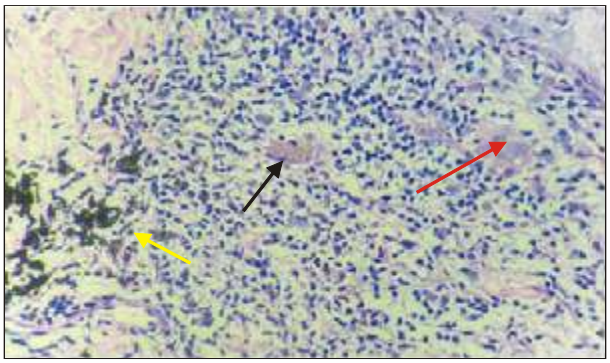

Figure 3 : **4O X, H &E view showing foreign body type giant cells *(red arrow)* pigment within giant cell *(black arrow)* and extra cellularly *(yellow arrow)***

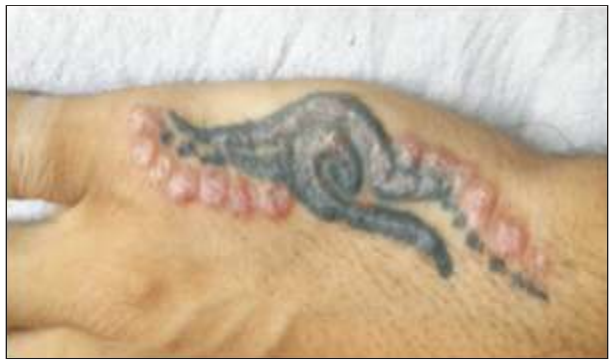

Figure 4 : **After 2 weeks of topical halobestol, reduction in size is seen**

A 20 year male student presented with itchy, painlesserythematous to skin colored plaques studded with nodules along the tattoo on ulnar side of right hand since 20 days with tattoo being done 1 month back. Nodules and plaques were seen along red ink, sparing green ink on the tattoo ***(Fig. 1).*** General and systemic examination was unremarkable.

[1]Resident, [2]Assistant Professor,
[3]Associate Professor, [4]Professor & HOD
Department of Skin & VD
Government Medical College, Nagpur

Address for Correspondence -
Dr. Jayesh Mukhi
E-mail : jayeshmukhi@rediffmail.com

Biopsy was done from a nodule, revealing granulomatous inflammation ***(Fig. 2)*** with foreign and langhans type of giant cells with pigment both intracellularly within giant cells and extracelluarly ***(Fig. 3).***

Patient was started on high potent corticosteroid (Halobestol) topically twice a day under occlusion for 2 weeks. Significant improvement in itching and reduction in size of lesion was noted. ***(Fig. 4)***

Tattoing is becoming popular nowadays in all age groups, increasing the cutaneous reactions parallerly.[1] Tattoo colors consist of inorganic pigments, organic dyes, or a combination of both. In the past, it appears that heavy metals, that were the backbone of tattooing for decades, have been

replaced by organic colorants.[2] Tattoo artists use various pigment compounds to create different colors and hues. Depending upon the compounds used and the color of the tattoo, a variety of cutaneous reactions can be expected. The composition of ink used for professional and amateur tattoo differs significantly. For amateur tattoos, carbon particles are used, while for professional tattoos, a mixture of insoluble metals with organic dyes is used.[3] With the growing interest in tattoos, there is also a need of awareness for unwanted adverse effects. Concerns are growing by official bodies and dermatologists.[4] Tattoo reactions can be divided into three main categories: inflammatory, infectious, and neoplastic. Inflammatory manifestations include focal oedema, pruritus, papules, or nodules at the tattoo site. Histologically they can be classified as lichenoid, eczematoid, foreign body granulomatous, and sarcoidal.[5] Foreign body reactions, mostly of the granulomatous type or pseudolymphomatous type, are seen commonly. Most of them resolve either spontaneously or after treatment with topical corticosteroids.[6] The most frequent tattoo reactions concern allergic contact dermatitis due to delayed hypersensitivity reaction to different pigments contained in the tattoos.[7] The main pigment causing allergic reaction is the red one, due to the presence of mercury and its sulphides. However, nowadays most reactions are not due to the traditional presence of mercury sulphides, but due to new organic pigments (e.g., Pigment Red 181 and Pigment Red 170)[1]

Steroids, laser therapy (Q Switched Nd-YAG), and excision are the backbone of treatment for allergic reactions to tattoos.[3]

Reactions to tattoos are increasingly being encountered in clinical dermatological practice. It is important for dermatologists to be aware of these reactions as their occurrence is bound to rise in future with increasing popularity of tattooing as a body art.[3]

Conflicts of interest : none reported by authors

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