



DERMA TODAY

Volume1 | Issue 2 | 2020

Dear Doctor,

Greetings from Micro Labs. We are happy to bring you "**Derma Today**" which contains latest and interesting news in the field of Dermatology.

This issue contains:

1. **Complications of tattoo in Psoriasis patient.**
2. **Today's Pick: Calciphylaxis : an unusual presentation.**

Should you require any article or, medical information, please feel free to contact us
medicalservices@microlabs.in

Looking forward to your valuable feedback.

Best Regards,

Medical Team, Micro Labs Limited.





Complications of tattoo in Psoriasis Patients.

Tattooing is very common. It is very commonly done. The prevalence varies from 10 to 30% in Western populations. Recommendations for psoriasis patient, forbids them to avoid having tattoo in case the disease is in active stage and if they are receiving immunosuppressive treatments.

Scientific data forbidding tattoo in psoriasis patients & supporting the above recommendation is lacking.

Dermatologists are often pretty reluctant when it comes to tattooing in psoriasis patients.

Objective:

The aim of this study was to evaluate the frequency complication due to tattoo in patients suffering from psoriasis.

The study was also intended to figure out if the complications were associated with the psoriasis status of the patient and treatments received by the patient at the time of tattooing.

Methods:

A multicentre cross-sectional study was undertaken. The enrolled candidates were adults with psoriasis. They were consecutively enrolled as participants and then segregated in groups as tattooed or non-tattooed.

The prevalence of complications associated with tattoos was then estimated according to onset of psoriasis and treatments undergone.

This study was divided into three parts. In it data were collected through questionnaires filled in by dermatologist.

Complications after tattooing being evaluated are pruritus, oedema, allergic reaction/eczema, infection/superinfection, granuloma, lichenification, photosensitivity, Koebner phenomenon and psoriasis flare.

The diagnosis of these complications were made retrospectively.

Results:

- A total of 2053 psoriatic patients were enrolled.
- Amongst them, about 20.2% had 894 tattoos.
- Amongst the psoriatic patients who were not tattooed, 15.4% wished to be tattooed. They stated that psoriasis was the reason for them not having a tattoo by 44.0%.
- 5.7% stated that they planned to have a tattoo done in their future.



- Local complications: oedema, pruritus, allergy and Koebner phenomenon were reported in tattoos in 6.6%. It was most commonly in patients of psoriasis undergoing treatment at the time of tattooing ($p < 0.0001$).
- There was no report of any severe complication.

The frequency of local complications associated with tattoos according to psoriasis and treatment status					
	All tattoos N=894 ^a	Tattoo before psoriasis onset n=336	Tattoo after psoriasis onset		p-value
			without treatment n=344	with treatment n=198	
Local complications	58 (6.6)	10 (3.0)	20 (5.8)	28 (14.1)	<0.0001
Oedema	19 (2.1)	5 (1.5)	5 (1.5)	9 (4.5)	0.049
Isolated pruritus	24 (2.7)	3 (0.9)	7 (2.0)	14 (7.1)	<0.0001
Allergy	2 (0.2)	0 (0)	0 (0)	2 (1.0)	0.03
Local infection	6 (0.7)	2 (0.6)	2 (0.6)	2 (1.0)	0.76
Koebner phenomenon (Fig. 2)	26 (3.0)	1 (0.3)	7 (2.0)	18 (9.1)	<0.0001
Psoriasis flare after tattoo					
Cutaneous psoriasis	29 (3.2)	3 (0.9)	11 (3.2)	15 (7.6)	0.0002
Psoriatic arthritis	3 (0.3)	1 (0.3)	2 (0.6)	0 (0)	0.53
Presence of psoriasis plaques within the tattoo during a flare of the disease ^b					
Psoriatic plaques within the tattoo (Fig. 3)	177 (19.8)	40 (11.9)	76 (22.1)	60 (30.3)	< 0.0001
Tattoos spared by psoriasis	417 (46.7)	169 (50.6)	158 (46.5)	80 (40.4)	0.07

Qualitative data are expressed as the number of tattoos, n (%). ^a No data on the timing of the tattoo procedure with respect to psoriasis onset or on the treatment received were available for 16 patients. ^b during follow-up

The frequency of local complications associated with tattoos according to treatment type				
Treatments received in the psoriasis with treatment group N=198				
	Local treatments n=72	Systemic treatments ^a n=56	Biotherapies n=67	P-value
Local complications ^b	5 (6.9)	8 (14.3)	15 (22.4)	0.03
Oedema	1 (1.4)	2 (3.6)	6 (9.0)	0.11
Isolated pruritus	4 (5.6)	2 (3.6)	8 (11.9)	0.19
Allergy	0 (0)	1 (1.8)	1 (1.5)	-
Local infection	0 (0)	1 (1.8)	1 (1.5)	-
Koebner phenomenon (Fig. 2)	3 (4.2)	6 (10.7)	9 (13.4)	0.15
Psoriasis flare after tattoo				
Cutaneous psoriasis	7 (9.7)	4 (7.1)	4 (6.0)	0.75
Psoriatic arthritis	0	0	0	
Presence of psoriasis plaques within the tattoo during a flare of the disease ^c				
Psoriatic plaques within the tattoo (Fig. 3)	18 (25.0)	17 (30.4)	23 (34.3)	0.48
Tattoos spared by psoriasis	36 (50.0)	20 (35.7)	24 (35.8)	0.15

Qualitative data are expressed as the number of tattoos n (%). ^a systemic treatments including phototherapy. ^b n (%) of tattoos associated with at least one complication. One tattoo may have been associated with multiple complications. ^c during follow-up

Conclusions:

The rate of complications incurred due to tattoo in patients suffering from Psoriasis was low. The risk of complications was highest amongst patients of psoriasis requiring treatment at the time of getting their tattoo done.



Today's Pick

Calciophylaxis: an unusual presentation.

Calciophylaxis is also known as calcific uremic arteriolopathy and calcifying panniculitis. It is a rare small vessels vasculopathy characterized by cutaneous ischemia and necrosis secondary to calcification. It is most commonly seen in patients suffering from end-stage renal disease (ESRD) and hyperparathyroidism. Histopathologic features of calciophylaxis: calcification of medium-sized vessels in the deep dermis or subcutaneous fat as well as smaller distal vessels that supply the papillary dermis and epidermis. It is commonly presented as well-demarcated, painful, purplish lesion that evolve into necrotic eschars.

An uncommon presentation:

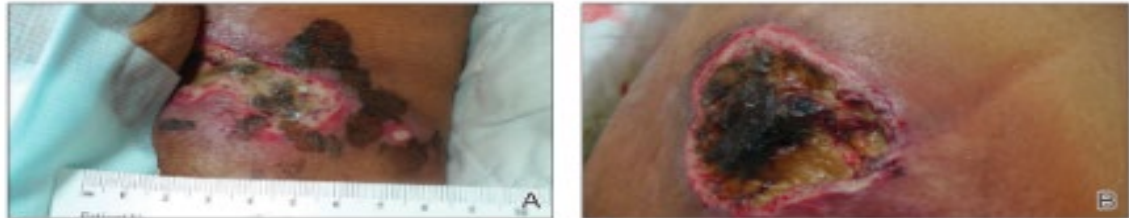
43-year-old female presented to the ER with history of chest and abdominal pain for 1 day. She gave a history of SLE and ESRD secondary to poststreptococcal glomerulonephritis, cerebral infarction, fibromyalgia, cerebral artery occlusion with cerebral infarction, sciatica, hyperlipidemia, deep vein thrombosis, and seizures. She also had surgical history for tubal ligation, nephrectomy and kidney transplant, parathyroidectomy, and cholecystectomy. She was on peritoneal dialysis. The patient was admitted as a case of peritonitis and treated with broad-spectrum antibiotics. She also had several painful bullae on her legs. The patient was on sevelamer carbonate, prednisone, epogen, calcium carbonate, esomeprazole, ondansetron, topical gentamicin, and atorvastatin.

Skin examination revealed several tense 1- 5-cm nonhemorrhagic bullae on the thighs and lower legs, some had ruptured. The lesions were tender. The Nikolsky sign was negative. The patient had grade 2 to 3+ pitting edema bilaterally. Antinuclear antibody, ds DNA, and anti-Smith antibody levels were negative. Punch biopsy of the left lateral thigh showed intraepidermal vesicular dermatitis with dermal edema (edema bullae), direct immunofluorescence was negative for immune complex and complement deposition.

Wound care was recommended & treatment with sodium thiosulfate. The patient continued to report persistent severe skin pain and developed a subcutaneous nodule on the right inner thigh 1 week later, prompting a second biopsy. Results of excisional biopsy were suggestive of calciophylaxis. The patient was then started on sodium thiosulfate with hemodialysis for treatment of presumed calciophylaxis.



Despite treatment, the patient developed ulcerations with necrotic eschars 1 month later.



- A and B, Rupture of nonhemorrhagic bullae on the left leg that evolved into ulcerations and necrotic eschars with surrounding purpura.

It worsened over the next few weeks. She developed sepsis and was admitted to the ICU. A biopsy was again performed confirming the diagnosis of calciphylaxis. Histopathology revealed small blood vessels with basophilic granular deposits in the walls consistent with calcium in the subcutaneous tissue (highlighted with the von Kossa stain), as well as thrombi in the lumens of some vessels; early fat necrosis; focal epidermal necrosis with underlying congested blood vessels with deposits in their walls; a perivascular infiltrate predominately of lymphocytes and neutrophils with scattered nuclear dust; and thick, hyalinized, closely crowded collagen bundles in the reticular dermis and in a widened subcutaneous septum.

This is the case in which the patient presented with skin pain and tender non-hemorrhagic bullae without underlying ecchymotic or erythematous lesions (the earliest sign of calciphylaxis).

Dermatologists should be suspicious in patients of dialysis-dependent ESRD, who present with bullae, pain and subsequent decline.

- Calciphylaxis is a rare microvascular occlusion syndrome characterized by cutaneous ischemia and necrosis secondary to calcification.
- Clinically, lesions present with severely painful, violaceous, retiform patches and plaques, and less commonly bullae that progress to necrotic ulcers on the buttocks, legs, or abdomen, which is most often associated with end-stage renal disease and hyperparathyroidism.
- The diagnosis is made through deep wedge or excisional biopsy and shows calcification of medium-sized vessels in the deep dermis and subcutaneous fat. Treatment requires a multidisciplinary approach, but morbidity and mortality remain high

Ref: Cutis. 2020March;105(03):E24-E27