MICRO LABS LIMITED

Derma Today

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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. Prevalence and Factors Playing Role in Hand and Face Dermatitis during COVID-19 Pandemic.
2. A case report of Scleromyxedema in a patient with acute lymphoblastic leukemia
3. Determination of gender-related differences in symptoms and therapeutic response to Platelet Rich Plasma: Analysis and results in 94 patients with genital lichen sclerosus

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forward to your valuable feedback.Best

Regards,

Medical Team, Micro Labs Limited.

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Derma Today

Prevalence and Factors Playing Role Factors Playing Role in Hand and Face Dermatitis during COVID-19 Pandemic.

Introduction

Preventive measures play a key role in keeping the spread of COVID-19 under check. Among the norms laid down to limit the spread of pandemic, handwashing and use of hand sanitizers were the major ones, which has led to certain significant skin changes. This study aimed at determining the prevalence and determinants of the new-onset of dermatitis during the COVID-19 pandemic.

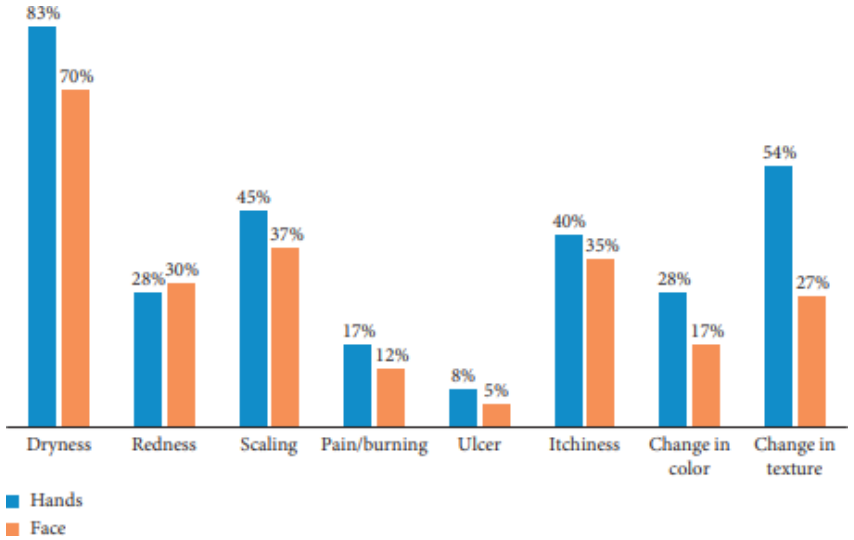
Methods

In this cross-sectional study, data was collected using a self-administered online questionnaire by sending an invitation link to the study subjects. A total of 2356 subjects participated in the study.

Results

Of the total 2356 participants, 34.8% reported skin changes or symptoms over hands, and 15.3% reported skin changes on their face during this pandemic. 88.7% of the participants reported a change in handwashing habits during the COVID-19 pandemic, and 62.2% of participants were not using any hand sanitizers before COVID-19 but began using them during the pandemic. Higher percentage of skin conditions in females were noted (on hands (ScH): 42.6% and face (ScF):19.2%), individuals working in environments requiring frequent handwashing (ScH: 40.3% vs. ScF: 17.2%), those working in facilities which involved interaction with people during the pandemic (ScH: 41.1% vs. ScF: 18.7%), those encountering COVID-19 patients (ScH: 48.6% vs. ScF: 24.8%), those exposed to chemicals (ScH: 48.6% vs. ScF: 24.8%), and healthcare workers (ScH: 51.3% vs. ScF: 24.3%).

Skin conditions on hands and the face during the pandemic



Discussion

Dermatitis involves an inflammatory pathology triggered by the allergens and/or irritant substances. Frequent hand-washing can lead to altered skin texture, ranging from dryness to dermatitis. The repeated use of soap or hand sanitizers may cause disruption of the skin's outer layer, with stress and atmospheric factors playing a contributing role.

In this study, it was also found that, most of the dermatological manifestations resulted in people who use sanitizers containing >60% alcohol. According to the WHO's recommendation, when one's hands are not visibly dirty or when soaps and water are not available, alcohol-based hand rubs (ABHRs) with an alcohol concentration of >60% are the most appropriate alternative.

The study subjects also reported skin changes on their face due to prolonged or excessive use of face masks. Existing studies report that 97% of the skin damage was due to enhanced protective measures and which mainly include 83% of the nasal bridge lesion.

Conclusion

In conclusion, the study found that, 'the rules to follow' during the COVID-19 pandemic, has led to skin changes among the general public).This is mainly due to excessive handwashing and the use of alcohol-based sanitizers. Changes in washing habits, the frequency (>10 times) and duration (>2 min) of handwashing, and sanitizer alcohol concentration (>60%) are also contributing factors. This problem can be addressed by proper awareness and appropriate practice measures as it is easily preventable and manageable by regular hydration of skin.

Reference

Alsaidan MS et al. The Prevalence and Determinants of Hand and Face Dermatitis during COVID-19 Pandemic: A Population-Based Survey. Dermatology Research and Practice. 2020: 6627472: 8 pages

A case report of Scleromyxedema in a patient with acute lymphoblastic leukemia

Introduction

Scleromyxedema is a rare, para-neoplastic, chronic progressive condition which belongs to the Lichen myxedematosus (LM) family. The clinical presentation involves generalized confluent popular eruptions with systemic involvement which may prove to be fatal due to indefinite therapeutic options. Histological findings reveal dermal mucin deposition, fibroblast proliferation with fibrosis, with monoclonal gammopathy in the absence of thyroid disease.

Case Report

A 21 year old female patient, who was on chemotherapy developed post chemotherapeutic pancytopenia with neutropenic sepsis, which was managed with intravenous antibiotics (tigecycline, colistin, meropenem, and ceftazidime), and blood product transfusion as per the need.
She was shifted to Intensive Care Unit (ICU) following a pulmonary hemorrhage.

During her stay in the ICU, she developed multiple, well defined velvety, thickened, darkly pigmented papules over her thighs, external genitalia, lower abdomen, and sub-mammary flexures, which gradually enlarged, merged, and thickened to form hyper-pigmented infiltrated plaque.

Scleromyxedema was suspected and a skin biopsy was performed which revealed large amounts of dermal amorphous mucinous material separating, increased thickened collagen bundles, which was confirmed by mucicarmine special stain. The biopsy also showed proliferation of of stellate fibroblasts, and superficial and deep perivascular lympho-plasmacytic infiltrates.

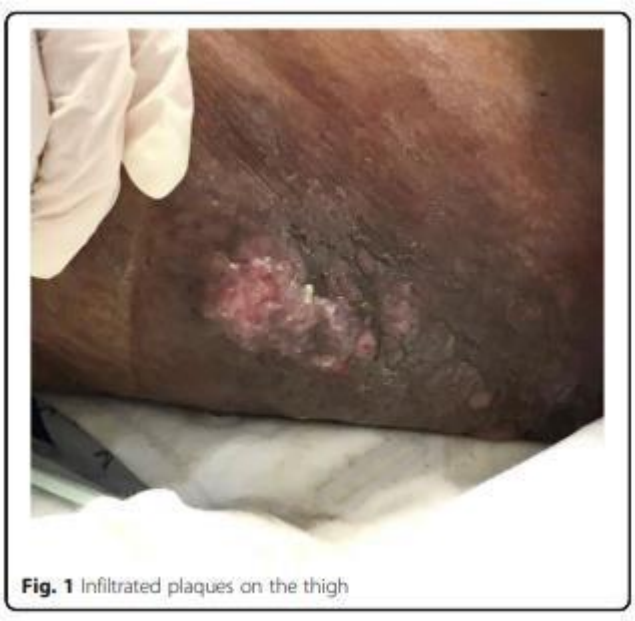


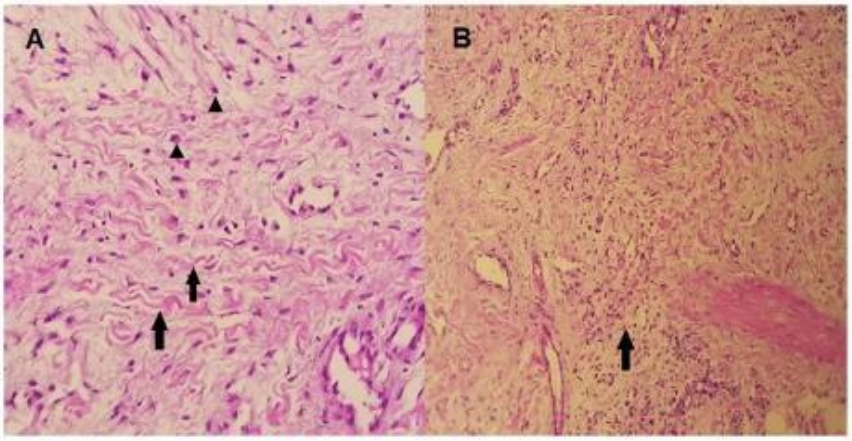
Fig. 1 Infiltrated plaques on the thigh

The patient was managed with IVIG (2g/kg) administered over 2 days, in monthly cycles for 6 months. This therapy was well tolerated. After commencing IVIG the patient showed improvement in the cutaneous lesions.

Discussion

The pathogenesis of scleromyxedema is thought to involve cytokines such as interleukin-1, tumour necrosis factor-alpha, and transforming growth factor-beta, which is known to stimulate fibroblast proliferation in the skin. Since, it is a para-neoplastic disease, a number of other malignancies were reported in the studies in association with scleromyxedema. High dose IVIG has recently become a more popular therapeutic option for the management of scleromyxedema. In, this case improvement started after the first infusion of IVIG, and complete resolution was achieved after 3 infusions.

Skin biopsy examination shows increased thickened collagen bundles separated by large quantities of amorphous mucinous material (arrows), with stellate fibroblasts (arrow heads) (Hematoxylin and Eosin, x40). b Lymphoplasmacytic infiltrate in the superficial and deep dermal blood vessels (arrow) (Mucicarmine, x 20)



Conclusion

Scleromyxedema is a rare and fatal dermatological disorder. High precision is required for the diagnosis of the same, which requires to be supported by a group of pathological features. Scleromyxedema lacks a definitive management.

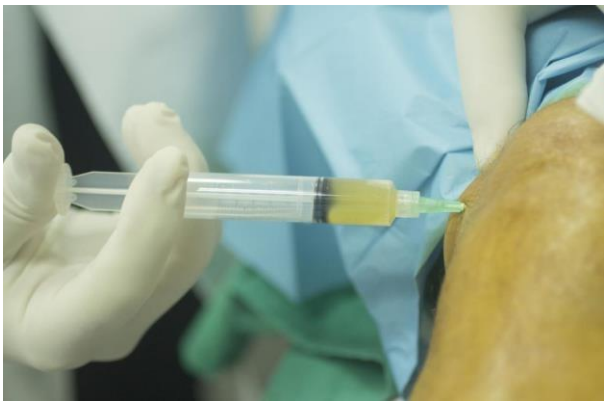
Reference:

Rabee H, Tayem L, Gharbeyah M, Abugaber D. Scleromyxedema in a 21 year old female patient with acute lymphoblastic leukemia: a case report. BMC Dermatol. 2020 Dec 4; 20(1):18.

3. Determination of gender-related differences in symptoms and therapeutic response to Platelet Rich Plasma: Analysis and results in 94 patients with genital lichen sclerosus

Introduction

Lichen sclerosus (LS) is a chronic relapsing inflammatory dermatoses associated with a predilection for anogenital skin in 85%-98% of cases and shows higher prevalence in women (3%) than in men (> 0.07%). The purpose of this study was to



determine whether gender differences exist, in presentation of clinical symptoms and in response to treatment with autologous PRP injection.

Materials and Methods

A total of 94 patients with LS were included in the study which comprised of 43 male and 51 female patients. Every subject received the PRP treatment – 1 infiltration every 15 days, for 3 times.

Results

Good tolerance was shown by all the study subjects and the decrease in the symptoms were was seen in 6 months after PRP infiltration. Both the genders showed reduction in pain and burning sensation but it was more significant in women compared to men. However, the reduction in itching was similar. Dyspareunia showed gender related differences that notable diminution was seen only in the male patients.

Discussion

A large quantification of symptoms reported subjectively by men showed that women complain more frequently than men. In women, the symptoms that are more responsive to PRP treatment are itching, burning sensation and pain, whereas dyspareunia was mildly affected by PRP injection. By contrast, males achieved relief of all the symptoms.

Conclusion

The study showed that female had significant symptoms related to the clinical stage. Both female and male patients had a significant reduction in symptoms after 6 months of PRP treatment. It was found that, the therapeutic response is independent of the patient's clinical stage.

Tedesco M, Garelli V, Bellei B, Et al. Platelet-rich plasma for genital lichen sclerosus: analysis and results of 94 patients. Are there gender-related differences in symptoms and therapeutic response to PRP? J Dermatolog Treat. 2020 Dec 6:1-5.