Skin As A Reflection Of Hepatitis C Virus Infection And Adverse Effects Of Its Treatment

K Jasleen, K Jyotika

Citation

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Abstract

Sir,

Hepatitis C viral infection (HCV) is a major global health concern with 170 million people affected worldwide there are estimated 12 -13 million carriers in India presently[1]. Currently the combination of peg interferon and ribavarin is considered the standard treatment of HCV infection[2]. Although combination of these two drugs is most effective but it is also associated with increased risk of side effects due to immunomodulatory effect of both the drugs[3]. Dermatological side effects in the form of skin rashes, dryness, pruritus, pyoderma gangrenosum, alopecia, toxic epidermal necrolysis, new or exacerbation of psoriasis, induration and ulceration at the injection site can occur[4]. On the other hand various skin disorders such as lichen planus, necrotising vasculitis or porphyria cutanea tarda are more commonly associated with hepatitis C infection[5].

We as dermatologist are referred cases with cutaneous manifestations from various specialties and should be aware whether these changes are due to disease itself or its treatment. We observed 30 HCV positive and HIV negative cases with dermatological manifestations (Table- 1) on combination treatment with Ribavarin and peginterferon who came to our OPD over a period of two years for skin opinion. Out of those 30 cases, 28 patients were males and only 2 were females. They were in the age range 35 to 55 years. All of them were on a regimen of peginterferon 180mcg weekly and Ribavarin 1000mg daily for 24 weeks. All the cases were diagnosed clinically and were supported by skin biopsy where ever required. Majority of these cases belonged to genotype 3 and 4.

In all the cases we took detailed history with regard to the clinical pattern of dermatological manifestation, temporal relation between drug use and onset of skin lesions, history of intake of any other drug, whether similar skin lesions were also present prior to initiation of treatment, route and frequency of drug administration as devised by Sacredots et al[6].

Figure 1

Table I: Showing various cutaneous manifestations in our patients

S. no	Cutaneous manifestation	Number of cases
1	Generalised pruritis	14
2	Injection site inflammation	7
3	Eczematous rash	4
4	Photoallergic rash	2
5	Steven Johnson syndrome	1
6	Exaggerbation of Psoriasis	1
7	Oral lichen Planus	1

2 of our patients developed photoallergic rash in the form of erythematous scaly urticated patches on photoexposed sites(neck and extensor aspect of arms) Fig 1. They developed the rash after 8 and 12 weeks of treatment respectively. There was no history of similar lesions prior to the onset of disease or initiation of treatment. Ribavarin has been found to be a potential photosensitiser in patients of HCV infection on combination treatment as its absorption spectrum revealed maximum absorption within UVB at 282.5nm[7]. Patients were advised about sun avoidance and were managed with topical sunscreens, topical steroids and oral antihistaminic. Both the patients improved without stopping or altering the dose of the offending drug.

Figure 2

Figure 1

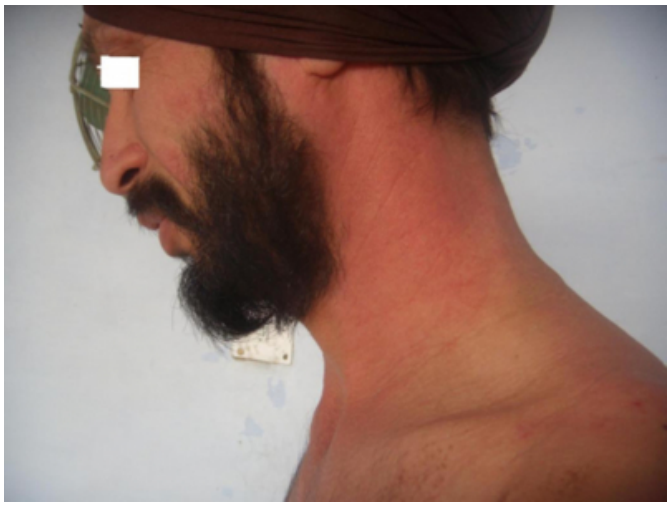
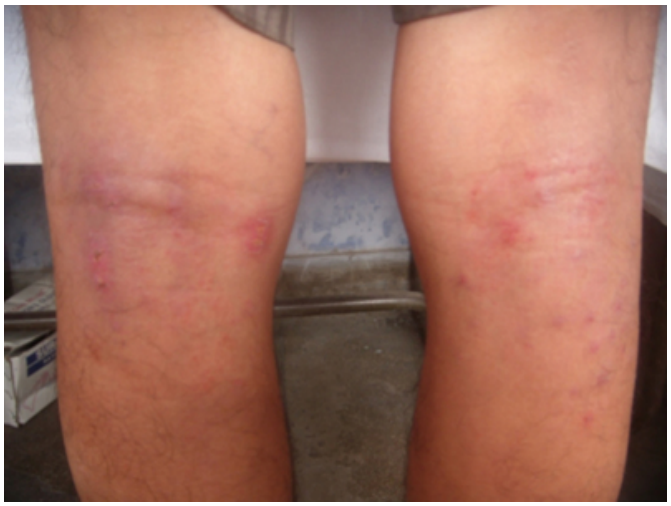


Figure 3

Figure 2



Eczematous rash was seen in 4 male patients between 3 to 4 weeks in the form of erythema, scaling and oozing on abdomen, flexors of legs (Fig 2) and back in varying severity. History of atopy was positive in 3 cases and these cases were managed with topical steroids, emollients and low dose oral steroids without stopping the therapy for HCV infection. Maddrey[8]has reported an increased incidence of eczematous rash after the combination therapy.

Injection site inflammation and erythema was observed in 7 of our patients, all of them were males. They developed the reactions early in the course of treatment and were advised general precautions like rotation of injection sites, not to massage the site and cold compresses. Fried reported the incidence of injection site in approximately in 60% of the cases[4].

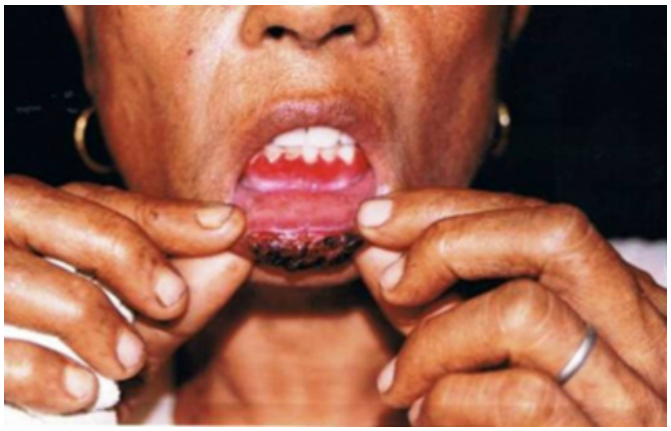
Generalized pruritus was observed in 14 cases, one of the patients was female and rests of them were all males. After taking detailed history we found that the complaint of generalized itching was present before the start of treatment in 5 patients, rest of the patients developed itching between 10 to 15 days of starting the therapy. They were managed without stopping treatment with soothing lotions topically and oral antihistamines only. Generalized pruritus has otherwise also been observed in HCV positive patients as well as patients on its treatment[6].

Exacerbation of psoriasis was seen in one male patient. The patient was having plaque psoriasis with less than 20% body surface area involvement and was controlled with topical treatment for psoriasis. After 6 to 8 weeks of starting the combination therapy for HCV infection his psoriasis became uncontrolled and generalized. His serum transaminases were raised so he was put on oral steroids for 2 weeks with not much improvement so his combination therapy had to be stopped. Similar case was reported by Kartal and collegues[9].

There was one female patient in our study who developed haemorrahic crusting over lips (Fig 3), erosions in the oral and genital mucosa, painful micturition, high grade fever and erythematous rash involving more than 20% body surface area within 3 weeks of starting the therapy. After thorough clinical examination and history patient was diagnosed as a case of Steven Johnson syndrome for which she was hospitalized and was put on injectable steroids and I/V line was maintained. Her vitals were maintained and condition improved within 10 days so gradually the steroids were tapered. Rechallange with combination drug was not accepted by the patient so we had to stop the combination therapy in this case. It has been found to be rare complication of HCV therapy[4].

Figure 4

Figure 3



One patient developed painful erosions in the mouth along with burning sensation and difficulty in eating after one month of initiation of therapy. On examination reddish erosions were present on hard palate, sides of tongue and buccal mucosa. Mucosal biopsy was done where mainly band like infiltrate with plasma cells was seen. On careful history taking patient told that he was already having some burning sensation in the mouth even before commencement of therapy which he ignored. We attributed this to HCV infection and the disease probably got exacerbated by the combination therapy. Lichen planus like lesions have been reported to be associated with HCV infection[5].

DISCUSSION

Different types of cutaneous manifestations are seen in HCV infection as well as during its treatment. As in our study we observed flaring up of psoriasis, oral lichen planus and pruritus after initiation of therapy whereas few new cutaneous manifestations like Steven Johnson syndrome, injection site necrosis, photo allergic and eczematous rashes appeared after initiation of therapy. Various clinical trials have attributed incidence of skin lesions as 24-28% due to combination therapy[10]. In our study we could not find the exact percentages as we randomly included only those patients who were referred to us for dermatological manifestations during HCV therapy and our study group was small.

Certain cutaneous lesions could be the manifestations of a particular disease or can get exacerbated during the course of the treatment of that disease. Therefore it is recommended that all the patients who are to be put on combination therapy for HCV infection should be screened for preexisting dermatoses prior to the onset of therapy so that any manifestation is not unnecessarily related either with the disease association or as a side effect of the therapy.

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Author Information

Kaur Jasleen, MD
Associate Professor, Department of Dermatology Venereology, Leprosy, Sri Guru Ram Das Institute of Medical Sciences and Research

Kalsy Jyotika, MD
Senior Resident, Department of Dermatology Venereology, Leprosy, Govt Medical College, Amritsar