

Cutaneous manifestations during recent pandemic, co-infection or pre or post COVID-19 manifestation-managed by Ayurveda

Shantala Priyadarshini[#], Pooja Gowda[#], Pannaga Samir[#]

Abstract—Background: Unique cutaneous manifestations simulating viral infection like intense itching, rashes, maculo papular eruptions etc are noted. Etiological factors, underlying pathology, prevalence, whether it manifests in initial stage or post covid or if it predicts associated severity, linked symptoms, later complications, adverse drug reactions and many other associated issues need to be reported and evaluated. **Method:** Reporting five cases with varied cutaneous manifestations during July 2020 from India. Frostbite like skin lesion, maculo papular eruptions in two cases, two rash like manifestations were considered and managed by Ayurveda. Patient who lived in same house as covid infected person, travelled from red zone, who tested positive for COVID-19 infection. **Results:** Itching and redness were the predominant symptoms which reduced quickly in 6 to 8 hours, eruptions gradually reduced in 3 to 6 days. **Conclusions:** Cutaneous manifestations during the pandemic suspected or confirmed COVID-19 infection 5 cases reported from India, managed by Ayurveda indicates post COVID-19 needs to be managed to improve quality of life and prevent further complications.

Keywords—Maculopapular eruptions, COVID-19, Ayurveda management, Viral skin manifestation

I. INTRODUCTION

Pandemic brings with it many challenges and opportunities. Telehealth and communication technologies have had huge impact during COVID-19 and has been utilized much in medicine, surgery, dermatology etc and the Indian traditional medical systems like Ayurveda, yoga, Unani, Siddha, Homeopathy (AYUSH). It has been a greater challenge as the virus has been manifesting with highly rapid manifestations involving various systems like respiratory, neurological, dermatological systems.

Social distancing and frequent travels restrictions made patients and doctors rely much on technology for communication like video calls not just audio calls. Prevention of spread of infection from doctor to patient and vice versa Many aspects of COVID-19 globally has been reported as changing every minute. From April 2020 random reports about cutaneous manifestations started pouring in [1]. Specialists from AYUSH and Dermatology need to accept technology and become familiar with ever changing symptoms of the presentday pandemic ailing mankind [2]. Skin being a vast part, highly sensitive organ has been manifesting multiple symptoms during this pandemic viral infection also. From Italy

came the first reports of skin manifestations in March 2020 and data collected from 88 patients was reported [3].

Some cases developed viral skin symptoms at the onset and few after hospitalization, which included erythematous rashes, urticaria and chicken pox like eruptions [4]. Due to seriousness of contagion, photos were not taken nor biopsies. It was concluded that these skin manifestations were almost like all viral dermatological lesions and more reporting needs to be encouraged to understand in depth [5]. Few authors reporting skin manifestation of COVID-19 urge testing all skin eruptions or febrile rash like manifestations as understanding it in depth is much needed [6-11].

1.Objective: Cutaneous manifestations in suspected or confirmed COVID-19 infection, case reports from South India, managed by Ayurveda. 2.Create awareness of cutaneous manifestations in Covid19 among physicians and to get lab tests extensively done in such cases also. 3.Cutaneous manifestations as initial or post covid manifestation needs to be considered for testing for early diagnosis and or prognosis. 4.Viral infections management as in the pandemic was adopted.

II. METHODS

All five cases included 4 from Bangalore among them one had travel history abroad, one reported from Mumbai all cases had family members tested positive for COVID-19.Cases include two young boys aged 6 and 10 years, two diabetic aged 35 and 51, one seemingly healthy 80-year case.

Interventions

Isolation, guidelines of Government of India along with Ayurveda diet and medications given included –Samshamani vati, Amrutha satwa mixed with Aswagandha churna and Swamla compound rasayana, Shatadouta grta and neem turmeric paste for application. Turmeric milk, Ayurveda, yoga, Unani, Siddha, Homeopathy (AYUSH) qwatha tablets dissolved in water advised frequently. Applications stopped after 5 days and but Swamla compound rasayana and guidelines continued for 40 days.

Each case was recorded utilizing tele communication as approved by Government of India [12] Patient sometimes represented by self or by parents or family members contacted doctor and recorded photos on day one and after treatment was started, photos and video consultation was continued as per necessity. Initially for some viral skin manifestation was recorded and similar management as viral infections were advised.

Shantala Priyadarshini, Pannaga Samir and Pannaga Samir are with Department of Dr.Vijaya's Ayurveda Research&Therapy centre, India.

Shantala Priyadarshini is the Corresponding author. (e-mail: shantala3001@gmail.com)

[#]Shantala Priyadarshini, Pannaga Samir and Pannaga Samir are the co-first authors of this paper.

III. RESULTS

Case 01

Boy aged 5 years, was vaccinated as per schedule, no history of allergy or travel or exposure to COVID-19 positive case. Developed macula popular (chicken pox like) eruptions on trunk and palmar aspect of hand (Figure 1). Not allergic to any food, nor on any medication. Patient has not taken any food from outside not any change in food habits nor exposed to any positive case.



Figure 1 Chicken pox like eruptions before treatment

Afebrile case reported intense itching due to which sleep was disturbed and no other symptom. Whole family on Ayurveda treatment from several years so opted to continue same. COVID-19 Antibody test negative (report enclosed, Suppl. 1). As boy was going to play school and was interacting with several kids was advised Amrutha satwa 1/4th teaspoon four times a day either with honey or tulsi juice or ginger juice. From next day was advised neem paste mixed with adathoda leaf paste and turmeric powder before bath. Itching stopped on 2nd day and eruptions gradually diminished by day 3 and unlike chicken pox did not spread but reduced totally (Figure 2). Patient was on follow up for 15 days.



Figure 2 Chicken pox like eruptions after treatment

Case 02

Boy aged 10 years, macular eruptions on chest, very similar to case 01 but itching was not present- and third-day morning the eruptions disappeared (Figure 3). As he had no symptoms was not willing to get any test done or take medicine.

Patient was advised turmeric milk and easily digestible food. Ayurveda advocates not taking any medicine for few days.

Early fever, cold and conditions which are self-limiting need no medicine. Patient sent photo after eruptions disappeared (Figure 4).



Figure 3 Maculo papular eruptions before treatment



Figure 4 Maculo papular eruptions After treatment

Case 03.

Seemingly healthy 80-year-old with no co morbidities developed frost bitten swollen fingers with pain and itching from 2 days. Not known to be allergic to any food or medicine but returned from Mumbai 3 months ago to Bangalore. Patient was in contact with any COVID-19 positive case, not known to have any skin manifestation.

There was no other symptom except as seen in the photo that was shared, he was tested for antibodies which turned out negative (Figure 5, Suppl. 2). Patient was advised Amrutha satwa mixed with Ashwagandha churna ¹ tea spoon three times a day with in milk or ghee. Frost bitten like peeling was painful so was advised shatadhouta grta for application twice a day. After oral medication and application all symptoms reduced and totally relieved in 6 days (Figure 6).



Figure 5 Frost bitten before treatment



Figure 6 Frost bitten after treatment

Case 04.

Known diabetic on Ayurveda treatment, patient aged 51 years was in primary contact with COVID-19 patient and quarantined for 15 days. By the end of 14 days developed rashes nape of neck and got antibody test which showed antibodies (Figure 7, Suppl. 3).

Patient was on samshamani vati 2 tablets 3 times a day and Balachaturbhadrha rasa 3 times a day. Patient has taken these medicines whenever he had any health issues for 12 years and continued his usual medications for controlling diabetes.

Patient rashes below the neck and nape was gone in 3 days and as the usual medicines were consumed it can be presumed not to have results in rashes (Figure 8). So it could be presumed not to be a drug or diet induced allergic rash nor was he wearing any PPE as he is not in any such profession.



Figure 7 Covid like rashes before treatment



Figure 8 Covid like rashes after treatment

Case 05

36-year-old case presented with travel history back from Germany to Bangalore, symptoms of cold, sneezing, itching with rashes, malaise (Figure 9). Known case of insulin dependent diabetes glucose under control.

Patient was advised to get COVID-19 antibody test done and continue medications as before (Suppl. 4). Along with Arutha satwa mixed with Ashwagandha churna ¹teaspoon 4 to 5 times per day mixed with either juice of tulsi, ginger, neem or milk, All symptoms under control but itching persisted but rashes have reduced in 2 days (Figure 10).



Figure 9 Redness discolouration before treatment



Figure 10 Redness discolouratio after treatment

IV. DISCUSSION

preferred choice of management of dermatological manifestations is Ayurveda or home remedies specially in South India. These five cases whose family consult Ayurveda for all ailments contacted Ayurveda for these dermatological manifestations and shared photos of the lesions. All reported cases permitted to use their photos and lab reports and shared their photos online. During this pandemic we found photos shared online and saw similarity in all these reported cases. Two cases reported chicken pox like manifestations, two rashes and one with frost bitten like lesion. These cases manifesting during SARS-COV-2 are reported with photos but it is not conclusive if it has direct link to the underlying pathology of this virus or any other similar virus. Chicken pox like maculo popular manifestations are known as 'Masoorika and said to be caused by invisible organisms classified under raktaja krimi [7, 8].

Virus manifestations described in Ayurveda include infectious conjunctivitis, (Pittaja abhishandha) skin manifestations (visarpa, sheealika, masoorika etc) [9, 10, 13]. Management was to reduce itching and improve immunity as amrutha satwa (aqueous extract of *Tinospora cardifolia*), and Ashwagandha churna (*Withania somniferra*) have been proved as antiviral and immune modulators [13]. Application of neem (*Azadirachta indica*) vasa (*Adathoda vasica*) haldi (*Curcuma longa*) has been effective in most dermatological manifestations.

V. CONCLUSION

Reporting skin manifestations are much needed to fathom if they are directly linked to SARS-COV-2 virus or any similar virus, which becomes virulent during this pandemic. [11, 12] Globally dermatologists have acknowledged that these cutaneous manifestations could be "counted", as presumed positive /past infection with COVID-19 and plausible underlying

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pathologies need to be fathomed. This report also has a prospective that other similar viruses could also be virulent during this pandemic which could be manifesting in strong individuals resisting SARS-COV-2 [14, 15].

The role of AYUSH creating task force to guide and support the rational fight against the pandemic is a step forward to imp global solutions is most welcoming [14, 15]

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