



VARICELLA LIKE DERMATOLOGICAL MANIFESTATION FOLLOWING SARS-COVID-19 INFECTION :A DIAGNOSTIC DILEMMA

Medicine

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KEYWORDS

INTRODUCTION

The infection caused by the novel SARS-CoV-2 is a public health emergency of international concern. Although, COVID-19, mainly affects the lungs, the infection can spread to extrapulmonary tissues, causing multiorgan involvement in severely ill patients. The infectivity of SARS-CoV-2 is related to the pattern of expression of the viral entry factors ACE2 and TMPRSS2 in human tissues. As such, the respiratory and gastrointestinal tracts are at high risk for SARS-CoV-2 infection due to their high expression of ACE2 and TMPRSS2, which explains the clinical phenotype described in the vast majority of infected patients that includes pneumonia and diarrhea. Recently, concern regarding virus to infect the skin has been raised by dermatologists due to the increasing observations of cutaneous manifestations in patients with SARS-CoV-2 infection. Although there is little evidence of the expression of ACE2 and TMPRSS2 in the normal skin, the dermatological findings observed among COVID-19 patients warrants further investigation to delineate the mechanisms of skin affection after SARS-CoV-2 infection[1]. The frequency of skin lesions in these patients varies between 1.8 % and 20.4 % . The major dermatologic morphologies described in CoVID-19 cases were morbilliform, pernio-like, urticaria, macular erythema, vesicle, papulosquamous and retiform purpura [2].

BACKGROUND

Various cutaneous manifestations have been observed in patients with COVID-19 infection. However, overall similarities in the clinical presentation of these dermatological manifestations have been summarized as morbilliform, pernio-like, urticaria, macular erythema, vesicle, papulosquamous and retiform purpura.

CASE PRESENTATION

A 74-year-old Indian male presented with chief complaints of acute onset of fever and lethargy for 7 days, He has had a cough without any productive sputum for 3 days. Furthermore, He had loss of appetite for 7 days and was suffering from breathlessness for 1 day

On Examination, Patient appeared to be in distress with laboured breathing. His blood pressure was 136/82 mm of Hg, pulse was 110 per minute and Respiratory rate was 24 breaths per minute. On Auscultation, Bilateral lower lobe crackles were heard.

Pulse oximetry showed saturation around 85-90%. Rapid Covid test was done and the result was positive and subsequent RT-PCR was confirmative of acute SARS- CoVid 2 infection. He was admitted to the intensive care unit.



Fig 1



Fig 2 : Acute presentation of polymorphic rash and fluid filled lesion over trunk, back, bilateral Upper and lower extremities for 02 days. On Examination crusted papules, ruptured blisters with healing base.

INVESTIGATIONS

8/12/2020 - Covid +ve
 15/12/2020 - Repeat CoVid +ve
 23/12/2020 - Repeat CoVid +ve

Fasting blood sugar level was normal and HIV, HBsAg and HCV were negative.

Complete Blood Count

Date	8/12	12/12	17/12	20/12	27/12	23/12
Hb	11.3	12.5	11.7	12.6	13.6	13.6
Leucocyte	11400	9700	14100	17100	9000	25800
Differential	82/16	60/24	60/24	62/24	30/65	30/65
Platelet	124000	240000	228000	214000	84000	64000

ESR on admission :72

CXR: Patchy inhomogeneous radiopacity noted in left upper lobe, bilateral mid and lower lung zones consistent with consolidation.

	12/12	17/12	21/12
Procalcitonin Level	<0.1	0.83	<0.1
Ferritin	317.8	325	705.4
IL- 6	24.5	3.19	35.37
	21/12	23/12	25/12
PT	19.8	13.4	11.8
INR	1.65	1.11	1.06
APTT		41.2	39.2

CMP

Date	8/12	8/12	9/12	14/12	18/12	17/12
B. Urea	85	125	134	95	70	47
S.Cr	1.57	1.43	1.3	0.89	0.94	1.17
S. Bilirubin	0.4	0.6	0.4	0.4	0.4	0.4
ALT		11	14		20	41
AST		27	28		37	38
ALP		111				98
SNAT	135	145	138	145		140
SKT	3.9	5.0	4.7	4.3		4.1
LDH	857		441		587	429
D- Dimer	3.9	5.0	4.7	4.3		4.1

CSF fluid examination

Physical Examination	27/12/2020
Quantity	2cc
Color	Reddish
Transparency	Slight turbid
Microscopic Examination	
Cell Count	150/ mm ³
Polymorphs	07%
Lymphocytes	93%
Protein	70mg/dl
Glucose	93 mg/dl

On wet mount : 15-20 RBCs and occasional WBCs/ HPF

TREATMENT and OUTCOME

Patient was started on Remdesvir iv for 05 days. Inj.MPSS 40 mg iv bd, inj enoxaparin 0.6cc bd and Antibiotics given as per supportive standard guidelines. Local application of Fusidin cream over the lesion.

Patient died within few hours of intubation due to (retrospectively found) viral encephalitis.

DISCUSSION

Covid-19 can cause severe pneumonia in many patients. A strong immune response in form of cytokine storm syndrome has been well documented. But to a lesser degree it's been seen that covid also can cause variable level of immune suppression and it can lead to reactivation of some dormant virus. As in our patient it caused varicella like skin changes probably due to virus reactivation. As patient died immediately after that, we can't exactly correlate it with that. We need some more studies for confirmation of cutaneous manifestation of covid 19.

REFERENCES

- 1) Dermatological aspects of SARS-CoV-2 infection: mechanisms and manifestations Myriam Garduño-Soto, Jose Alberto Choreño-Parra, and Jorge Cazarín-Barrientos
- 2) The spectrum of COVID-19-associated dermatologic manifestations: An international registry of 716 patients from 31 countries Esther E. Freeman, MD, PhD, Devon E. McMahon, BA, [...], and Lindy P. Fox, MD