

Case report of rosacea after face mask use

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Abstract:

Wearing a face mask during COVID-19 pandemic is associated with aggravation of dermatological diseases such as contact dermatitis , acne and rosacea. We present a case of flare up of rosacea in a nurse using FFP1 type mask at work and cotton mask outside the hospital.

Keywords: COVID-19, erythema, face mask, Duration of mask wear.

1. Introduction

The corona virus disease (COVID-19) is a global pandemic caused by severe acute respiratory syndrome (SARS-COV-2 Virus). It is mainly transmitted through respiratory particles from infected individuals and even asymptomatic cases can be contagious [1]. Face mask is a type of personal protective equipment used to prevent spread of respiratory infections and it may be effective at helping prevent transmission [2].

2. Case report :

A 54 year old female patient working as a nurse was examined for pruritis , erythema spread on the face within face mask area (Figure 1) . She was not taking

any medication and had not any allergic history. She has been wearing a FFP1 type mask at work and cotton mask outside the hospital.

She was initially treated with oral antihistamines and moderate potent topical steroids of a presumed diagnosis of contact dermatitis , but the lesion was aggravated after short cure.

Based on clinical examination a diagnosis of erythematotelangiectatic rosacea was suspected aggravated by prolonged use of face mask.

Bacteriological and mycological examinations were negative.

Demodex was not found on repeated examination due to intensive wash of the face with soap.



Fig. (1) erythematotelangiectatic rosacea.

We gave her topical treatment as (pimecrolimus cream) administered before and one hour after removal of face mask, and emollient cream. A improvement was obtained after three weeks of treatment.

3. Discussion

Coronavirus disease 2019 (COVID-19) first emerged in China and rapidly spread in the world causing a pandemic within a short period and as there is no established effective treatment currently for the virus, it is necessary to use protective strategies to reduce the risk of transmission. This protective strategies as hand hygiene, environmental control, PPE

had been used for the control of this pandemic. Prolonged use of face masks trigger facial skin disease [3].

Flare up of rosacea in patient wore facial mask has been reported. Prolonged mask wearing exaggerated vascular hyperreactivity [4].

Medical treatment should be associated to daily application of moisturizers before and after face mask removal [5]. Sun avoidance and photoprotection are an important part of management [6].

After this case report , we conducted the study on patients attending to dermatology clinic of Benha university who wore face masks during pandemic.

The collected data were revised, coded, tabulated and introduced to a PC using Statistical package for Social Science (IBM Corp. Released 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.).

Data were presented and suitable analysis was done according to the type of data obtained for each parameter.

4. Results

Table (1) Age and gender distribution among studied cases.

	Cases N=320	
Age (years)	mean±SD 29.8±9	
	N	%
Females	218	68.1%
Males	102	31.9%

SD, standard deviation

Mean age of all studied cases was 29.8 years, 68.1% were males and 31.9 % were females.

Table (2) Disease onset among studied cases.

	Cases N=250	
onset of disease	N	%
Old onset (preexisting)	113	45.2%
recent onset	137	54.8%

Onsets of diseases were old in 45.2% and recent in 54.8%.

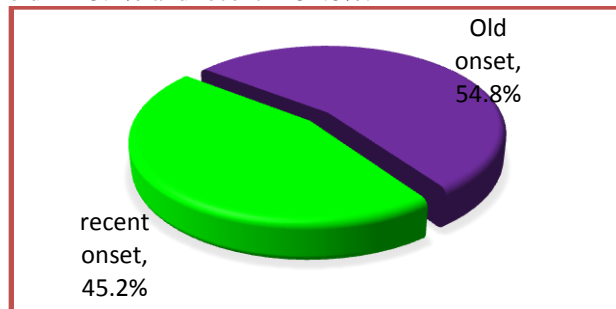


Fig. (2) Dermatologic disease onset among studied cases.

Table (3) Duration of mask use among studied cases.

	Cases N=250	
Duration of mask use	N	%
<4 hours	119	47.6%
>4 hours	131	52.4%

Duration of mask wear was less than 4 hours in 47.6%, and more than 4 hours in 52.4%

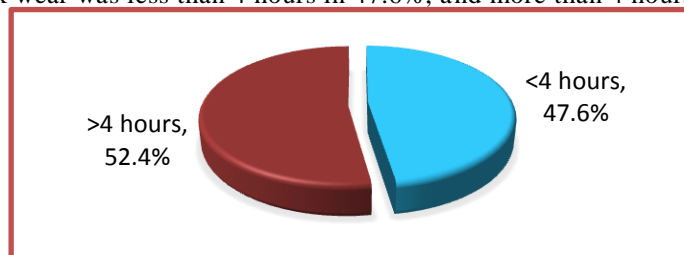


Fig. (3) Dermatologic duration of mask use among studied cases.

5. Conclusion

The present case highlights the idea of rosacea and other dermatological diseases due to face mask wearing during COVID-19 pandemic. So, preventive measures to avoid these mask related dermatoses should be followed. If wearing masks for a long duration and in the case of sensitive skin, use topical zinc oxide to reduce friction between skin and masks. In the case of preexisting facial dermatoses such as rosacea, seasonal facial dermatitis or seborrheic dermatitis, preventive equipment should not be used for long periods, moisturizers should be applied

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