

A SURVEY OF THE IMPACT OF THE COVID-19 EPIDEMIC ON THE SKIN CONDITION AND SKIN CARE HABITS OF CHINESE RESIDENTS

X.WANG⁽¹⁾, L.LIU^(1,2), H.YANG⁽¹⁾, D.KEROB⁽³⁾, X.ZHANG⁽⁴⁾, Z.ZHANG⁽⁴⁾, Z.LIU⁽¹⁾, B.YANG^(1,2)

(1) Dermatology Hospital, Southern Medical University, Guangzhou, China – (2) Institute for Global Health and Sexually Transmitted Infections, Southern Medical University, Guangzhou, China – (3) Laboratoire Dermatologique La Roche-Posay, Levallois-Perret, France – (4) L'Oréal China Co., Ltd, Shanghai, China

INTRODUCTION

The China Dermatologist Association has initiated a “national residents’ scientific skincare habits survey in post COVID 19 era” to:

- Investigate the impact of lifestyle changes caused by the pandemic in terms of facial skin problems due to mask wearing for a long time,
- Analyze Chinese residents’ facial cleansing and moisturizing habits,
- Provide skin care advice in the post COVID 19 era in terms of right way of wearing masks, skin cleansing advice and choice of most appropriate moisturizing products.

MATERIAL & METHODS

The survey, conducted in 34 provinces in China through the Internet, used a questionnaire of 28 questions pertaining to previous and current skin condition, types of masks and wearing habits, impacts of mask wearing, facial cleansing/moisturizing habits, and the post-epidemic situation with respect to skin care habits and request for skin care advice. Of 9,258 respondents, 6,641 were validated and were mostly aged 18 to 40 years (82.8%), the majority being females (82%).

RESULTS

A vast majority (92.3%) used to wear surgical masks. Average mask wearing durations per day of 2 hours, 2-4 hours, 4-8 h, 8 hours, and >8 hours were reported by 47.9%, 25.6%, 17.5%, 4.8% and 4.2% respondents, respectively. Mask replacement frequency was essentially (56.5%) once/day (Figure 1). Pre-epidemic skin issues included sensitive skin, acne, seborrheic dermatitis, allergy and acne. A total of 26.6% respondents considered that their skin status had worsened compared to the pre-epidemic period. Compared with cotton masks, after adjusting for confounding factors, surgical and sponge masks were associated with a 2.40 times and a 3.06 times increase in odds of facial skin problems, respectively (Figure 2).

There was a positive correlation between increased mask wearing duration and the advent of facial skin problems (e.g., acne/comedones, redness/telangiectasis, itching/pain, dryness/xerosis) (Figure 3). Taking 2 hours of daily wear as reference and after adjusting for age, gender, region, hours of sleep, face-washing method, and face-washing frequency, mask wearing over 8 hours/day was associated with a 1.51 times increase in odds of worse skin condition.

Whereas local tolerance symptoms associated with mask wearing were described predominantly for facial skin (itching, burning, redness, desquamation), there were also reports of nasal and respiratory symptoms (nasal/throat itching, sneezing, rhinorrhea, asthma), and of ocular symptoms (prickles, lacrimation, swelling), all being positively correlated with mask wearing duration (Figure 4). There was no relationship between frequency of mask replacement and severity of facial skin problems or sensitive symptoms.

The analysis of facial cleansing/moisturizing habits revealed that increasing the cleansing frequency (>once/day) is associated with worsening of skin condition. Applying a moisturizing product has a beneficial effect, a cream being more effective than a lotion or spray water.

DISCUSSION

This survey confirms a relationship between mask wearing and skin damage, the duration of protective equipment’s wearing being the most common risk factor. This survey also shows that mask wearing duration is positively correlated with skin, ocular and respiratory problems, and that increasing facial cleansing frequency (>once/day) is associated with worsening of skin condition.

