

Background

- Due to the public health risk associated with SARS-CoV-2 (COVID-19) infection; use of face masks has been recommended to protect against viral spread.
- Previously, increased utilization of face masks to reduce spread of the viral illness, has been associated with numerous facial dermatoses and adverse reactions.
- However, adverse facial reactions from the utilization of masks in the general public are poorly characterized in literature.

Objective

- To analyze and categorize literature reporting adverse facial reactions associated with use of face masks during COVID-19 pandemic.

Methods

- In October 2020, PubMed and Cochrane databases were searched for the following search terms: masks AND skin reactions, facial dermatosis, rash, acne, atopic dermatitis, rosacea, OR seborrheic dermatitis.
- English articles with humans published in the last 10 years were included.
- Systematic reviews with or without meta-analysis, narrative reviews, and articles with irretrievable records were excluded.

Results

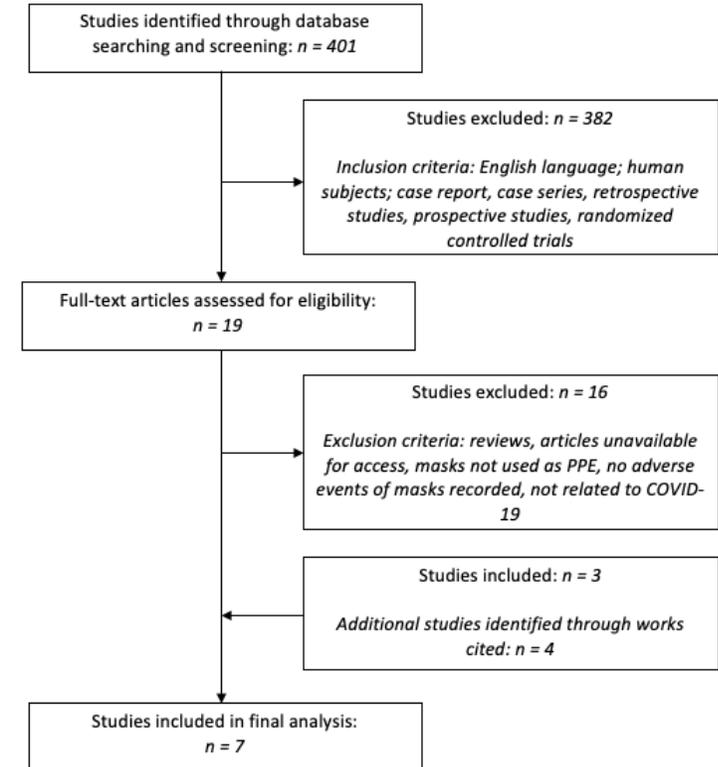
Reported facial skin reactions associated with COVID-19 face masks

Adverse Skin Reaction (Total 954)	No (%)
Itch	370 (38.8%)
Indentation/ear pain	102 (10.7%)
Discomfort	90 (9.4%)
Redness or erythema	72 (7.5%)
Dryness	62 (6.5%)
Rash	60 (6.3%)
Scarring	42 (4.4%)
Desquamation ^a	22 (2.3%)
Pain ^b	19 (2.0%)
Burning	19 (2.0%)
Wheals	7 (0.7%)
Numbness	5 (0.5%)
Swelling	5 (0.5%)
Greasy skin	4 (0.04%)
Allergic contact dermatitis	2 (0.2%)
Acne	1 (0.1%)
Koebner phenomenon	1 (0.1%)
Skin condition exacerbation	
Acne exacerbation	44 (4.6%)
Rosacea exacerbation	14 (1.5%)
Seborrheic dermatitis exacerbation	9 (0.9%)
Allergic dermatitis exacerbation	1 (0.1%)
Eczema exacerbation	1 (0.1%)
Unexplained facial dermatitis exacerbation	1 (0.1%)
Folliculitis exacerbation	1 (0.1%)

No., number

^a includes damage

^b includes pinching, prickling, and stinging



Discussion/Conclusion

- Our systematic review revealed wearing face masks to protect from COVID-19 increases risk of facial dermatosis and adverse skin reactions in the general population.
- Dermatologists and patients should monitor for skin reactions or flares of underlying skin conditions from face masks.

Disclosure

Dr. Wu is or has been an investigator, consultant, or speaker for AbbVie, Amgen, Arcutis, Aristeia Therapeutics, Boehringer Ingelheim, Bristol-Myers Squibb, Dermavant, Dr. Reddy's Laboratories, Eli Lilly, Galderma, Janssen, LEO Pharma, Mindera, Novartis, Regeneron, Sanofi Genzyme, Solius, Sun Pharmaceutical, UCB, Valeant Pharmaceuticals North America LLC, and Zerigo Health.