

# Topical treatment of skin rashes in monkeypox owing to a jelly containing Mediterranean seaosings in tragacanth and arrowroot

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Sir,

Monkeypox is a viral zoonosis (a virus transmitted to humans from animals) with symptoms similar to those seen in the past in smallpox patients, although it is clinically less severe. With the eradication of smallpox in 1980 and subsequent cessation of smallpox vaccination, monkeypox has emerged as the most important orthopoxvirus for public health. Monkeypox primarily occurs in central and west Africa, often in proximity to tropical rainforests, and has been increasingly appearing in urban areas. Animal hosts include a range of rodents and non-human primates [1].

Human monkeypox was first identified in humans in 1970 in the Democratic Republic of the Congo in a 9-month-old boy in a region where smallpox had been eliminated in 1968. Since then, most cases have been reported from rural, rainforest regions of the Congo Basin, particularly in the Democratic Republic of the Congo and human cases have increasingly been reported from across Central and West Africa.

Since 1970, human cases of monkeypox have been reported in 11 African countries: Benin, Cameroon, the Central African Republic, the Democratic Republic of the Congo, Gabon, Cote d'Ivoire, Liberia, Nigeria, the Republic of the Congo, Sierra Leone and South Sudan. The true burden of monkeypox is not known. For example, in 1996–97, an outbreak was reported in the Democratic Republic of the Congo with a lower case fatality ratio and a higher attack rate than usual.

A concurrent outbreak of chickenpox (caused by the varicella virus, which is not an orthopoxvirus) and monkeypox was found, which could explain real or apparent changes in transmission dynamics in this case. Since 2017, Nigeria has experienced a large outbreak, with over 500 suspected cases and over 200 confirmed cases and a case fatality ratio of approximately 3%. Cases continue to be reported until today.

Monkeypox is a disease of global public health importance as it not only affects countries in west and central Africa, but the rest of the world. In 2003, the first monkeypox outbreak outside of Africa was in the United States of America and was linked to contact with infected pet prairie dogs. These pets had been housed with Gambian pouched rats and dormice that had been imported into the country from Ghana. This outbreak led to over 70 cases of monkeypox in the U.S. Monkeypox has also been reported in travelers from Nigeria to Israel in September 2018, to the United Kingdom in September 2018, December 2019, May 2021 and May 2022, to Singapore in May 2019, and to the United States of America in July and November 2021. In May 2022, multiple cases of monkeypox were identified in several non-endemic countries. Studies are currently underway to further understand the epidemiology, sources of infection, and transmission patterns.

Animal-to-human (zoonotic) transmission can occur from direct contact with the blood, bodily fluids, or cutaneous or mucosal lesions of infected animals. In

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Africa, evidence of monkeypox virus infection has been found in many animals including rope squirrels, tree squirrels, Gambian pouched rats, dormice, different species of monkeys and others. The natural reservoir of monkeypox has not yet been identified, though rodents are the most likely. Eating inadequately cooked meat and other animal products of infected animals is a possible risk factor. People living in or near forested areas may have indirect or low-level exposure to infected animals.

Human-to-human transmission can result from close contact with respiratory secretions, skin lesions of an infected person or recently contaminated objects. Transmission via droplet respiratory particles usually requires prolonged face-to-face contact, which puts health workers, household members and other close contacts of active cases at greater risk.

The incubation period (interval from infection to onset of symptoms) of monkeypox is usually from 6 to 13 days but can range from 5 to 21 days.

The infection can be divided into two periods: The invasion period (lasts between 0–5 days) characterized by fever, intense headache, lymphadenopathy (swelling of the lymph nodes), back pain, myalgia (muscle aches) and intense asthenia (lack of energy). Lymphadenopathy is a distinctive feature of monkeypox compared to other diseases that may initially appear similar (chickenpox, measles, smallpox) the skin eruption usually begins within 1–3 days of appearance of fever. The rash tends to be more concentrated on the face and extremities rather than on the trunk. It affects the face (in 95% of cases), and palms of the hands and soles of the feet (in 75% of cases). Also affected are oral mucous membranes (in 70% of cases), genitalia (30%), and conjunctivae (20%), as well as the cornea. The rash evolves sequentially from macules (lesions with a flat base) to papules (slightly raised firm lesions), vesicles (lesions filled with clear fluid), pustules (lesions filled with yellowish fluid), and crusts which dry up and fall off. The number of lesions varies from a few to several thousand. In severe cases, lesions can coalesce until large sections of skin slough off.

Since the start of the monkeypox outbreak and as of 6 September 2022, 18 844 confirmed cases of monkeypox (MPX) have been reported from 29 EU/EEA countries. In total, 47 cases have been reported from three Western Balkan countries and Turkey. The

five countries reporting most cases since the start of the outbreak are Spain (6 749), France (3 645), Germany (3 505), Netherlands (1 172) and Portugal (789). Two deaths have been reported from Spain in July 2022, and one death from Belgium in August 2022. The highest cumulative notification rates have been reported in Spain, Luxembourg and Portugal [2].

The AA have had the chance to encounter a man (Caucasian, 34 y. old) just coming back from a business trip in Côte d'Ivoire who had had a fever and great headache during the return journey, and one day after having landed, presented severe vesicles and pustules in the face and groins.

Before he made up his mind to be hospitalized, being sure that the malaise was not due to the notorious and deplorable monkeypox, he remained one week at home controlling the fever according to the famous text "Methodus curandi febres" by Dr. Sydenham, alias the British Hyppocras (1685), idest drinking incessantly frozen teas made with Hybiscus sabdariffa and some drops of HP sauce and inhaling or assuming fermented Opium (or natural and/or synthetic derivatives).

During this week the AA decided to prepare a biomedical salbe in order to treat the serious skin rashes.

The recipe of this salbe is based on various Mediterranean seasonings and spices, as sage, fennel, rosemary and thyme.

Effectively Stanojevic and Comic in 2010 asserted that The aqueous extract of *S. officinalis* has been shown to have antioxidant and antiviral effects. In a study, it was observed that after drinking sage tea (common sage) for 2 weeks, the liver antioxidant status improved [3,4].

As far as fennel is concerned some researchers affirmed that *Foeniculum vulgare* reveals magnificent virostatic actions [5-7].

Even rosemary shows excellent antiviral properties [8] and no less than thyme presents virucidal functions, really extraordinary [9-11].

The salbe is prepared making herb parts and seeds soak overnight in cold water, therefore filtered and the coloured water must be jellified by 1% tragacanth gum and 0.5% arrowroot starch (extracted from *Maranta arundinacea*, and/or *Zamia integrifolia*).

The crucial efficacy of these potent Mediterranean plants yields to an abatement and assuagement of the evidence and noise of the skin rushes in the volunteer in 6-7 days (he never ceased to assume opioids, even if taking tramadol or codein pills every 8 hours).

Anyway the volunteer finally desired to be hospitalized, conscious that Italian Health Service is not up to standards and veray mediocre.

### Statement of Human and Animal Rights

All the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the 2008 revision of the Declaration of Helsinki of 1975.

### Statement of Informed Consent

Informed consent for participation in this study was obtained from all patients.

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