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## Correspondence

## Salivary transmission of monkeypox virus-A potential possibility that needs careful management? – Correspondence

Dear Editor,

Monkeypox virus is an orthopoxvirus and a close cousin of the variola virus, a zoonotic infection akin to smallpox. Some of the world's poorest and most marginalized people have been hit hardest by this disease since it was first documented in central Africa in 1970. Fever, rash, and lymphadenopathy are hallmarks of the clinical condition. Monkeypox may lead to secondary bacterial infections, as well as pneumonitis, encephalitis, potentially blinding keratitis, and other issues [1]. At the time of writing this letter, according to centres for disease control and prevention, 53,027 cases are reported around the globe.

The death rates that have been published have a high potential for case ascertainment bias and show a wide range of variations. The viral lineage circulating in the Congo Basin seems to be linked with increased virulence, and outbreaks there have been recorded with case fatality rates ranging from 1 to 10% during the last six years [2]. Monkeypox is easily spread from person to person, and its many modes of human-to-human, or nosocomial and home transmission have been well characterized. Human-to-human transmission pathways, however, have traditionally been less widely recognized. The incidence of secondary attacks in unvaccinated household contacts was estimated to be about 8% (range 0–11%) based on a pooled estimate from a systematic study. The clinical relevance of persistent viremia and skin shedding is unknown, and in vivo viral kinetics and infectivity are poorly understood [3]. Clinical signs and symptoms are confirmed and guided by viral samples and laboratory analysis. It is recommended to obtain a sample of blood, urine, a swab of a persistent lesion or lesion fluid, and a swab from the upper respiratory tract every 48–72 hours until two negative findings are recorded from each anatomical location. These findings, together with absence of any new or active mucosal lesions and complete desquamation of all previously visible lesions, formed the basis for releasing patients back into the community [4].

Researchers have established the presence of monkeypox virus in the epithelial linings of upper respiratory tracts [5]. Nasopharyngeal swabs demonstrated viral presence. This opens up the likelihood of viral presence in oronasal and oropharyngeal linings also. Since the oro-palatopharyngeal pathway is extensively inhabited by mucinous minor salivary glands, the risk of transmission in saliva can be substantial. There is also a possibility of a virus getting entrapped in deep periodontal pockets where they may lay dormant.

Medical literature demonstrating monkeypox in saliva and periodontal pockets is unclear to date. Nevertheless, this possibility should be thoroughly explored, as the isolation of monkeypox virus in pharyngeal swabs can lead to possible oral transport in patients with ulcers, leukoplakia, cancer, and other premalignant conditions. This factor should also be seriously considered in understanding the disease manifestation of monkeypox virus. There is also a strong possibility of

cross-contamination through shedding's present in toothbrushes and during dental procedures [6]. The viral presence in toothbrushes has not been reported yet and needs to be investigated. Thus, the possibility of monkeypox virus transmission in the Oro-facial region is significant and must be considered for effective management and prevention of this viral infestation.

### Provenance and peer review

Not commissioned, internally peer-reviewed.

### International journal of surgery author disclosure form

The following additional information is required for submission. Please note that failure to respond to these questions/statements will mean your submission will be returned. If you have nothing to declare in any of these categories, then this should be stated.

### Sources of funding

NIL.

### Ethical approval

Not applicable.

### Research registration Unique Identifying Number (UIN)

The World Medical Association's Declaration of Helsinki 2013 states in article 35: 'Every research study involving human subjects must be registered in a publicly accessible database before recruitment of the first subject'. Editors of IJS require that all types of research studies involving human participants should be registered prospectively and failing that retrospectively. There are many places to register your research, and you can choose which is the most suitable for your needs:

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Not applicable.

#### Author contribution

Please specify the contribution of each author to the paper, e.g. study design, data collections, data analysis, writing. Others, who have contributed in other ways should be listed as contributors.

Dr. DG, Dr. PG and DR. SS devised the concept, performed the literature search and drafted the letter.

#### Guarantor

The Guarantor is the one or more people who accept full responsibility for the work and/or the conduct of the study, had access to the data, and controlled the decision to publish. Please note that providing a guarantor is compulsory.

Not applicable.

#### Data statement

The correspondence is based exclusively on resources that are publicly available on the internet and duly cited in the “References” section.

No primary data was generated and reported in this manuscript. Therefore, data has not become available to any academic repository.

#### Declaration of competing interest

No conflict of interest.

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