



The role of primary eye health care in controlling the surge of monkeypox

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KEYWORDS

monkey pox, vaccinations, transmission, communicable disease, primary healthcare, conjunctivites, blepharitides

Dear Editor

Monkeypox is a viral zoonotic infection associated with an acute febrile rash. It is caused by the monkeypox virus of the *Orthopoxvirus* genus, which has a potential for human-to-human spread. Recently, it has attracted global attention due to its emergence in non-endemic regions, including Europe [1, 2]. This emerging strain of the monkeypox virus is most likely a member of the West African clade, which causes a milder form of the disease and has a lower mortality rate than the Congo Basin clade [1, 3]. Ring vaccination of close contacts is a feasible method to contain its spread, whereby close contacts of infected individuals are traced and vaccinated to confine routes of transmission [3].

Early symptoms are non-specific and include fever, myalgia, headache, fatigue, and lymphadenopathy. This is followed by the appearance of mucosal lesions on the mouth and subsequent fluid-filled skin lesions on the face and extremities. These lesions go through macular, papular, vesicular, and pustular phases for 2–4 weeks. Following the pustular phase, which lasts 5–7 days, crusts form and desquamate at around days 7–14. Finally, approximately 3–4 weeks after the onset of initial symptoms, the disease resolves in most cases. Once all the scabs have fallen off, the patient is considered non-infectious [3, 4].

Ocular manifestations, such as purulent conjunctivitis or blepharitis, which are easily detectable by primary eye care workers, have been reported in animal models [5] and humans [6] (Figure 1). The risk of mortality [2] and ocular morbidities, such as corneal scarring caused by conjunctivitis with potentially subsequent corneal blindness, highlight the importance of early diagnosis and treatment of both systemic and ocular signs (Table 1).

Therefore, I suggest that three components of primary eye health care [10] could be applied to confine the surge of this sight- and life-threatening infectious disease. These components [10] may be implemented to confine the surge of this infectious disease, as follows:

Component a. Health care professionals working in primary care [10] and delivering essential eye care services could be trained to detect and report suspected cases early in the clinical course. The immediate notification of suspected cases to public health authorities could play a pivotal role in the identification of patients during the infectious period. This is a low-cost yet very effective strategy to confine the spread of this virus in the community. However, eye care professionals should not overlook the importance of personal protection protocols while delivering care. Gowns, gloves, eye protection, surgical masks, N95 or similar respirators,

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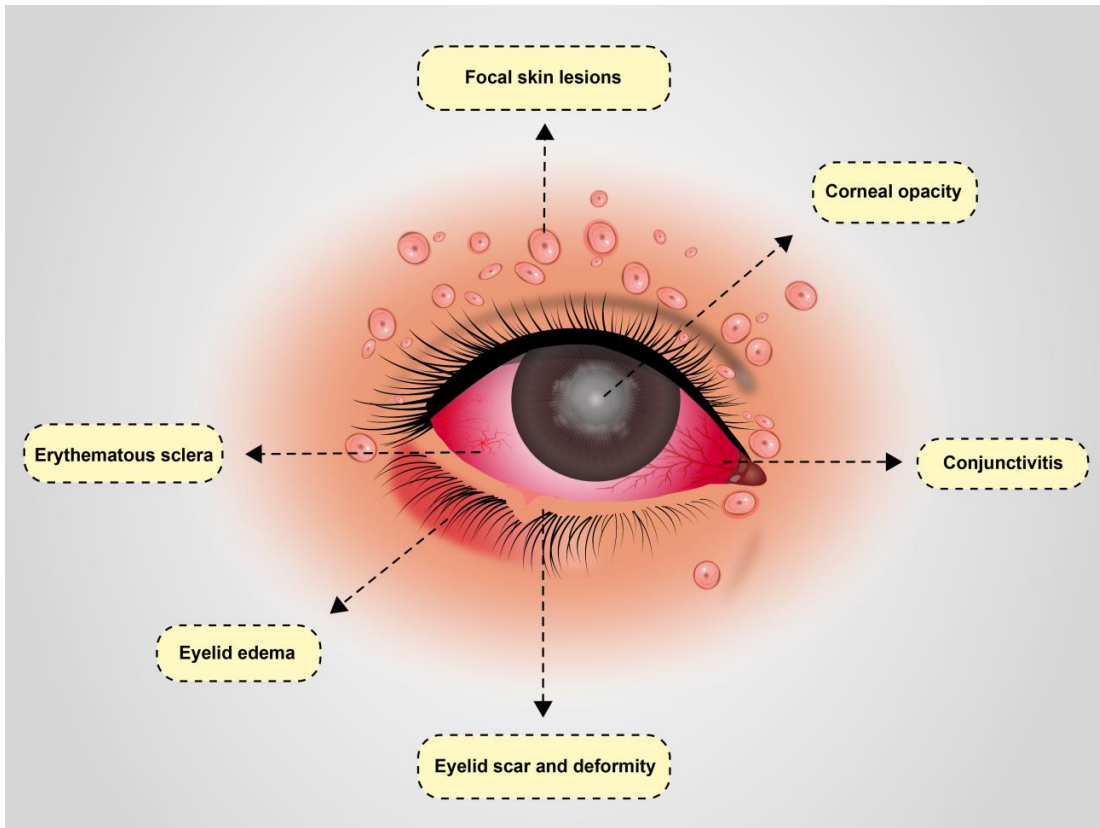


Figure 1. Schematic summary of the ocular signs of monkeypox.

1. Systemic and ocular symptoms and signs of monkeypox

Systemic symptoms and signs [7]	Ocular symptoms and signs [8, 9]
Fever	Focal lesions on the conjunctiva and eyelid margins
Severe headache	Conjunctivitis
Lymphadenopathy	Erythematous sclera
Back pain	Various degrees of corneal opacities
Myalgia	Edema of the eyelids
Intense asthenia	Scars and deformity of the eyelids
Skin eruption on the: - Face 95% - Extremities: palms of the hands and soles of the feet 75% - Oral mucous membranes 70% - Genitalia 30%	Blindness

Note: % refers to percentage of patients with monkeypox infection who experience this sign.

and other precautions for airborne infections should be used when examining individuals with a suspected monkeypox infection.

Component b. Considering the second component of primary eye health care, “multisectoral policy and action,” [10] undertaking policies to enhance social vigilance could help in the early detection of monkeypox infection. Furthermore, policies could aim to reduce the risk of transmission through access to sanitation or the control of animal reservoirs, if appropriate and feasible [11], along with improving access to eye care by providing better public transport.

Component c. The third component of primary eye health care comprises “empowered people and communities [10].” The education of the public through the mass media about the symptoms and signs of the disease, especially an explanation of the ocular manifestation using lay language, could increase public awareness about this disease and allow rapid case notification and prompt follow-up and treatment. This strategy, in turn, would reduce both the irreversible complications of the disease and the further spread of monkeypox.

Finally, several strategies that reduce the risk of contracting coronaviruses, such as good hand hygiene, social distancing, mask-wearing, and surface disinfection [12,13], also reduce the risk of contracting monkeypox. Additionally, there is an urgent need to raise awareness about monkeypox and undertake extensive contact tracing and isolation and supportive care to reduce further onwards transmission.

ETHICAL DECLARATIONS

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Conflict of interests: None

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