STOMATOLOGICAL AND MAXILLO-FACIAL FEATURES OF MPOX: REPORT OF THE FIRST CONFIRMED CASE IN IVORY COAST

MANIFESTATIONS STOMATOLOGIQUES ET MAXILLO-FACIALES DE LA VARIOLE DU SINGE : RAPPORT DU PREMIER CAS CONFIRME EN COTE D'IVOIRE

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ABSTRACT

Aim: The authors report the stomatological features of monkeypox (mpox) observed in the first confirmed case of mpox in Côte d'Ivoire.

Observation: It is a patient aged 46 with a confirmed PCR diagnosis of mpox. Clinical examination noted a varioliform rash particularly marked on the face and associated with cervical lymphadenopathy. The lesions also occupied the oral cavity and oropharynx with a characteristic enanthema. This condition required a correct management based on local care, correct analgesia and local anesthesia which allows a quick return to a normal diet.

Conclusion: Mpox is an emerging disease in a global outbreak. Its maxillofacial features and their management are poorly described in the literature. The skin rash of mpox is characteristic, particularly marked on the face and constantly associated with cervical lymphadenopathy. During an epidemic, any varioliform lesion should lead to the diagnosis of mpox and the protocol in force in the country concerned must be applied.

Key words: Mpox, monkeypox, Enanthema, Endobuccal pustules, Case report

RÉSUMÉ

Objectif: Les auteurs rapportent les manifestations stomatologiques observées chez le premier cas confirmé de variole du singe(mpox) en Côte d'Ivoire.

Observation: Il s'agit d'un patient âgé de 46 ans dont le diagnostic de mpox a été confirmé par PCR. L›examen clinique a noté une éruption varioliforme particulièrement marquée au niveau du visage et associée à des adénopathies cervicales. Les lésions occupaient également la cavité buccale et l'oropharynx avec un énanthème caractéristique. Une prise en charge correcte basée sur des soins locaux, une analgésie correcte et une anesthésie locale ont permis un retour rapide à une alimentation normale.

Conclusion: Le Mpox est une maladie émergente qui sévit dans le monde entier. Ses manifestations faciales et leur prise en charge sont peu décrites dans la littérature. L'éruption cutanée de mpox est caractéristique, particulièrement marquée sur le visage et constamment associée à une lymphadénopathie cervicale. Lors d'une épidémie, toute lésion varioliforme doit faire évoquer le diagnostic de variole et le protocole en vigueur dans le pays concerné doit être appliqué.

Mots clés : Mpox, Variole du singe, Enanthème, Pustules endobuccales, Cas clinique

INTRODUCTION

Monkey pox (mpox) is an emerging disease, discovered in 1958. It is a zoonosis whose main reservoir was initially monkeys [1]. Human-to-human transmission is possible [2]. It experienced a strong global epidemic outbreak in 2022. Since July 2022, smallpox has been considered as global health emergency by the WHO. In September 2022, there were more than 50,000 monkeypox virus positive cases worldwide [1,3]. The maxillofacial features of mpox are poorly described in the litterature [2]. In Côte d'Ivoire, the first confirmed

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case of this epidemic was reported in August 2022. The aim of this work is to describe through this clinical case, the stomatological and maxillofacial features observed during monkey pox and to offer treatment for maxillofacial lesions.

CLINICAL CASE

It is a male patient aged 46, not vaccinated against smallpox, agricultural tracker and chronic alcoholic. He had contact 7 days earlier with his sick brother in Liberia. The diagnosis of mpox was confirmed in his brother, by PCR test 48 hours before the patient's admission. He was transferred to the Infectious and Tropical Diseases department in Abidjan when he developed a generalized mucocutaneous rash in a febrile context.

On admission, the temperature was 39°C. We noticed a generalized maculopustular rash all over the body, with conjunctival, plantar, palmar and genital involvement. The rash was particularly marked on the face and submandibular regions (Figure 1).

Figure 1: Disseminated vesicular-papular rash on the face

The presence of lesions of various ages was noted. Some pustules were ruptured with flowing pus. Others were complete, not broken. Some papules were excoriated, many with crusted lesions. Examination of the cervical lymphatic areas revealed multiple painful, submandibular and bilateral adenopathies which measured about 1 cm. In the mouth, there was an enanthema made up of ruptured, painful pustules and papules. The lesions occupied the internal faces of the cheeks, the tongue (dorsal and ventral faces), the floor of the mouth, the palate, the veil, the pharyngeal tonsilsand they extended to the posterior wall of the oropharynx. The ruptured endobuccal pustules were responsible of red and painful mucosal ulcerations (Figure 2).

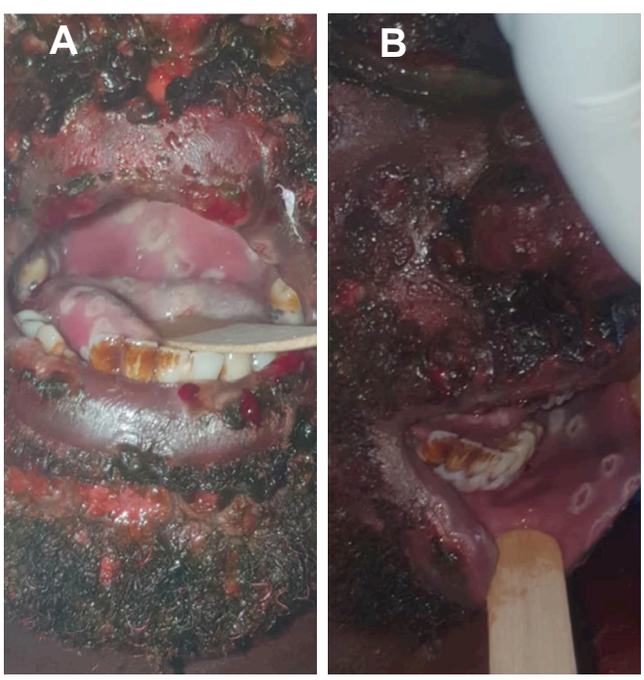

Figure 2A: Rounded exulcerated lesions located on the dorsal surface of the tongue, the pharyngeal tonsils and the posterior wall of the pharynx

Figure 2B: Rounded exulcerated lesions located on the gums, the internal face of the cheek and the left labial commissure.

Oral lesions considerably hampered swallowing and the patient's comfort. PCR examination of fluid in the skin blisters confirmed the diagnosis of mpox. The treatment essentially consisted of the administration of Acyclovir 500mg every 8 hours by intravenous route, Piperacillin-Tazobactam 4.5g every 8 hours by intravenous route, Vancomycin 1g every 12 hours by intravenous route, Albumin 10g per day in perfusion, Vitamin B (500 mg per day of Vitamin B1 and 250 mg per day of Vitamin B6 in perfusion with 250cc of isotonic glucose serum), corticosteroid therapy (Methylprednisolone 120 mg per day by intravenous injection per day for 7 days), and local skin care by application of aqueous eosin on the skin lesions in order to prevent their impetigination.

Hygiene of the oral cavity was ensured by multiple daily mouthwashes with povidone iodine. The administration of Acyclocir was rapidly interrupted (after 24 hours of administration) on account of its inefficiency in the management of mpox. The application of lidocaine oral gel was carried out at least 6 times during the day and twenty minutes before meals (liquid and pasty food) in order to reduce intraoral pain during feeding. The evolution was favorable after 15 days of treatment with healing of the intraoral lesions and a return to a normal diet after 12 days. The patient was declared cured after crust samples no longer revealed the mpox virus on PCR.

DISCUSSION

In this clinical case, the patient was seen in the state phase and the mucocutaneous lesions were varioliform. The diagnosis of mpox was evoked because of the epidemiological context and the eradication of human smallpox. In addition, the presence of cervical lymphadenopathy observed in the patient is not classic in human smallpox but characteristic of mpox [4]. The eruption in both conditions is almost similar [5]. Only the PCR test can make the difference between the two viruses [3]. The incubation of mpox lasts between 7 and 14 days with extremes of 5 and 21 days. In the state phase, the eruption can start in the oral cavity and the oropharynx. So the stomatologist can be the first practitioner to be in contact with the patient [2,4]. This therefore implies for the practitioner to use the same precautions as those used in the primary prevention of airborne diseases by Pflugge droplets such as Covid-19 [2]. Oral mpox lesions are poorly described in the literature [6].

In case of suspicion, the practitioner should refer to the health protocol for notification of epidemics in the country concerned. Monkeypox is a public health emergency of international concern and reporting of cases to health authorities is therefore routine [7]. Other modes of transmission are possible. These are sexual intercourse, skin-to-skin, mouth-to-mouth and mouth-to-skin contact with a sick person [5]. The sequence of evolution of mucocutaneous lesions is well known. The macules turn into papules, then into vesicles and finally into pustules. Several lesions of various ages may coexist. The lesions are disseminated all over the body with predominance on the face and palmar and plantar extremities. All the skin as well as the genital, oral and oropharyngeal mucous membranes are concerned [5,6]. Rupture of intraoral vesicles and pustules leaves superficial and painful ulcerations. These painful ulcerations make oral hygiene and eating difficult and more or less considerably interfere with the patient's comfort [4]. The use of a nasogastric tube for food can be an interesting solution if the use of local anesthetics can't calm the pain. The occurrence of a maculopapular and/or pustular endobuccal rash in the context of an epidemic, health watch or epidemiological surveillance should systematically evoke mpox and lead to the adoption of the precautions and isolation measures in force [2,4,6]. No studies demonstrating the efficiency of antivirals in mpox are available. Clinical trials to assess their efficiency in mpox patients are currently underway. Antivirals such as Tecovirimat, Cidofovir and Brincidofovir are, however, used in treatment either because they are active in smallpox, or because they are effective in vitro or in animals. Acyclovir is ineffective in the treatment of smallpox. [8-10]. The initial isolated endobuccal lesions, preceding the generalized eruption, can mislead the diagnosis [6]. The use of antiseptic mouthwashes containing alcohol can be painful. In this clinical case, povidone iodine was used alone in the patient for the hygiene of the oral cavity. Oral brushing could only be carried out at the start of healing when the painful phenomena had considerably regressed. The application of lidocaine oral gel on the oral mucosa several times a day considerably reduced pain and facilitated a rapid return to oral feeding. The vast majority of mpox cases reported worldwide since the 2022 outbreak are in men who have sex with men [11]. Without being able to explain it for the moment, monkeypox seems to affect more men than women. The human smallpox vaccine can confer cross-immunity against mpox, at around 85%. However, it has not been administered since 1980, when human smallpox was eradicated. Post-exposure vaccination against monkeypox, especially for at-risk individuals such as healthcare workers, is available in some countries. It is performed between 4 and 14 days after contact with a sick subject [2,12].

CONCLUSION

Mpox is an emerging disease which experienced a strong global epidemic outbreak in 2022.Dentists and maxillofacial surgeons are rarely confronted with it in their activity. Oral manifestations of mpox can be inaugural and bring specialists into first contact with patients. During an epidemic, any varioliform lesion should lead to the diagnosis of mpox and the protocol in force in the country concerned must be applied in order to avoid further contamination.

Compliance with ethical standards

Conflict of interest: The authors stated that there is no conflict of interest.

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