Auricular manifestation of Mpox (monkeypox)

George Williams, Carolina Watters, Natalie Watson

SUMMARY
This case discusses a man in his 20s, referred to the ear, nose and throat department with a suspected ear lobe abscess. He presented with a 5-day history of worsening ear pain, fever and localised pustules. An in-depth history showed a relevant sexual history and medical history. Initial investigations showed no light on the cause of the infection. A second presentation with further generalised symptoms, including further outbreaks of pustules, led to PCR testing, confirming the presence of mpox (monkeypox) virus. He was admitted to the infectious disease ward where he made a good recovery and was supported until discharge.

BACKGROUND
Mpox (monkeypox) is an infectious viral disease that has been present in humans since 1970, it is a viral disease originating from its etymological primate, first diagnosed in laboratory monkeys in the late 1950s.1 Sporadic cases have been occurring in central and west Africa over the last 50 years, while being endemic in the Democratic Republic of the Congo. In 2021, Public Health Wales reported three cases from a single household by Public Health Wales, the first known cases in the UK of recent times. During 2022, the UK Health Security Agency confirmed that there was an ongoing outbreak of mpox (monkeypox), with increasing case numbers found in the UK.2 Mpox (Monkeypox) is transmitted between individuals via skin contact with the disease’s associated blisters, contact with contaminated items (ie, clothing, bedding and personal items) or via droplets spread by coughing or sneezing. Recurrence of disease is rare secondary to protective immunity resulting from primary infection.

We report a case of an atypical presentation of mpox (monkeypox), presenting with auricular erythema, pain and papules. Cases of mpox (monkeypox) are increasing with a variety of initial symptoms, meaning health professionals need to be aware of different manifestations of this disease so diagnosis can be made early.

CASE PRESENTATION
We present the case of a man in his 20s presenting with unilateral ear pain, erythema and lobular papules. The patient first noticed a change to his skin between his ear lobe and facial skin, described as a flat red area, which further progressed into a crusting lesion. This proceeded to spread to the ear lobe, before papules arose, leading to the ear lobe becoming erythematous, painful and swollen (figure 1). Other symptoms included one episode of rigours, general myalgia and fever. A short course of fluoroquinolone given by the general practitioner (GP) had shown no improvement in symptoms and the patient attended the emergency department (ED). He was referred to the ear, nose and throat (ENT) department for aspiration of a potential abscess caused by an unknown pathogen. Examination revealed the aforementioned signs, however, there was no fluctuance consistent with an abscess. Needle aspiration was attempted for completeness from the lobular swelling; however, no fluid could be removed. A swab was taken for microscopy and culture and the patient was discharged with oral co-amoxiclav and booked for review 48 hours later in the ENT emergency clinic. The working diagnosis was that of a staphylococcal skin infection.

In the intervening time, the patient represented to the ED with worsening otalgia. At this point, he was shown to have similar pustules over his body, including arms, legs and forehead. Subsequent additional history taking ascertained that the patient had recently engaged in unprotected sexual intercourse with multiple male partners.

The patient was admitted to hospital, during which time, pustules appeared on his chin and behind his left ear. Intravenous antibiotics were administered for a possible ear lobe abscess, however, further ENT review deemed this not to be an abscess, but soft tissue swelling secondary to the localised pustules.

After two further days of an inpatient stay, the ear pain, swelling, surrounding erythema and pustules were reported to have improved, and the patient was deemed fit for discharge from the infectious diseases unit.

INVESTIGATIONS
A full set of routine blood samples were taken from the patient in both attendances to the ED department showing a mildly raised inflammatory profile (C reactive protein 36 mg/L; reference range <9 mg/L, white cell count 7.9×10⁹/L; reference range <7.5×10⁹/L). Ear swabs showed heavy growth of skin flora, however, were not sent for mpox (monkeypox) viral testing when initially taken. Further diagnostic swabs of pustules on the right arm and back were sent for viral PCR testing and returned positive for mpox (monkeypox), confirming the diagnosis.

DIFFERENTIAL DIAGNOSIS
On initial presentation, the ear pustules, erythema, crusting and swelling were the only sign of infection present in the patient, no further papules being present on the skin elsewhere. The main initial differential diagnosis was a staphylococcus skin infection given its appearance.
Case report

After the second presentation with further papules and pustules spreading over the patient’s body, in addition to relevant risk factors, it was agreed that mpox (monkeypox) should be a differential diagnosis. This was confirmed by pustular swabs testing positive for mpox (monkeypox).

TREATMENT
Treatment for mpox (monkeypox) in this patient was supportive management, however, intravenous antibiotics were initially given due to the possibility of a pinna cellulitis.

Due to its viral nature, mpox (monkeypox) is self-limiting and will resolve with time, usually between 5 and 21 days, however, severely affected patients may need medical support. Complications requiring medical treatment include rectal pain, odynophagia, penile oedema and abscesses. Analgesia, intravenous fluids, antivirals and antibiotics are the mainstay of treatment in those requiring admission.

OUTCOME AND FOLLOW-UP
The patient was discharged 4 days after admission, with no routine follow-up required. On further telephone review 3 days after discharge, the patient’s aural symptoms had improved, pain and erythema decreasing significantly.

DISCUSSION
Mpox (monkeypox) is known to be a rare disease, however, in the UK and worldwide, case numbers have significantly increased and consequently an awareness of how it may present is important. Individuals typically present with papules on their arms, legs or torso, and general infective symptoms, including rigours, fever and malaise. This case shows that atypical symptoms or signs may appear primarily and be mistaken for other pathologies. It is important that a disease becomes more prevalent in an area where little was previously known about the disease, clinicians should keep an open mind into the potential signs and symptoms while taking an in-depth history, including personal and sexual history. More atypical presentations of mpox (monkeypox) may start to present to medical departments around the country, and in doing so, it is important to continue learning about emerging infectious diseases, akin to our COVID-19 disease response.

Patel et al have shown a variety of initial presentations of mpox (monkeypox) including mucocutaneous lesions commonly on the genitals and perianal area, in addition to presentations on the nose and hands. There currently are no UK-based case reports showing aural involvement of mpox (monkeypox), however, this case shows that initial presentations may be found around the ear.

Figure 1  Pustules present on ear.

Learning points

► Mpox (Monkeypox) is a disease, which may present atypically, emphasising the importance of keeping an open mind of diagnoses when confronted with unusual signs and symptoms.

► Clinicians need to keep up to date with emerging diseases and their presentations as different specialties may be referred patients with atypical symptoms.

► Education and guidance are urgently needed to help guide diagnosis and management of individuals with suspected mpox (monkeypox).

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

ORCID ID
George Williams http://orcid.org/0000-0003-3054-6525

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