

Clinical Records

Orf of the pinna

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Abstract

A case of orf affecting the pinna is discussed. This is an unusual presentation of an infection that is common in farming communities.

At the initial presentation the diagnosis was not suspected, the management therefore was inappropriate and probably gave rise to the secondary infection that ensued. The history described is classical.

Orf affecting the external auditory canal has been reported once, but orf affecting the pinna has not been described before.

Introduction

Orf (from the Norse word *hrufa* meaning a scab or boil) is a contagious pustular dermatitis caused by a poxvirus affecting mainly sheep and goats, but is transmissible to humans. The infection is commonest during the spring and summer, coincident with the lambing season, producing a characteristic lesion usually on the fingers. It is an occupations hazard of farmers, abattoir workers, veterinary surgeons and those in close contact with lambs.

Case report

A 39-year-old woman who kept sheep presented to her General Practitioner with a painless erythematous nodule on her left tragus. The lesion was incised but nothing was drained. Following this procedure the lesion became extremely painful, increased in size, developed surrounding erythema and occluded the external auditory meatus (Fig. 1a,b). She was referred to ENT Casualty and then transferred to the Infectious Diseases Unit for further management.

It transpired that a few days after she first noticed the nodule on her tragus, she developed a similar lesion on her finger (Fig. 1c). Her daughter also developed a lesion on a finger at the same time. In the week prior to this our patient had bought some new lambs at a market which she was bottle-feeding, and soon after the purchase the lambs had developed sores over their lips. On examination our patient was well and afebrile. There was an inflamed nodular lesion on her left tragus approximately 2.5 cm in diameter which was weeping serous fluid and occluding the external auditory meatus. The left external auditory canal and tympanic membrane were normal. There was surrounding erythema and left sided tender cervical lymphadenopathy. The diagnosis of orf was made on the basis of her typical history and the classical lesion on her finger, but the lesion on her ear did not look typical as it had been incised and appeared to be secondarily infected. However, the diagnosis was confirmed by electron microscopy of fluid from the lesion as numerous parapox viruses were seen (Fig. 2). She was treated with a twice daily dressing lint soaked in 35 per cent idoxuridine in dimethyl sulphoxide applied to her ear for one week, and received antibiotics for the secondary infection

which responded rapidly. The lesions resolved completely over the next four weeks.



FIG. 1a

Lateral view of left pinna showing the Orf lesion of the tragus.



FIG. 1b

Posterior-oblique view of left pinna showing the Orf lesion of the tragus.

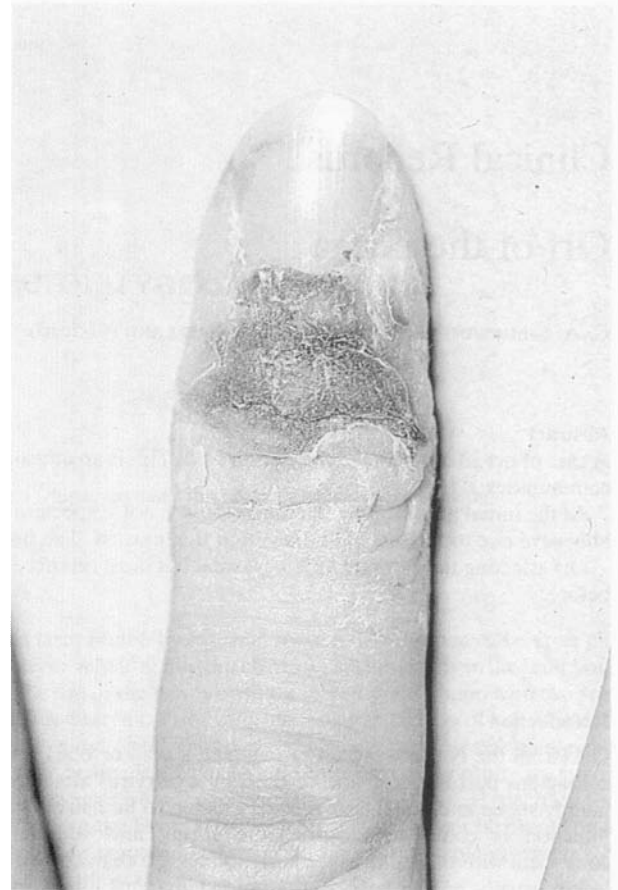


FIG. 1c

Lesion on the patient's finger.

Discussion

Orf is commonly seen by General Practitioners in rural practices, occurring particularly in Spring and Summer at the time of lambing. The incidence of human infection is probably much higher than routine reporting suggests as farm workers recognize the condition and rarely seek medical advice. It is occasionally seen in hospital practice if there is doubt about the diagnosis or there are associated complications such as secondary infection or erythema multiforme. It is caused by a parapox virus, which produces contagious pustular dermatitis in sheep and goats. It is particularly prevalent in lambs and kids, producing a papulo-vesicular eruption on the lips and surrounding skin; but it can produce lesions elsewhere on non-wool bearing skin. It is thought that the virus can persist on the soil of an affected pasture for some months, and the animals become infected by grazing. Infection is spread to man by direct contact affecting those that handle infected animals, such as butchers, shepherds, vets and farmers and their families. A vaccine is available for prevention if it spreads in animals. The lesions around the mouth and nose in infected lambs and kids can interfere with suckling and lead to emaciation. Prevention of spread to humans can be achieved by avoiding contact and wearing protective gloves. The lesion develops a few days after exposure. It is usually a solitary lesion, an erythematous papule which evolves into a target-like lesion, with the red centre surrounded by a white halo, and an outer halo of erythema. This progresses to develop into a hyperplastic nodule. The lesion is painless, slow to heal, leaves no scar and produces no constitutional disturbance. It should not be incised. Orf like other pox viruses, is sensitive to idoxuridine and its use can hasten recovery. Our patient's lesion was incised unnecessarily as the diagnosis of orf was not made and it was presumed

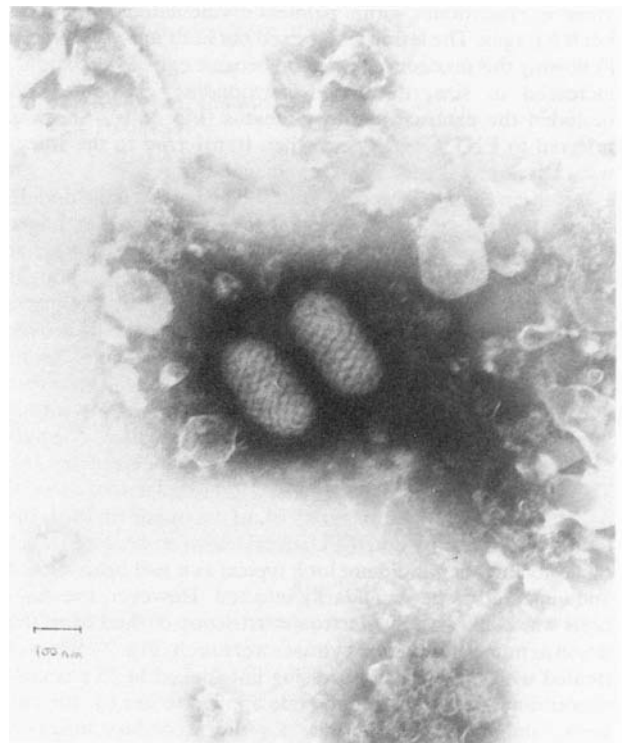


FIG. 2

Electron microphotograph of the Orf virus.

that it was a boil. However the woman's occupation, the history, and lesion being characteristically painless should have alerted the doctor. It classically occurs on the fingers or hands although occasionally lesions develop on the face. The history of exposure to lambs usually makes the diagnosis, obvious, however if there is doubt about the diagnosis electron microscopy of the characteristic parapox virus can provide confirmation.

Our patient must have inoculated herself by unconsciously scratching her ear. This is the first time a case of orf has presented at the Oxford ENT Department, and it is also the first time that a case of orf involving the ear has been seen at this Unit.

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References

Backsby, D. (1987) Poxviruses. In *Principals and Practice of Clini-*

- cal Virology. 2nd edition. (Zuckerman, A. J., Banat Valar, J. E., and Paterson, J. R., eds). Wiley: Chichester, Sussex. p. 428–430.
- Black, J. B. McK. (1968) Orf of the external auditory meatus. *Journal of Laryngology and Otology*, **82**: 375–378.
- Fenner, F. (1985) Poxviruses. In *Virology* (Fields, B. N., ed.) Raven Press: New York. p. 677–678.
- Freeman, G., Bron, A. J., Juel-Jenson, B. (1984) Ocular infection with orf virus. *American Journal of Ophthalmology*, **97**: 601–604.
- Juel-Jenson, B. E. (1987) Orf. In *Oxford Textbook of Medicine*. 2nd Edition. (Weatherall, D. J., Ledingham, J. G. G., Warrell, D. A., eds.) Oxford University Press: Oxford. p 5.83–5.84.
- Nakano, J. H., Millar, J. A. (1989) Small pox and other poxvirus infections. In *Infectious Diseases. A modern treatise of infectious processes*. J. B. Lippincott and Co.: Philadelphia. p. 939–940.

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