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Occupational otitis externa in chicken catchers

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Abstract
Otitis externa is only occasionally occupational in origin and infestations of the ear are even less common. Two cases of occupational otitis externa due to infestation with *Dermanyssus gallinae*, the red poultry mite, are reported occurring in poultry workers.

Key words: Otitis externa; Occupational diseases

Introduction

Otitis externa is a common condition causing discomfort and discharge from the ear which can sometimes be occupational in origin. Divers are an occupational group recognized as being at risk of otitis externa, which as in most cases, is due to bacterial or fungal infection or secondary infection of eczematous meatal skin. Infestations of the external auditory meatus are rare but solitary insects occasionally make their way into the canal causing discomfort and objective tinnitus. Two cases of otitis externa due to infestations have been reported in the literature; Zaaroura and Feinmesser (1986) described infestation by *Entorobius vermicularis*, the common thread worm, and Kron (1992) infestation of the external auditory canal by *Cochliomyia hominivorax*, the New World screw worm, but neither case had an occupational origin. There are no previously reported cases of otitis externa due to infestation with *D. gallinae*. Two such cases are reported below occurring in poultry catchers.

Case reports

Case 1

A 35-year-old male poultry catcher presented with a 12-month history of recurrent itchy ears and a more recent history of scanty greyish ear discharge. Examination showed creamy debris in both external auditory meati that on closer inspection was noticed to contain small moving creatures. Microscopy confirmed an infestation with *D. gallinae* (red poultry mite). Microbiological culture showed mixed organisms only and fungal culture was negative. He was treated with aural toilet and a course of permethrin one per cent to be used as ear drops. His symptoms resolved after two courses of treatment over a four-week period.

Case 2

A 47-year-old male poultry catcher presented with a one-week history of an itching left ear without any discharge. Examination showed an inflamed external auditory canal with mites crawling in the ear wax. Microscopy confirmed these mites to be *D. gallinae*. The external auditory meatus was cleaned and a course of anti-inflammatory ear drops was prescribed to treat the erythematous meatal skin. He experienced no further problems.

Discussion

D. gallinae (Figure 1) is a non-burrowing poultry mite which normally drops off the skin after feeding. It is known to cause papular urticaria in poultry workers, which characteristically affects skin creases and around the collar and cuffs of the neck, trunk and limbs but usually spares the face and hands (Rook *et al.*, 1986).

The two reported cases had suffered from otitis externa secondary to infestation of the external auditory meatus with the red poultry mite *D. gallinae*. Neither case had a past history of ear disease, dermatological conditions or other predisposing factors to otitis externa.

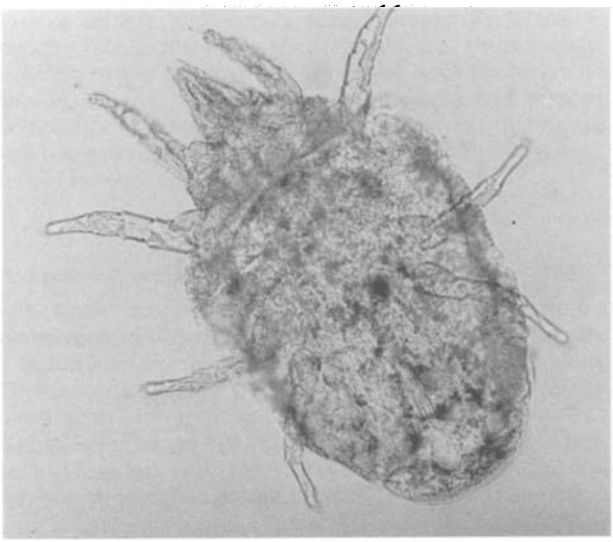

FIG. 1
Dermanyssus gallinae, the red poultry mite.

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Both men were employed as chicken catchers in deep litter poultry houses containing 20–40 000 live chickens. They would each catch up to 7 500 chickens per day and load them into crates for transportation. It is possible that mites entered the ear from atmospheric dust or by direct transfer on the catcher's hands.

It is likely that modern farming practices, with high density housing of poultry, increase the likelihood of human infestation with this mite.

References

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