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CLINICAL COMMENTARY

Nonefficient treatment for a mostly cosmetic problem?

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Summary

Aural plaques are a common condition but rarely need treatment. Diagnosis is usually straightforward by clinical examination. Differential diagnosis distinguishing aural plaques from sarcoid, if needed, is best achieved by PCR from surface samples or swabs. There is little evidence of any effect of autohaemotherapy. In contrast, Imiquimod is highly successful in the treatment of aural plaques. Purely cosmetic therapy of aural plaques is questionable.

AURAL PLAQUES

Aural plaques are usually well demarcated, single or multiple, slightly hyperkeratotic lesions, which are covered by a thin white crust. They primarily affect the inside of the pinna of one or both ears. Multiple small lesions can coalesce into one larger plaque. They can also acquire a thicker outer layer. Horses under 1 year of age are seldom affected. Aural plaques appear to be nonself-limiting (Torres & Koch, 2013). Several equine papillomaviruses (EcPV) have been identified as possible causative agents. EcPV types 3, 4, 5 and 6 have been detected in aural plaques so far (Bromberger et al., 2023; Lange et al., 2013; Postey et al., 2007). One case of squamous cell carcinoma (SCC) associated with aural plaques and containing EcPV4 DNA was published (Peters-Kennedy et al., 2020).

DIAGNOSIS

Aural plaques in horses are usually an incidental finding during clinical examination. Rarely is a clinician called upon to diagnose these lesions. Diagnosis is usually straightforward considering the typical appearance of the lesions. However, it is most important to distinguish aural plaques from auricular sarcoids. To this aim, a diagnostic protocol (Haspeslagh et al., 2018) or ultimately PCR for the detection of bovine delta-papillomavirus DNA should be used. PCR can be conducted from DNA of superficial skin scrapings or swabs, thus helping to avoid performing a biopsy. In addition, it is a highly sensitive and specific test to rule in or out sarcoids (Pratscher et al., 2019).

TREATMENT

Are aural plaques a disease which requires treatment? Very rarely do owners report head shyness and painful ears supposedly linked to aural plaques (Torres & Koch, 2013). How many cases of aural plaques are there which really need treatment? This clinician (EKH) has not seen one in 30 years of purely equine practice and specialising in treatment of papillomavirus-related disease. Certainly, pain or resenting handling of the ears or head (or even ear trimming) is not mentioned in the clinical findings of the four horses in the case series (Bastianetto et al., 2025).

Furthermore, it is unlikely that a purely epithelial lesion can cause pain. EcPV1-induced juvenile warts are epithelial lesions, and these are certainly not painful as are all other papillomavirus-related lesions in horses, be it sarcoids or even genital plaques/papillomatosis or cancer (Torres & Koch, 2013). Underlying inflammation, a plausible cause for pain, is usually absent from papillomavirus-related lesions. Inflammatory changes are certainly not mentioned in the histological findings in the four cases (Bastianetto et al., 2025). So, the vast majority of aural plaques appear to be a purely cosmetic problem *or 'an excuse of the owner for a badly trained horse'*.

Imiquimod proved to be highly effective in treating aural plaques (Torres et al., 2010; Zakia et al., 2016) as it did in certain types of sarcoids (Nogueira et al., 2006; Pettersson et al., 2020). Imiquimod is a topical immunomodulator that acts by binding to Toll-like receptor 7, thereby inducing the secretion of cytokines; these in turn stimulate a cell-mediated immune response. The immunotherapeutic

was originally developed to treat genital warts caused by papillomaviruses and is now licensed in many countries to treat a variety of skin tumours in humans. In line with its pro-inflammatory action, common adverse effects include inflammation, pain and crusting (Li & Chowdhury, 2025). These effects or side effects of Imiquimod can lead to a horse not tolerating its application. Pausing treatment or increasing the intervals between imiquimod application can help in these instances (EKH own experience; Zakia et al., 2016) as can, obviously, sedation.

AUTOHAEMOTHERAPY

In the case report in this issue (Bastianetto et al., 2025), autohaemotherapy was used to treat aural plaques in four horses with reported partial effect. The cited literature reports on ozone as the therapeutic agent and not on the reinfusion of untreated blood (Niño-Sandoval et al., 2021). A report on healthy horses describes marginal changes in some blood parameters (Lopes et al., 2021). Other articles cited to support autohaemotherapy in other species report either on self-limiting papillomavirus-mediated diseases in cattle (Geethanjali et al., 2024) or dogs (Borges et al., 2017) or do not mention autohaemotherapy at all (Yıldırım et al., 2022).

No systematic reviews or convincing scientific evidence exist that specifically evaluate or support the efficacy of nonozone autohaemotherapy for any medical condition (Brewer, 2014; Junior et al., 2015; Leite et al., 2008).

In the UK and – to our knowledge – in most of the EU, 'mutilation' (i.e. surgical treatment) is banned to address cosmetic concerns of animal owners. Can we endorse a treatment for purely cosmetic reasons? Albeit that the treatment is '*placebo at best*', therefore, has no side effect and the burden for the animal does not exceed repeat venous puncture and i.m. injections?

AUTHOR CONTRIBUTIONS

E. K. Hainisch: Conceptualization; writing – original draft; writing – review and editing. **S. Brandt:** Writing – review and editing.

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ETHICS STATEMENT

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