INFORMATION FOR VETERINARY SURGEONS

IMIQUIMOD (ALDARA®) GUIDELINES
Treatment of Sarcoids with Imiquimod (Aldara®) 5% Cream

Mechanisms of Action

- Aldara is a 5% imiquimod gel which has notable antiviral and immune response modifying properties; the latter are responsible for its anti-tumour effects.
- Imiquimod is used in human medicine to treat skin conditions including some tumours (basal cell carcinoma, superficial squamous cell carcinoma, and some superficial malignant melanomas). It is also used to treat actinic dermatitis / keratosis as well as genital warts (Condylomata acuminata) and ordinary skin warts. The long-term effects in these human disorders are impressive but the morbidity and discomfort of the treatment can be severe.
- There are few published reports of its use in horses, but it is clear that the effects are useful in sarcoid treatment in particular.\(^1\) In horses, imiquimod can cause subclinical lesions to become visible. This unmasking effect is of clinical benefit as lesions that may have otherwise have been missed are being treated, and this aspect is one of the key properties in the equine use of the drug. Although focal recurrence of tumour has been seen after imiquimod treatment, the tumour appears then to be amenable to surgical excision and other topical treatments.
- The mechanisms by which imiquimod activates the immune system is not yet known. There is evidence that when applied to skin, it can activate Langerhans cells, which subsequently migrate to local lymph nodes to activate the adaptive immune system. Natural killer cells, macrophages and B-lymphocytes also appear to be activated by imiquimod. New research has shown that imiquimod's anti-proliferative effect is independent of immune system activation or function. Imiquimod exerts its effect by increasing levels of the opioid growth factor receptor (OGFr).

The use of Aldara

- Please read the section below BEFORE starting any applications of this treatment!

- **Aldara** can be applied by the owner using a gloved finger or a cotton bud (for small lesions)
  1. Examination gloves should be worn when applying this treatment to the affected area
  2. Smear over the lesion and up to the edges but DO NOT RUB IN!
  3. There will be a local reaction characterised by inflammation which is expected. PLEASE WARN OWNERS
  4. Before applying the next application of Aldara, remove any remains of the previous application. The material might not penetrate through the black scabby crust that develops between applications. **This is best done using a swab that has been soaked in a dilute Hibiscrub solution. This may be uncomfortable for the horse!**
  5. Although we expect to see inflammation of the treatment area, if a strong or alarming reaction is seen STOP applications, take photos of the area, and send them to us for further advice / instructions.

- **AVOID contact with the eyes, lips & nostrils. In the event of accidental contact, remove cream by rinsing with water. Significant contact should be reported to your doctor as soon as possible.**

Storage of Aldara

- Each Aldara 5% cream sachet contains 250mg of a white to slightly yellow cream. An open sachet can be stored for up to 3 days in a sealed bag in a refrigerator. DO NOT store above 25°C. Re-use is not recommended. Where small lesions are being treated, the material in one sachet can be used for 2 applications.
Imiquimod is applied evenly over the surface of the lesion every 2-3 days according to a prescribed schedule. Each sequential application is made to a freshly denuded surface. This is often painful but it’s worth the effort in many cases. The method is not suitable for all types of sarcoid in all locations.
This case shows the effects of imiquimod on a periocular sarcoid. The lesion had verrucose and nodular components. Treatment was sustained in spite of some difficulties with compliance and the outcome was very satisfactory with nodule regression and an excellent cosmeses.
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