

Information on the melanoma vaccine for dogs and horses

Introduction

The melanoma vaccine is a promising novel therapy for the treatment of malignant melanoma. The vaccine was developed and first applied in the USA. The AOI Center is the first European veterinary oncological institute that is authorized to import this vaccine from the USA and use it on its patients. The melanoma vaccine represents a completely new therapy method which helps us in controlling malignant melanoma in dogs, giving them a longer survival time. Nowadays, we use this vaccine also for equine melanomas.

How does the melanoma vaccine work?

The vaccine activates the immune system and stimulates an immune response directed against the tumor. It contains a specific protein called Tyrosinase which is expressed also on the surface of the melanoma cells. After being activated from the vaccine, the immune system recognizes this protein on melanoma cells and destroys them.

How does the melanoma vaccine prolong survival?

Typically, survival time for dogs with advanced melanoma does not exceed six months, even if standard therapies are administered. If untreated, dogs usually die within two to three months. A recent study performed in the USA has shown that dogs with oral melanoma survive considerably longer if they are treated with the melanoma vaccine plus standard therapy: the average survival time was 389 days and some dogs survived up to two years.

How is the melanoma vaccine applied?

A total of four biweekly intradermal injections are needed for the initial series, and then one booster dose should be administered every six months. One to two months after the last vaccine, the blood values should be checked to assess the general health condition.

Why are four doses necessary?

The immune response becomes stronger after every applied dose and will be able to destroy the tumor. The booster every six months is necessary to keep the immune system alert, so that it can keep the tumor cells in check.

How can the melanoma vaccine be combined with other therapies?

Before starting the vaccination program, we recommend a local therapy (surgery or radiation therapy) to optimize the treatment and improve the results. Normally, radiation therapy requires four weekly fractions. The treatment schedule may be adapted to every patient on an individual basis.

What are the side effects of the vaccine?

The vaccine is generally very well tolerated. In rare cases, vaccination may cause some temporary, low-grade fever and fatigue which last for less than one day. A light swelling may be observed close to the injection area, but it disappears normally over one to two days.

How good are the chances of success?

Chances for the immune system to respond to the vaccine and thus fight the melanoma are about 50%. Unfortunately, it is not possible to predict if the vaccine will be successful in a given patient.



Is the injection painful?

The vaccine is applied with a special, needle-free syringe, which distributes it in very small droplets under the skin. Based on our observations, dogs and horses do not react to the vaccine in a stronger way than to a normal injection, but most of the patients will wince because of the unexpected sound of the syringe.

Does the melanoma vaccine have a therapeutic effect on melanoma metastases?

If metastases are already present at the beginning of the vaccination therapy, their regression is not to be expected. Thus, the earlier malignant melanoma is diagnosed and staged, the better are the chances of success.

How much does the vaccination program cost?

The melanoma vaccine is a highly specialized drug, which had high research and developmental costs. For this reason, therapy is expensive. The costs for the complete vaccination program sum up to approximately 2200 CHF. Costs for radiation therapy or surgery are invoiced separately.

*We are happy to answer to all your questions:
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