

Exciting New Treatment for Horses with Melanoma

Davie County Large Animal Hospital now offers a new treatment option for clients with grey horses that suffer from equine melanoma. Our board certified equine surgeon, Dr. José R. Castro, is able to administer the new plasmid DNA vaccine called Oncept®. This vaccine is still currently under clinical trials for its use in horses, but the results have been very positive thus far.

What is it?

- The Oncept® vaccine is a xenogeneic plasmid DNA vaccine that encodes human tyrosinase. Originally developed to treat melanoma in dogs, it stimulates the body to produce an immune response targeting the foreign human tyrosinase protein. Tyrosinase is a protein normally found in melanoma cells, but the body is unable to recognize the naturally produced tyrosinase as a foreign body. By encoding for human tyrosinase, the vaccine is able to produce an immune response and target all melanoma cells both internal and external.

What horses can benefit from Oncept®?

- Any grey horse diagnosed with equine melanoma. It is reported that 80% of grey horses over the age of 15 develop some form of equine melanoma. Tumors are most commonly seen on the head, prepuce and perineal region and usually are slow growing, causing no more than a cosmetic issue. However, some cases become aggressive and the tumors can metastasize to the internal organs or grow so large that they interfere with vital body functions like defecation and urination. Oncept® can help to regulate the spread and growth of these tumors once the horse has been diagnosed with equine melanoma.

How effective is it?

- Results from trials performed by Dr. Jeffery Phillips of Lincoln Memorial University have shown the vaccine to be effective at preventing further growth of melanomas. There is also evidence to support that the vaccine can also significantly reduce the size of the lesions.

Any side effects?

- There have been no reported adverse reactions to the vaccine.

How much will it cost?

- At Davie County Large Animal Hospital, first time vaccine patients should expect to pay a \$2000.00 pre-payment so we are able to order the Oncept® Vaccine and Administration Kit. Each subsequent administration of the Oncept® vaccine is between \$195.00 and \$205.00 per dose to cover sedation, administration, sterile prep of the injection site and Banamine. There are a total of 4 doses to be given every other week for 4 weeks. The total cost of the first administration series will be somewhere between \$2780.00 and \$2820.00.
- Current Oncept® patients that require a booster shot should expect to pay \$500.00 to order the vaccine and between \$195.00-\$205.00 for the administration (covers sedation, administration, sterile prep of the injection

site and Banamine). The total cost will be between \$695.00 and \$705.00 for the Oncept® Booster.

If you wish to know more about the efficacy of IFx-VET Direct Immunotherapy (Oncept®), please read the following article:

L.M. Lembcke, J.T. Blackford, D.A. Grosenbaugh, T. Leard, S.A. Kania, D.J. Trent, K. Prater, J. Biggerstaff, A. Odoi, J.C. Phillips. Safety and Immunoreactivity of a Xenogeneic DNA Plasmid Vaccine Expressing Human Tyrosinase in Tumor-Bearing Horses. Lincoln Memorial University College of Veterinary Medicine, Harrogate, TN. University of Tennessee, Knoxville, TN. Merial Ltd. Athens, GA.

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.852.4704&rep=rep1&type=pdf>

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How effective is it?

Results from trials performed by Veterinary Oncologists Dr. Lembcke & Dr. Jeffery Phillips¹ have shown the vaccine to be effective at preventing further growth of melanomas. There is also evidence to support that the vaccine can also significantly reduce the size of the lesions.

Any side effects?

There have been no reported adverse reactions to the vaccine.

What is the cost?

First Time Melanoma Vaccine Patients (\$2800/4doses)

Pre-Payment of \$2000.00 is required to order the *Oncept*® vaccine and administration kit.

First time melanoma patients require a total of 4 doses given every other week.

Administration* of the *Oncept*® Vaccine is \$200.00 per dose.

Current DCLAH Oncept® Vaccine Patients (\$700.00)

Oncept® Vaccine booster \$500.00 plus \$200.00 for administration*. *The administration cost covers the physical exam, mapping of the tumor(s), sterile preparation of the injection site and the administration of the vaccine itself using the *VetJet*® *needleless injector*.

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¹ L.M. Lembcke, J.T. Blackford, D.A. Grosenbaugh, T. Leard, S.A. Kania, D.J. Trent, K. Prater, J. Biggerstaff, A. Odoi, J.C. Phillips. *Safety and Immunoreactivity of a Xenogeneic DNA Plasmid Vaccine Expressing Human Tyrosinase in Tumor-Bearing Horses*. Lincoln Memorial University College of Veterinary Medicine, Harrogate, TN. University of Tennessee, Knoxville, TN. Merial Ltd. Athens, GA. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.852.4704&rep=rep1&type=pdf>