

Serenin Vet™, A Natural Alternative Supplement, Used as an Adjunct for Marine Mammal Behavior Modification

IAAAM 2012

Bethany M. Doescher¹; Johanna Mejia-Fava^{2,3}; Jeff Pawloski¹

¹Sea Life Park Hawaii, Waimanalo, HI, USA; ²College of Veterinary Medicine, University of Georgia, Athens, GA, USA; ³Animal Necessity LLC, New York, NY, USA

ABSTRACT

A variety of behavioral issues have been described in terrestrial and aquatic animals under human care.^{8,10} At times these behaviors may intensify and result in conditions that impact both the physical and mental health status of the animals thereby making the management of these cases very challenging.¹⁰ Many strategies have been employed to address these problems in aquatic mammals including behavioral modification, changes to the animal habitat, modification of social structure for the animal and cohorts, and the use of medications. Anxiolytics and hormonal treatments remain popular adjunctive therapies despite potential side-effects.^{1,7} Serenin Vet™ is a natural alternative that contains ingredients that may help by increasing serotonin levels and inhibiting corticosterone elevation.^{2,3,5,6} Reports in the literature have shown serotonin inhibits aggressive behavior in various vertebrates, ranging from teleost fish to primates.^{4,9}

A survey was sent to 11 marine institutions using Serenin Vet™ as an adjunctive therapy; information on 9 sea lions and 12 dolphins was analyzed for this report. All animals had some degree of behavioral and environmental modification and training while on Serenin Vet™. Behaviors being exhibited by the animals in this survey included the following: 43% displayed intra-species aggression, 19% self-injurious rubbing behavior, 14% human-directed aggression, and 29% fear and/or anxiety associated with social incompatibility or environmental factors. A majority of animals (67%) were reported to show improvement as measured by a decrease in behavioral signs, with 24% showing a complete resolution of behavioral problems. The mean time before beneficial effects were first observed was 27 days and the mean length of treatment was 16 months. Only 9% of animals failed to show any improvement. No behavioral, physical, or biochemical side-effects were reported for any of the animals in the survey. We consider the use of Serenin Vet™ as an effective alternative for aberrant behavioral conditions in mammals under human care.

ACKNOWLEDGEMENTS

The authors would like to thank all of the veterinarians and medical staff including Dr. Michael Renner, Pat Clough, Beverley Osborne, and Pam Hughes, for their hard work in helping to collect data to fill out the survey. We would also like to recognize Orthomolecular Nutritionist, Dr. Norma Pestano, for her extensive research in developing supplement formulations that seek to prevent diseases by optimizing nutritional intake, complemented with vitamin and supplement protocols.

References

1. Crowell-Davis SL, Murray T. *Veterinary Psychopharmacology*. Ames: Blackwell Publishing; 2006:270.
2. Crupi R, Mazzon E, Marino A, La Spada G, Bramanti P, Battaglia F, Cuzzocrea S, Spina E. *Hypericum perforatum* treatment: effect on behaviour and neurogenesis in a chronic stress model in mice. *BMC Complement Altern Med*. 2011;11:7.
3. Doescher B, Mejia-Fava J, Colitz C, Pestano N, Perez P. Treatment of recurrent chronic ulcerative dermatitis in a bottlenose dolphin (*Tursiops truncatus*). *IAAAM 42nd Annual Conference Proceedings*, Las Vegas, Nevada; 2011:173–174.
4. Edwards DH, Kravitz EA. Serotonin, social status and aggression. *Curr Opin Neurobiol*. 1997;7:812–819.
5. Fiebich BL, Knörle R, Appel K, Kammler T, Weiss G. Pharmacological studies in an herbal drug combination of St. John's Wort (*Hypericum perforatum*) and passion flower (*Passiflora incarnata*): *in vitro* and *in vivo* evidence of synergy between *Hypericum* and *Passiflora* in antidepressant pharmacological models. *Fitoterapia*. 2010;82:474–480.
6. Kimura Y, Sumiyoshi M. Effects of various *Eleutherococcus senticosus* cortex on swimming time, natural killer activity and corticosterone level in forced swimming stressed mice. *J Ethnopharmacol*. 2004;95:447–453.
7. Manire CA. The use of megestrol acetate in Atlantic bottlenose dolphins. *IAAAM 41st Annual Conference Proceedings*, Vancouver, Canada; 2010:87.
8. Moberg GP, Mench JA. *The Biology of Animal Stress*. Cambridge: CABI Publishing; 2000:377.
9. Winberg S, Øverli Ø, Lepage O. Suppression of aggression in rainbow trout (*Oncorhynchus mykiss*) by dietary L-tryptophan. *J Exp Biol*. 2001;204:3867–3876.
10. Young RJ. *Environmental Enrichment for Captive Animals*. Oxford: Blackwell Publishing; 2003:228.

SPEAKER INFORMATION

(click the speaker's name to view other papers and abstracts submitted by this speaker)

[Bethany M. Doescher](#)

Sea Life Park Hawaii
Waimanalo, HI, USA