COMPARISON OF TWO TREATMENT OPTIONS FOR CYTAUXZOOESIS

PROJECT STUDY: Prospective Comparison of Two Treatments Options for Cytauxzoonosis

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Cytauxzoonosis is an extraordinarily rapid illness that often causes death in otherwise healthy cats. The disease is caused by the hemoprotozoan parasite *Cytauxzoon felis*, and is transmitted to cats by the bite of a tick vector. Once considered a rare and geographically restricted disease, the illness is an emerging disease with an expanding geographic range, having been recognized in almost half of the continental United States.

Approximately 2 weeks after the bite of a tick, the infected cat stops eating and becomes depressed. Within days, it is likely to become anemic, jaundiced, have difficulty breathing, and bleed abnormally. Without treatment, ~95% of sick cats will die within 5 days of the first signs of illness.

A combination of an antimalarial drug (atovaquone) and an antibiotic (azithromycin) plus supportive care was demonstrated to result in a 60% survival rate. Unfortunately, atovaquone doesn’t work on all strains, is expensive, difficult to obtain, and difficult to administer. An alternative antimalarial drug, Coartem®, is far less expensive and can be given as a tablet twice daily for three days. The investigators compared the efficacy of these two treatment regimens for cytauxzoonosis in naturally infected cats with the hope that if survival was similar for the two, Coartem would offer tremendous benefit in terms of cost, ease of administration, and availability as compared to atovaquone and azithromycin.

The owners of naturally infected cats were offered the chance to enroll their cat in this prospective study comparing the two drugs, with a goal of enrolling 90 cats. Although 94 cats were enrolled, several were excluded for a variety of reasons including incomplete medical records, failure to obtain informed consent, failure to adhere to protocol, or death before administration of the first drug dose. Cats were treated by cooperating veterinarians in Missouri (44), Oklahoma (20), Tennessee (12), and Arkansas (5). Of the 83 cats included in analysis, atovaquone and azithromycin was administered for 40 cats, and coartem to 43. Survival rates were similar regardless of the drug used for treatment. Of the 40 cats given A&A, 19 lived (47.5%) and 21 died (52.5%). Of the 43 cats treated with coartem, 20 lived (46.5%) and 23 died (53.5%). Based on chi-square statistic, there was no difference in the likelihood that a cat would live or die if treated with atovaquone and azithromycin vs. coartem.

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