COMPARING PCR WITH FUNGAL CULTURE FOR DIAGNOSIS OF RINGWORM

PROJECT STUDY: A field study to compare a polymerase chain reaction (PCR) test with fungal culture for diagnosis of ringworm in an animal shelter.

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The investigators compared the reliability of the IDEXX Real time PCR test for ringworm with fungal culture in a field setting. 20 normal cats were initially tested by culture and PCR, all of which were negative. 201 cats were included in the main study. Cats were of variable suspicion of ringworm. Upon intake at the shelter, 96.7% cats that were culture positive were also PCR positive. 88.5% culture negative results were also PCR negative.

Overall, the most important aspect of the results were that PCR identified 90% of cats at intake that were negative by culture. This translates into a 2-3 day holding period as compared 14-21 days needed for culture. This will allow many cats to move quickly to adoption. The PCR also reliably identified culture positive results.

PCR was more sensitive than culture. However some were not truly clinical for ringworm. Therefore as a diagnostic test, PCR will identify some cats with minor coat contamination that do not really need treatment. This was offset by the number of negative cases that will quickly be identified and cleared. It is not, however, a reliable method for confirming a cure in treated cats due to the ability of PCR to pick up contamination and dead organisms.

Summary prepared by Melissa A. Kennedy, DVM, PhD, DACVIM © 2016