

Aloe...Is It Me You're Looking for? A Clinical Trial to Determine the Effect of Aloe Vera on Dogs' Skin Allergies

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Skin allergies in dogs are common, leading to discomfort. Medications used to treat allergies are expensive, not always working. To combat this problem, the researcher believes an Aloe Vera spray will improve the dogs allergies due to their antibacterial properties and prior usage in health. Procedure1 Staphylococcus epidermidis was swabbed onto a petri dish and aloe was applied to only half of the dish. There was an 80% reduction in bacterial growth. Procedure2 eight dogs with skin allergies itchiness were recorded on a scale of 0-10 (0 normal,10 severe) Contact plates were applied to the left groin/arm-pit of each dog. Next, a pH meter and Electric Corneometer were applied to the dogs left groin&arm-pit for the level of hydration&pH. After 24hours, bacterial colonies were counted. Procedure2 was repeated, except looking at the right groin/arm-pit, after applying aloe for 6 days every 12hours. There was no inhibition to measure on the first trial, but the side with the aloe had 20% bacteria growth. The itchiness showed 5 (moderate) untreated and 2.8 treated (very mild). The groin hydration went from 26.45µm to 32.80µm and the arm-pit 18.80µm to 21.47µm. The pH for the groin went from 4.8 to 4.6 and the arm-pit remained a 4.9. The bacteria count for the groin went from 264.6CFU to 453.5CFU, arm-pit 153.5CFU to 275CFU. To conclude, the hypothesis was partially supported aloe helped with hydration, itchiness, and pH, but not with the bacteria count.

Awards Won:

Air Force Research Laboratory on behalf of the United States Air Force: Glass trophy and USAF medal for each recipient

Air Force Research Laboratory on behalf of the United States Air Force: First Award of \$750 in each Regeneron ISEF

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