

Response to Reviewer 1 Comments

Title: I advise to revise the title since the results presented were obtained in few dogs, so it seem to be too risky make such an assumption with the low number of dogs tested.

Response 1: Title changed to “Skin barrier reinforcement effect **assessment** of a spot-on based on natural ingredients in a dog model of tape stripping”

Lines 22-26: please provide references

Lines 32-38: please provide references for TEWL and SSH

Lines 46-47: authors state that “Even though the skin barrier has been extensively studied in dogs, few treatments 46 have been proven effective both experimentally and clinically” but no reference is provided – please provide those more relevant to the scope of the paper

Response 2: References added.

Materials and methods: this section is not very clear and hard to follow (as an example, lines 79-81: what was the frequency of application of investigated product). Please completely rewrite, especially when explaining in detail the procedures of stripping in sites and days.

Response 3: The frequency of application is written on the quoted lines (*On the last day of week 1, week 2 and week 3, the spot-on was applied at the “spot-on” site*). Sentences were added for clarification of the timetable, tape stripping, clipping, and the figure explaining the protocol was clarified as well. Headings were added for space and clarity.

Lines 100-101: authors reported that “These data showed that our model of acute disruption of the skin barrier 100 worked as intended”, which appears to be a discussion of the result obtained. Thus, this phrase is not pertinent to result section, please move to discussion section

Lines 102-103: the same as above

Response 4: Sentences moved to discussion.

Line 134: please remove “as expected” since this is a conclusion of the authors, not pertinent to result section, were the results obtained should be aseptically reported

Lines 153-154 this is a conclusion of the authors, not pertinent to result section, were the results obtained should be aseptically reported (again)

Figure 5: please detail how arbitrary units of SSH were determined.

Response 5: Modifications added. The arbitrary units are the one given by the product, chosen by the manufacturer. A sentence was added in the methods paragraph.

Lines 190-192: the brand of the shampoo is irrelevant, it would have been interesting to read the composition instead

Response 6: composition added, brand removed.

Conclusion section: this section needs to be completely rephrased since it appears excessive to attribute such properties to the investigated product in the trial herein presented

Response 7: The statistical significance of the results show that, indeed, in this model, the spot-on shows protective properties on TEWL. The last sentence "Its use could be considered in addressing canine atopic dermatitis" has been changed to "Its use could be considered as an adjunctive treatment of diseases implicating skin barrier defects, such as canine atopic dermatitis, but further studies are needed to confirm this effect."