LESPONNE Isabelle[1], KLEIM Louise[1], LAXALDE Jérémy[2], WATSON Adrian Leslie[2]

[1]Royal Canin, R&D, Design Team – 650, chemin de la Petite Camargue 30470 Aimargues France
[2]Royal Canin, R&D, Research Team – 650, chemin de la Petite Camargue 30470 Aimargues France

Let the coat shine! Towards a validation of glossymeter-based measurements in pets – A pilot study in healthy dogs

Skin issues are among the most frequently presenting complaints in small animal veterinary practice. To support their monitoring, several scales have been validated, e.g. for skin lesions severity. Coat condition can also associate with skin health; however, its accurate evaluation remains difficult in pets, commonly relying upon owners' subjective responses to questionnaires. The purpose of this pilot study was to determine whether a more quantitative approach may confirm changes observed in coat shine subjectively. The methodology involved glossymeter measurements, performed in healthy adult dogs, before (T0) and after (T1) a standardized grooming procedure, on 2 body areas (flank, head summit). The hypothesis was that the device would deliver measures whose evolution would be aligned with the observed coat shine increase (on a scale from 1 (glistens) to 4 (dull coat)). N= 22 dogs were included, from various breeds (including giant poodle, cairn terrier, west highland white terrier, cocker spaniel), with diverse coat features (length, softness, curliness) though all with part or full white/light colored-coat. After grooming, all dogs scored a visibly shinier coat: the average score, on the 1-4 scale, evolved from 2,78 to 1,87. There was a significant increase in 3 parameters measured on the head by the glossymeter: average 'gloss' (from 8,17 (T0) to 9,91 (T1), p=0,0004), 'gloss diffuse scattering correction' (from 3,92 to 5,2; p=0,0037) and 'diffuse reflection' (from 41,22 to 45,83; p=0,0242) and on the flank for 'diffuse reflection' (from 43,59 to 49,48; p=0,0363). This pilot study shows that, in this group of dogs, the glossymeter provided quantitative results aligned with visual assessment of shine evolution. More studies are warranted to confirm the method's adequacy in more pets, with other colors.

Keywords: dog, coat, shine, glossymeter, grooming, white

Biography

Dr Lesponne graduated from Toulouse National Veterinary School, France, in 2001, after a last school year dedicated to pet's medicine & surgery. Her DVM thesis, on parenteral nutrition, was obtained in 2002. After which, she enjoyed working in several small animal practices for 6.5years (medicine, surgery, exotics) and moved to Merial company in 2007, where she worked as regional technical support (ectoparasites, infectious diseases, osteoarthritis). She joined Royal Canin in 2011, within Research & Development unit. Passionate about Dermatology, food allergy, quality and purity of nutritional solutions, she has authored some publications and communications in international congresses in this area.

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