

Effectiveness and Appreciation by Pet Owners of a Cleaning Foam to Help Keep Pet's Coat Clean and Skin Healthy

Aurélie Girardin¹, Céline S Nicolas^{1*}, Patricia Monginoux¹, Hugues Gatto¹, Christophe A Rème¹ and Catherine Ereau²

¹Petfood Petcare Market Unit, Virbac SA, Carros, France

²Global Marketing and Market Development (GM&MD) Department, Virbac SA, Carros, France

***Corresponding Author:** Celine S Nicolas, Petfood Petcare Market Unit, Virbac SA, Carros, France.

Received: March 07, 2022; **Published:** March 25, 2022

Abstract

Pets can get easily soiled when going outside and cleaning them, while necessary for both the animal and owner's health, can be a real burden. To understand the habits and requirements for a better cleaning approach, some owners mindful of their pet's skin, coat and general health were interviewed. They were then given a new cleanser to try for four weeks. The cleanser is a micellar water adapted for pets that comes in a foam with no water or rinsing required. Owners were asked different questions after each use to assess their perception on different aspects, including its effectiveness to clean and acceptance by the pet.

Twenty-eight dog owners and eleven cat owners were interviewed and participated in the trial. Based on their responses, owners usually wash their pets at home in a bathtub or shower, with shampoos not always adapted for pets (especially for cats). Although most dog owners found washing their dog pleasant and easy, most cat owners found it unpleasant and difficult. They usually spend between 10 and 20 minutes on average to wash their pet and it was mostly described as unpleasant for the pet.

When the new product was given to test, it was used on 181 occasions in total, either on local areas or on the whole body. It was found to be easy to use and quicker than with a proper bath. Owners were satisfied with the effectiveness of cleaning (84% of owners satisfied), the odor on the animal (70% satisfied) and the aspect of the haircoat and skin (85% and 92% satisfied, respectively). However, a proper bath with shampoo may still be necessary for a deeper cleaning or to clean large areas, or the whole body.

The new cleanser is therefore well adapted to clean small areas or even replace shampoos in non-cooperative animals, or when no water is available. It provides a quick and efficient cleaning and can be transported and used anywhere.

Keywords: *Allerderm Foam Cleanser; Micellar Water; Dog; Cat; No Rinsing*

Introduction

Dogs and cats can easily get dirty when going outside and bathing them is not always an easy task, especially for cats. Having a dirty pet, not easy to wash, can seriously damage the human-animal bond and quality of life of both the pet and owner and can have more serious consequences on the animal's health. Indeed, they can be soiled with mud or other animal's feces but also with pollutants, toxics, parasites or microorganisms that can damage their skin or their general health and may even be deleterious for the owners [1,2]. Keeping the animal's skin and fur clean and healthy is therefore a necessity for both the animal and owner.

There are several shampoos and solutions now on the market but they are not all adapted to the pet's skin, and can sometimes be too stringent. A good shampoo for pets should have high cleansing properties, higher than what can be found in human shampoos, while respecting the specificities of the pet's fur and skin (i.e. thicker stratum corneum than human, more alkaline, neutral pH, higher density of follicles, etc.) for a good tolerance [3]. Good rinsing properties must also be sought since surfactants can be really irritating for the skin and because pets leak their fur. When using dry shampoos or no-rinse solutions, a good wetting power should be added to these properties to facilitate cleaning.

Micellar waters made of nonionic surfactants have these interesting properties, including a good wetting power, as well as good tolerance and cleansing properties [3-5]. They are now widely used in human cosmetics but not so much in dermatological hygiene products for pets.

The particularities of such solution come from the surfactant made of amphiphilic molecules that can organize in micelles to trap dirt and greasy elements in their center (thanks to their long hydrocarbon chains), while remaining soluble in water (thanks to their hydrophilic heads) to be easily removed. Nonionic surfactants provide a better tolerance for the skin than other surfactants and should therefore be preferred.

A foam cleanser (Allerderm™ Foam, Virbac, France) was developed, based on a micellar water solution, with excellent cleansing properties as demonstrated with similar products [6]. It also contains ingredients known to preserve the skin barrier [7,8], with a soothing effect [9] and has a neutral pH adapted to pet's skin. It can therefore be used on any type of skin, even sensitive ones. The new cleanser comes in a foam, thanks to its pump, for an easy application with no water needed.

A survey was conducted to understand the habits of pet owners to clean their pets and what expectations they had in terms of cleansers. They were also given the new foam cleanser for 4 weeks to test its effectiveness and get their general perception.

Materials and Methods

Selection of owners

Thirty-nine pet owners (28 dog owners and 11 cat owners) from France were interviewed by an independent institute about their usage and habits to clean their pets before receiving the product to test. Owners selected to participate had animals that could regularly go outside, either alone or with the owner and that frequently get dirty when coming back home. The owners selected had to take care of their pets' fur, bathing them at least twice a year and brushing them at least once a week. All animals had to be healthy (no treatment given), vaccinated, treated against external parasites and regularly followed by a veterinarian. Animals with sensitive skin could be selected if no specific treatments were required according to their veterinarian.

Trial with the new product

All participants received the foam cleanser (Virbac, France) with no label on it (Figure 1).



Figure 1: Picture of the foam cleanser given to the participants.

During the 4-week trial with the product, the owners were first instructed to use it as per recommendation for 15 days: apply the product with the hand, rubbing/massaging gently the area to clean and wiping off the excess of product. Brushing is possible when the fur is dry to eliminate residues and get a better result.

They were then allowed to use it as they wished for the remaining 15 days. They had to fill in a questionnaire after each use to assess different aspects of the product and usage and their perception on effectiveness. The approval of odor and effectiveness was assessed using a scale from 0 (not liking at all) to 10 (liking very much). They were also interviewed at the end of the trial to get their general feeling on the product tested.

Results

Usages and habits of the selected panel

Characteristics of the selected panel

The animals selected were 36% males and 64% females and were mainly between 6 months and 3 years of age (46%, Table 1). Dogs were of different breeds (21 breeds cited) and most dogs weighed between 10 and 30 kg (43%, Table 1). Cats weighed on average 4.8 kg and were mostly European or domestic cats. All pets were vaccinated and went to visit the veterinarian in the past 12 months, with 68% of dogs and 18% of cats visiting the veterinarian in the past 6 months. Three dogs (11%) were described to be with dry and/or irritated skin. Dogs’ hair was either long (46%), short (36%) or very short (18%) and most contained white hair (68%). Cats’ hair were described as short (45%), half-long (27%) or long (27%) and most contained light gray (45%), dark gray (36%) and/or white (36%) hair.

		Dog (n = 28)	Cat (n = 11)
Sex	Male	32%	45%
	Female	68%	55%
Age (in years)	0.5 - 3	43%	55%
	4 - 8	29%	27%
	> 8	29%	18%
Weight (kg)	< 5	7%	55%
	5 - 10	32%	45%
	10 - 30	43%	
	30 - 50	18%	
Hair length	Very short	18%	0%
	Short	36%	45%
	Half-long	0%	27%
	Long	46%	27%
Hair color (several colors possible)	White	58%	36%
	Light gray	0%	45%
	Dark gray	0%	36%
	Black	14%	9%
	Ginger	4%	9%
	Light brown	21%	0%
	Dark brown	18%	0%
	Other	4%	9%
Cleaning frequency (several responses possible)	At least once a week	4%	0%
	Once a week	7%	0%
	Several times a month	25%	0%
	Once a month	36%	18%
	Once every other month	18%	9%
	Twice a year	11%	45%
	When necessary	14%	27%

Table 1: Characteristics of the animals selected.

Where do they live?

In general, selected pets could go outside at least once a day and 69% of pets spent as much time outside as inside. Gardens and roads were the main area where they could go. Some could also have access to fields, parks or forests.

How do pets get dirty?

These pets get dirty when going outside. Dogs were described as liking to roll in water, dirt or mud and to be attracted by strong odors. They usually got dirty in the limbs, back, stomach or muzzle. Cats were described as liking narrow spaces, like under the cars, and could get dirty at different places in the body but mostly in the back.

How are pets cleaned?

Dirt, followed by a bad odor for dogs or just a regular habit for both dogs and cats (for ¼ of owners), are the main reasons an owner would wash the pet.

Cleaning usually occurs at home, in the bathtub or shower. Some dog owners (¼) could also wash their dogs outside. One third of dog owners go to the groomer at least once a year, mainly for a haircut.

Seventy-two percent (72%) of dog owners and 18% of the cat owners selected said they cleaned their dogs/cats at least once a month. Most cat owners (45%) said they cleaned their cats twice a year and 27% said they cleaned it when necessary (Table 1).

All dog owners use a shampoo adapted for dogs while only half of cat owners use a shampoo adapted for cats. Some cat owners (⅓) use their own shampoo or shower gel and a few use a dry shampoo or equivalent (no rinsing).

Owners spend on average between 10 and 20 minutes to wash their pets (longer for cats than dogs) and this duration does not seem long for most of them. More than half of dog owners considered washing their dog was easy and pleasant while more than half of cat owners considered it difficult and rather unpleasant. More than half of dog owners always clean their dogs the same way while cat owners said they could adapt based on the size and type of dirt, cleaning only locally when possible.

For drying, the great majority of owners (80%) use a towel after bathing to remove the excess of water and let the fur dry on its own (72%).

When asked if the pet seems to like to be cleaned, half of dog owners said yes while most cat owners said no. Dogs described as liking to be cleaned had a positive behavior and often received a treat after. The dogs described as not liking to be bathed were also described as being fearful, paralyzed or wanting to run away during bathing. Most cats want to run away during bathing and need to be held. Some even become aggressive.

How are pets brushed?

All owners interrogated use to brush their pet's fur at least once a week. The main reasons for brushing are the loss of hair (>50% of owners) and dirt (for cat owners mainly) or just to disentangle the hair (for half of cat owners). Brushing is described as easy and pleasant by most owners. It is usually considered a moment of sharing and complicity.

What products are used to clean the pet?

The products used to clean are not necessarily always the same. They are usually bought in supermarkets or pet shops and more rarely in pharmacies or at the veterinary clinic. The products are chosen based on the claims made on the product (for dogs mainly) or as advised by a veterinarian or seller (for half of cat owners).

What kind of product could be helpful?

The main expectations for a new cleanser are the odor left on the fur that should be pleasant (for dogs mainly) or neutral and not too strong (for cats mainly), the good tolerance (no discomfort and adapted to the pet’s skin) and the good effectiveness to clean. Giving a shiny and soft hair coat was also a criteria of importance as well as the easiness of use. However, when asked about the criteria to buy the product, the good tolerance, the price and the desired effects as claimed on the packaging came first.

Perception of the new foam cleanser

Usages

In total, the tested cleanser was used 181 times (130 times for dogs and 51 times for cats). Most of the time it was used at home (87%) and for a local application (83%, Table 2).

		Total (n = 181)	Dog (n = 130)	Cat (n = 51)
Where was it used?	At home	87%	84%	96%
	Outside	13%	16%	4%
On which part of the animal was it used?	On the dirty area	58%	56%	61%
	On the dirty area and around	25%	24%	28%
	On the whole body	18%	20%	12%
How many pumps were required?	1	7%	3%	18%
	2	15%	13%	20%
	3	23%	25%	18%
	4	14%	13%	16%
	5 or more	41%	46%	29%

Table 2: Usage of the cleanser during the trial.

Dogs were mostly cleaned on the limbs/feet, on the back and the head while cats were mostly cleaned on the back and head. In 88% of the time, the stains did not bother or irritate the animal. The stains were generally on the coat alone (77% of cases) while in 23% of cases, it was covering both the fur and skin.

Main reasons to clean (amongst others) were the presence of residue on the fur (dirt, dust, mud, etc.), a coloration of the fur, the presence of wet hair or a bad odor.

To clean their cats, in 71% of cases, owners had to press less than 5 times on the pump and in 56% of cases, only 1 to 3 times. On 6 occasions (12%), the product was applied on the whole cat and the owner had to press 2 (2 occasion), 4 (2 occasions) or 5 times or more (on 2 occasions) on the pump to efficiently clean the cat.

For dogs, in 84% of cases, owners had to press at least 3 times on the pump to efficiently clean the area and in 46% of cases, at least 5 times, especially for dogs with long hair. On 26 occasions (20%), the owner applied the product on the whole body and needed 4 (on 2 occasions) or 5 or more pressures of the pump (24 occasions) to clean the dog.

Overall, using the product on small areas was judged as beneficial to avoid the difficulties of a bath. However, more than half of cat owners judged the product could also be used on the whole body.

Therefore, the foam cleanser was considered more as a complement to clean the dog between baths, coming as handy to clean small spots at home or on the go and avoid washing the whole dog, saving time. For cats, it was considered either as a replacement/alternative or as a complement for cats, depending on owners and the willingness of the cat to be bathed.

The foam

The fact that the cleanser is a liquid (in a transparent bottle) while it comes out as a foam (thanks to the pump) was well appreciated by ¾ of owners. It was described as pleasant and as a real advantage by most owners who also described it as light, not sticky but still with a good hold. Some owners with sensitive skin also said it was not stringent for their own skin. The animals did not have any negative reactions either. The main strengths of the foam were that it could save time and help take the right quantity for the area to clean.

Easiness of use

Almost all owners (95%) judged the product was easy to use and to spread on the animal and 92% found it pleasant to apply on the area to clean. It was also deemed to be easy to transport and use on the go. Three quarters of owners judged the product more practical than their usual cleanser (shampoo mainly) due to the fact that no rinsing was necessary and that it does not foam on the animal.

The average duration to clean the animal was reduced to 5 min (vs 10-20 min with the usual shampoo) and the animal was generally calmer than usual. The fact the product can be used with just one hand was also a strength.

Effectiveness to clean

In the great majority of cases (84%), the owners were satisfied with the product’s effectiveness to clean (Figure 2 and 3). Seven owners of pets with long hair were more mitigated, judging it effective on certain stains but not all or judged a classical shampoo more efficient. In 85% of cases, owners were satisfied by the fur aspect after using the product, describing it as soft and pleasant and in 92% of cases, they were satisfied with the skin aspect (Figure 2).

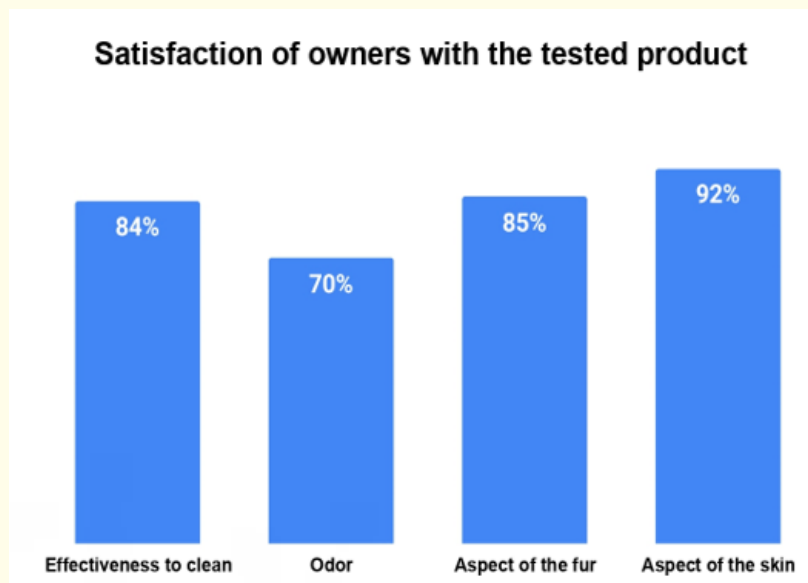


Figure 2: Percentage of owners satisfied with the product’s effectiveness to clean, odor on the animal, aspect of the fur and of the skin after use.



Figure 3: Pictures of pets before and after using the foam cleanser. Pictures were taken by the participants to show the effects of the product on large areas (a-right leg of a golden retriever; b-back of a Yorkshire terrier; c- back of a cat) or smaller areas (d- right side of the neck of a Jack Russel terrier; e-left elbow of a golden retriever and f-legs/feet of a cat).

Odor

Though the odor of the product itself was mitigated between owners, the odor of the pet after cleansing was more consensual with most owners appreciating the odor on their animal (66% of owners gave an approval score > 6/10). In 70% of cases, the owners were satisfied with the product odor (Figure 2). The perception was slightly better for dog owners than for cat owners, though. Almost all owners didn't feel any odor in the room after using the product, which was regarded as an advantage. They also noted that the odor did not seem to bother their pet.

When owners were asked to rate the odor from 0 (I don't like it at all) to 10 (I like it very much) after cleaning, a global median (Q1-Q3) score of 7 (6 - 8) was given (n = 181). For dogs, the median (Q1-Q3) score was of 7 (6 - 8) and for cats of 7 (5 - 8) (n = 130 and 51, respectively).

Instructions for use

After 15 days, owners could use the product as they wish and could change the protocol. However, in the great majority of cases (79%), owners continued to use the product as instructed. In some instances (20%), owners preferred to use a glove or other tissue when applying the product. During the whole study period, 80% of owners wiped their pet's coat after use and only 28% dried it. Around half of the owners (48%) brushed their pets after use.

Advantages of the product tested vs current product

In general, the foam cleanser was judged more practical and quicker to use.

Around ¼ of owners judged their pet was calmer with the product tested than with the usual method, during (23% of owners) and after (25%) the cleaning.

The cleaning effectiveness was judged similar or different from the current cleanser in a way that it was judged good to clean small areas or the surface layer but that a deeper or more complete cleaning was achieved with a proper shampoo that needs rinsing.

According to owners, the result on the fur aspect was slightly better with the tested product than with their standard shampoo.

Global appreciation

The approval rating score (median - Q1-Q3) rated from 0 (I don't like it at all) to 10 (I like it very much) was of 7 (6 - 8) globally (n=181) and was slightly better for dogs than cats [8 (6 - 8) vs 7 (6 - 9), n = 130 and 51, respectively].

Finally, 82% of dog owners and 64% of cat owners were ready to buy the product. However, 18% of cat owners and 7% of dog owners said they would likely buy the product if they knew more about it (no information on the product composition was given for the trial).

Discussion

Thirty-nine pet owners mindful of their pets' fur and skin health were interviewed concerning their habits to clean their pets. All pets regularly go out and can easily get dirty. Cleaning generally occurs at home in the bathtub or shower and takes 10 to 20 minutes. Though dog owners generally find washing their dogs pleasant and easy and do so regularly (monthly or even weekly for some), cat owners generally find it unpleasant and difficult and mostly do it when necessary.

Interestingly, all dog owners interviewed use a shampoo adapted for pets while only half of cat owners do so. However, the skin and fur of pets are much different than the human ones and using hygiene products for humans is not appropriate and can be irritating for the pet's skin.

The good tolerance of the shampoo or cleanser by the pet is one of the main criteria to select and buy products by owners, together with the odor, effectiveness to clean and price.

Having a product adapted to the pet's skin and coat, easy and quick to use, effective to clean and refresh the animal could therefore be a good alternative to the traditional shampoos.

The owners interviewed were given a cleanser to test for four weeks on their pets. This cleanser is a micellar water-based solution, known to have excellent cleansing properties, as demonstrated with an ear cleanser based on a similar formula [6]. The formula is also known to be safe to use, even on irritated skin, thanks to its adapted pH and soothing ingredients (glycotechnology) [7-9]. The cleaner given to test (Allerderm™ foam) does not need any water nor rinsing. It is meant to be used on small areas or the whole body, applying the foam on the area to clean, massaging it and wiping off the excess with a towel for example. Brushing after cleaning is also recommended.

The owners used it as such on their animals on 181 occasions in total, either locally or globally. The product was described as easier and quicker to use than a standard shampoo. The product was efficient to clean (84% of owners satisfied), the odor on the animal was appreciated (by 70% of owners) and so were the aspects of the fur and the skin (85% and 92% of owners satisfied, respectively). In nearly 25% of cases, the pet was calmer than usual during and even after the cleaning and brushing. This was mainly due to the fact that the process was less traumatic (no water and less constraint) and faster (around 5 minutes) than usual. Such improvement in the animal's behavior can help restore the human-animal bond that is sometimes lost with the burden of a bath on a non-cooperating animal. With no need of water and a gentle massage, the cleaning process was even regarded as a pleasant moment of complicity between the pet and its owner.

However, despite its cleaning effectiveness, it cannot replace a proper shampoo on larger dogs for example or when a deeper cleaning is necessary. The product is therefore well adapted to complement shampoos for dogs and could occasionally even be used as a replacement of shampoos for cats. It is quick and easy to use, more convenient than shampoos as no water and rinsing are needed. It is particularly adapted to clean specific body areas like limbs, back, stomach or muzzle and can be used anywhere, even during walks or just before coming into the house.

Conclusion

In conclusion, Allerderm™ foam cleanser provides a new way to clean pets and allows a more frequent and easier cleaning, soother for the pet and more pleasant for the owner. With its formula known to be well tolerated and to respect the skin of pets, it can be used with confidence on any type of skin.

Conflict of Interest

All authors are Virbac employees and the study was financed by Virbac.

Bibliography

1. Penakalapati G., *et al.* "Exposure to Animal Feces and Human Health: A Systematic Review and Proposed Research Priorities". *Environmental Science and Technology* 51.20 (2017): 11537-11552.
2. Simonato, G., *et al.* "Surveillance of Zoonotic Parasites in Animals Involved in Animal-Assisted Interventions (AAIs)". *International Journal of Environmental Research and Public Health* 17.21 (2020): 7914.
3. Carlotti DN and Gatto H. "The Art of Shampoos in Canine and Feline Dermatology: Treatment and Prevention Strategies". *Journal of the Hellenic Veterinary Medical Society* 56.2 (2017): 162.
4. Day K. "Sensitive Skin Compatibility of Micellar Water". *Journal of the American Academy of Dermatology* 76.6 (2017): AB233.
5. Taieb C., *et al.* "Interest in Micellar Solution to Reduce Unpleasant Skin Sensations". *Clinical, Cosmetic and Investigational Dermatology* 14 (2021): 1017-1022.

6. Nielloud F, *et al.* "Development of an *in Vitro* Test to Evaluate Cerumen Dissolving Properties of Several Veterinary Ear Cleansing Solutions". *Journal of Drug Delivery Science and Technology* 14.3 (2004): 235-238.
7. Rème CA, *et al.* "The Efficacy of an Antiseptic and Microbial Anti-Adhesive Ear Cleanser in Dogs with Otitis Externa". *Veterinary Therapeutics: Research in Applied Veterinary Medicine* 7.1 (2006): 15-26.
8. McEwan NA, *et al.* "Monosaccharide Inhibition of Adherence by *Pseudomonas Aeruginosa* to Canine Corneocytes". *Veterinary Dermatology* 19.4 (2008): 221-225.
9. Ibisch C, *et al.* "Upregulation of TNF-Alpha Production by IFN-Gamma and LPS in Cultured Canine Keratinocytes: Application to Monosaccharides Effects". *Veterinary Research Communications* 31.7 (2007): 835-846.

Volume 7 Issue 4 April 2022

©All rights reserved by Celine S Nicolas, *et al.*