# Compulsive acral dermatitis in a mongrel dog

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Abstract: A male mongrel dog, Labrador Retriever crossbreed, about 6 years old, after various therapies by a veterinary dermatologistis was sent to behavioral counselling for acral lick dermatitis.

Since the dog had not been diagnosed with any organic disease and had a negative neurological examination, the diagnosis and treatment were directed towards an attachment disorder and environmental anxiety with substitutive and ritualistic behaviors. Initially a nutraceutical (Calmex) for 2 weeks was prescribed and, in the meantime, the behavior modification program with the dog trainer began with bi-weekly training sessions at the owner's home.

After the first 2 weeks the dog began to interact with the dog trainer without mounting behaviors and he diminished the vocalizations in the absence of the owners but he continued to injure his skin during the night and to destroy the objects of cloth when frustrated.

In association with the meetings with the dog trainer, the owners accepted to start the drug therapy and Clomipramine was prescribed in increasing doses starting from 1 mg/kg bid in increments every 15 days up to the dose of 3 mg/kg bid.

After about 10 months the dog no longer showed compulsive licking; he learned to manage interactions with children and to move away and relax in his enclosure when he got frustrated instead of manifesting "mounts" and hyperkinesia.

Clomipramine administration was discontinued gradually according to custom.

Key Words: dog, acral dermatitis, compulsive behaviors, anxiety, phobia.

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#### Presentation

The patient is a mongrel dog, about 6 years old, male, medium / large size apparently Labrador crossed, brought into the shelter at the age (hypothesized) of 7-8 months and remained there until the age of about 3 years. Adopted by a married young couple without children, lived, together with the mother of the wife, in a villa with a large enclosed garden.

The case was sent by a dermatologist for the presence of a severe lick injury in the left carpus refractory to any medical treatment.

## History and presenting signs

Since the first day he arrived at home, the dog showed a "particular" attachment towards the wife. In her absence, the dog vocalized, and, in her presence, he showed continuous search for physical contact and attention seeking. When on a leash he was very excitable, while if left free he calmed down and explored in a more serene way.

The owners immediately noticed that the dog was very scared when bottles of sparkling wine were uncorked and if he heard the noise of applause but not if there were other types of loud noises.

Since about 1 year he started to chew and ingest pieces of fabric when he had no interaction with the owners. In the evening when he was in the living room or in the room with the owners he compulsively licked the skin of the left carpus provoking a rather extended injury (about 5 cm in diameter).

The veterinary dermatologist who visited the dog, after various therapies, managed to improve the situation only with the application of the Elizabethan collar but the problem reappeared with greater severity when the collar was removed. For this reason, the dog was sent for a behavioral consultation.

## Physical examination

The first interview took place at the clinic during non-opening hours in order to have less possible interference.

The dog showed, for the duration of the interview (about 1 hour), hyperkinetic behavior, polypnea and frequent and insistent attention-seeking behavior using his paws, stroking with the muzzle, attempting to get on the chairs with his owners.

The dog accepted interactions from the veterinarian but only for a very short time and aimed at obtaining food tidbit without crossing the eyes and without direct physical contact.

The dog had a good nutrition status, the laboratory tests for the hepato-renal function, carried out a few days before, were in the normal range. The blood cells count and blood chemistry tests were normal; the coat was shiny and thick but with a large erosive and crusty lesion at the level of the left carpus.

There were no external parasites or skin lesions in other parts of the body.

The second interview took place at home of the owners with the presence of the mother of the wife and the dog trainer with whom the author of the report usually collaborates.

In this environment, however, the dog showed hyperkinetic behavior but always when he was near to people. The dog took a blanket from his bed and began to bite and tear it, when it was removed. About 1 year before he had already undergone surgery to remove a foreign body of cloth in the intestine.

The dog manifested attention seeking with jumps to the owners and mounting attempts towards the dog trainer who was trying to interact with.

The mother of the wife referred that when her daughter and son-in-law were away, the dog began to howl after a few minutes; if he was ignored, he continued for hours and if he was recalled and put in the house with her, he calmed down for a few minutes and then he scratched the door to go back out and he started to howl.

#### Diagnosis and therapeutic program

The dog showed signs related to environmental and social anxiety, inability to cope with stress and frustration, attachment disorder, ritualistic / compulsive behaviors with alteration of the somesthesic behavior and foreign body ingestion.

It is quite common that dogs adopted from shelter (because they may have already lost the attachment figure once or more times) develop anxiety states when separated from the "new" attachment figure with vocalizations, hyperkinetic, mastication of objects (Landsberg et al., 2013).

There are environmental situations that can provoke ritualistic behaviors (boredom, separation anxiety, attention request) as well as diseases transmitted by ticks and psychomotor epilepsy (Overall, 2001).

Since the dog had not been diagnosed with any skin disease and had a negative neurological examination, the diagnosis and the treatment were directed towards an attachment disorder and environmental anxiety with substitutive and ritualistic behaviors.

Initially a nutraceutical (Calmex) for 2 weeks was prescribed and, in the meantime, the behavior modification program with the dog trainer began with bi-weekly sessions at the owner's home.

The work of the dog trainer was set on learning with mental activation exercises able to allow the dog to reach a greater emotional and cognitive autonomy even in the absence of the owners.

The co-operation of the owner's mother was also requested: it was ask to avoid punishments and to recall the dog when he vocalized after the owners left.

Following this, the extinction of ritualized behaviors was sought.

For what concerns the chewing and ingestion of tissues, games or food, that could be chewed

without danger, were provided to the dog, encouraging him to use them in times of frustration.

It was tried to encourage greater autonomy, even physical with a gradual habituation to sleep and take meals in a large enclosure next to the house without the presence of the owners.

The owner's mother said she was absolutely opposed to letting the dog sleep inside her part of the house during the night when her daughter would be abroad.

It was also suggested to prevent the dog from sleeping in the owners' room when they would be back with the adopted children.

After the first 2 weeks the dog began to interact with the dog trainer without mounting behaviors and he diminished the vocalizations in the absence of the owners but he continued to injure his skin during the night and to destroy the objects of cloth when frustrated.

In association with the meetings with the dog trainer, the owners accepted to start the drug therapy and Clomipramine was prescribed in increasing doses starting from 1 mg/kg bid in increments every 15 days up to the dose of 3 mg/kg bid (Overall, 2001).

When the dose of Clomipramine reached 2 mg/kg bid the skin lesion started to improve significantly, the vocalizations were very reduced and the interactions with the owners appeared less hyperkinetic. For this reason, this dose of the drug was maintained, always associated with weekly behavioral modification session.

The dog started to consume his meals in the enclosure without problems and during the day he often picked up the chewable toys in his mouth and took them inside the fence, remaining calm for a few hours during the working hours of the owners. They did not yet want to make him sleep at night in the enclosure.

At this point the owners had to be away for 1 month (which will become 2 actually) and the dog stayed with the mother of the owner (sleeping in her house) continuing his medication and behavioural modification sessions every 2 weeks. During the period of absence of the owners, the regularity of the meetings with the dog trainer was not respected but the use of the fence during the meal's consumption was regular. The dog had no longer licking lesions and there was the extinction of the behaviors of mounting, theft, destruction and ingestion of objects. The therapy was continued with Clomipramine 2mg/kg bid.

#### Follow up

The return of the owners with the adopted children took place at night and the dog met the whole family group. After a few minutes of excitement, the dog was put to sleep in the house of the owner's mother. In the following days the dog appeared again hyperkinetic and showed again behaviors of mounting and destruction of fabrics and objects.

A new program of intervention was set up with the dog trainer based on weekly sessions, with the gradual involvement of the children, and the use of the external enclosure also as a "private area" in which children did not have access. The interaction between the dog and the owners were also planned, both at home and outside.

In the subsequent checks it was highlighted that the dog was returning to a more stable emotional state: in fact, he appreciated the use of the enclosure to consume meals, sleep and take shelter when the environmental stimulations exceed his level of safety. The relationship with the owners was rebuilt, based on greater autonomy and self-determination of the dog who can choose to "take refuge" in the enclosure when they were absent but also when the children "exceeded" with the interactions.

After about 10 months the dog showed no longer compulsive licking; he learned how to manage interactions with the child and to move away and relax in his enclosure when frustrated.

Clomipramine administration was discontinued gradually.

#### Conclusions

In Veterinary Medicine the use of the term "obsessive-compulsive disorder" is still controversial in the case of repetitive and ritualized behaviors, also if they can compromise the relationship with the owners. Some authors prefer the term "abnormal repetitive behaviors" (Overall, 2001).

In this case the dog showed a strong anxiety both environmental and social, probably reinforced by the long stay in the shelter. The dog adopted coping strategies both to manage the frustration of the absence of the owners and when his social needs and attention were not satisfied.

The stimulation of the chewing suitable objects, different from those initially chosen by the dog, allowed to safeguard the physical health of the animal without eliminating this behavior so functional to cope with stress.

The use of the enclosure as a safe zone initially facilitated a greater emotional autonomy of the dog during meals and in the hours of separation from the owners, allowing him to manage independently the interactions with the children.

The anxiolytic drug TCA (Clomipramine) in increasing doses allowed to establish the minimum effective dose to control the anxiety of the animal. The dog reactivity was modulated, and the dog started to interact with his trainer and his owners in a quiet and relaxed way.

## **Bibliography**

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#### Un caso di dermatite acrale compulsiva in un cane meticcio

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#### Sintesi

Un cane meticcio, incrocio labrador, maschio di 6 anni circa, è inviato, dopo varie terapie, alla consulenza comportamentale da altri colleghi per una dermatite da leccamento a livello del carpo sinistro.

Il cane è stato in canile dal 2009 (anno ipotizzato di nascita) al gennaio 2012 quando è stato adottato dagli attuali proprietari.

Durante il primo colloquio i proprietari riferiscono anche che il cane ha l'abitudine di succhiare, masticare e strappare qualunque tipo di stoffa abbia a disposizione. Il cane ulula quando i proprietari sono fuori casa e ciò avviene spesso poiché entrambi i proprietari lavorano la mattina. Inoltre, il cane ruba oggetti, in particolare ciabatte di stoffa, quando tornano a casa. Molto spesso il cane manifesta comportamenti di "monta" sia verso i membri della famiglia (coniugi giovani e madre della proprietaria) sia verso gli estranei in visita.

Il cane di solito ha comportamenti di evitamento se viene avvicinato da bambini (senza aggressività) e questo comportamento preoccupa i proprietari che sono in procinto di adottare, entro poche settimane, tre bambini di 7, 8 e 10 anni. Per tale motivo i proprietari si assenteranno da casa per 2 mesi per recarsi all'estero.

L'animale mostra segni riferibili ad ansia ambientale e sociale, incapacità nel gestire le frustrazioni, disturbo di attaccamento, comportamenti ritualistici/compulsivi con alterazione del comportamento somestesico ed ingestione di corpi estranei.

Nella prima visita è prescritto un nutraceutico (Calmex) per 2 settimane e nel frattempo è iniziato il programma di gestione comportamentale con l'educatrice cinofila con incontri bi-settimanali presso il domicilio dei clienti.

Il lavoro dell'educatrice cinofila è stato impostato sugli apprendimenti con esercizi di attivazione mentale in grado di permettere al cane una maggiore autonomia emotiva e cognitiva anche in assenza dei proprietari.

Dopo le prime 2 settimane il cane ha iniziato ad interagire con la educatrice senza comportamenti di monta ed ha diminuito le vocalizzazioni in assenza dei proprietari ma ha continuato a lesionarsi la pelle durante la notte e a distruggere gli oggetti di stoffa nei momenti di frustrazione.

I proprietari accettano di iniziare la terapia farmacologica e viene prescritta clomipramina a dosi crescenti partendo da 1 mg/kg bid con incrementi ogni 15 giorni fino ad arrivare alla dose di 3 mg/kg bid (1).

Alla dose di 2 mg/kg bid la lesione da leccamento comincia a migliorare sensibilmente, i vocalizzi sono molto ridotti e le interazioni con i proprietari appaiono meno ipercinetiche per cui questa dose del farmaco è mantenuta, sempre associata agli incontri settimanali con l'educatrice cinofila.

Dopo circa 10 mesi il cane non ha più manifestato leccamento compulsivo, ha imparato a gestire le interazioni con i bambini e ad allontanarsi e rilassarsi nel suo recinto quando entra in frustrazione invece di manifestare "monta" ed ipercinesi.

La somministrazione di Clomipramina è stata interrotta gradualmente secondo le consuetudini.