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Skin and nervous system derive both from the same embryonic tissue: the ectoderm. The functional relationships between those two tissues are well known and described in human medicine, even if there are still some burning controversies regarding the underlying mechanisms leading from psychological disorders to dermatological symptoms. In veterinary medicine, it is still questioned. The relationships between anxiety-related disorders, excessive licking and dermatological disorders are now well accepted1, 2, 3, 4, but the possible influence of emotional disorders on the evolution of atopy or other dermatological conditions is much more controversial5. However, our current approach of the relationship between behavior and skin is always a single-sense approach: psychological disorders influence the skin, leading to dermatological disorders. Such an approach is excessively simplistic and ignores some of the crucial functions of the skin:

- The skin is a sensory organ: dermatological conditions will impair this function.
- Some glands, especially sebaceous and sudorous, release odorous secretions which play a major role in chemical communication6. Any infection or biochemical impairment will disorganize this function, leading to abnormal social reactions. Dermatological conditions can induce pain reactions which are well identified as major causes for stress.

**Behaviour-Related Skin Disorders:** they are usually related to anxiety. According to current understanding of those disorders, we can divide this group in two subgroups taking in account the functional link between the behavioural cause and its dermatological consequence. Skin disorder induced by excessive self-licking or scratching. Those disorders have been described in both dogs and cats. In dogs, they are described under the name "acral-lick dermatitis"6. The lesions are usually observed on the legs, flanks and tail, beginning on the left side of the body in 70% of the clinical cases7. The spontaneous evolution of the disorders leads to an extension of the lesions which may be, then, observed on every accessible part of the body. In cats, such behaviours lead to "extensive alopecia" or "granulomas"8, 9.

In both dogs and cats, the differential diagnosis is a major concern8. When the lesions can be regarded as somehow typical, the situation is really different in cats, extensive alopecia being first a typical consequence for flea allergy or other allergy-related disorders. Such a situation has led many authors in proposing the diagnostic “behaviour-related skin disorders” as an exclusion diagnostic: if you fail in finding a physical cause, it might be a behaviour problem. Such an approach cannot be accepted in modern medicine and a positive diagnostic may be accessible by taking in account the other symptoms which are typical for anxiety. Thus, the clinical approach will take in account the other behavioural signs (impaired scanning behaviour, inhibition, fear-reactions, fear-aggressions, impaired sleep) as well as the biological indicators: prolactin, ACTH, cortisol, neutrophils to lymphocytes rate. If there is no evidence for anxiety, the skin disorders have probably no relationship with the behaviour.

Skin disorders related to chronic stress: this is more a hypothetic group. Many authors have described, in different species, the consequences of chronic stress: impaired immune system, hyperesthesia, modified cell-renewing, modified sebaceous and sudorous secretions10, 11, 12. Such phenomena should play a role in the evolution of atopy, allergy, seborrhea or pyodermitis. From a pragmatic point of view, it makes sense to look at the possible signs for chronic stress and to treat possible underlying anxiety in dogs and cats suffering such skin disorders.

**Skin-Related Behaviour Disorders:** according to our current understanding, we can identify three groups of disorders:

- Semiochemical disorders: the word "semiochemicals" is the name for the odorous secretions playing a major role in chemical communication (the pheromones belong to this group). Any disorder affecting the glands releasing such secretions (with hormonal or infectious causes), may impair the intraspecific communication. The inflammation of the anal sacs, in dogs, is one of the most famous disorders within this group7.
- Pain-related disorders: observed in dogs and cats suffering pyodermitis, violent pruritus or otitis externa. Behaviour disorders will include aggression, anxiety and depression.
- Tactile-impairment related disorders: it seems to be more a “feline problem” with an impairment of predatory behaviour as a consequence for the impairment of the tactile capabilities.

**References**

The activation of the autonomic system is a common mechanism in stress-related reactions and other anxiety-related problems. Depending on the species, the physiological consequences can deeply differ. When horses have been described for displaying severe modifications of the heart-rate, dogs and cats seem to display more digestive and urinary reactions. Whatever the cause for an emotional reaction, it usually includes autonomic modifications which may play an adaptive role for coping with a hostile surrounding. On the contrary, when the autonomic signs are frequently observed, the clinician must value this information as a significant symptom for diagnosing anxiety-related disorders. The clinical approach is sometime very easy when those signs are observed associated with behavioural signs (aggression, threats, inhibition, panic, …). On the contrary, the clinical approach will be more difficult when the autonomic signs are the only owners’ claim and when they fail in describing, spontaneously, any other sign.

**Autonomic Disorders in Cats:** digestive and urinary disorders are very commonly observed in this species. The recent development of our understanding of the interstitial cystitis is a good example for this group of disorders. Anyway, the common point between all those patients is an underlying emotional disorder and more specifically anxiety. The diagnostic is obtained thanks to a behavioural approach that will lead to identify fear-related behaviours, to the biological approach (hormonal indicators, white blood cells) and to an “ecological” approach taking in account the organization of the surrounding (location of the resources, density of population, …).

**Autonomic Disorders in Dogs:** the digestive signs are very commonly observed. Some authors have described a predisposition in some groups of breeds and especially in the molossoid dogs and some shepperds (e.g. German shepperd). The colic part of the gut is more specifically affected leading to diarrhea, meteorism and sometimes vomiting. Such dogs are usually first treated by colleagues working in general practice or specialized in internal medicine, with a diagnostic of “idiopathic” colitis. The behavioural approach will usually describe a typical context of anxiety which may be a consequence for both development-related disorders or social miscommunication.

**Treatments:** the specific treatment of the underlying behavioural problem needs a precise clinical approach and tailored behaviour-modification program. The pharmacological approach plays a major role in improving the comfort of the patient and a control for future spontaneous worsening. In cats, amyttryptilin and SSRIs have been proposed in the treatment of idiopathic cystitis. Pilling a cat is usually done by administering the facial pheromone F3 (Feliway®). The colic part of the gut is more specifically affected leading to diarrhea, meteorism and sometimes vomiting. Such dogs are usually first treated by colleagues working in general practice or specialized in internal medicine, with a diagnostic of “idiopathic” colitis. The behavioural approach will usually describe a typical context of anxiety which may be a consequence for both development-related disorders or social miscommunication.
to be crucial in such patients, may be obtained thanks to the use of selegilin (Selgian®). As in cats, the pheromonotherapy is effective and DAP has been shown to be extremely effective in both treating and preventing the digestive symptoms related to stress and anxiety (Gaultier et al., in publication).

**References**


**Differential Diagnosis in Housesoiling Cats**

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Housesoiling is considered as the most commonly observed behaviour disorder among cats. According to most of the published studies, being a very clean pet is regarded as the main quality of the cat by owners. Thus, every disorder which will include soiling is regarded as specially unacceptable and bothering by our clients. Housesoiling cats cannot be regarded as a homogenous population since it is a collection of very different cases. According to the ethological criteria, it is possible to identify 3 main groups of behaviour problems between them. Under the qualification of housesoiling cat, the vet will be supposed to distinguish soiling related to inappropriate elimination from emotional urination and/or defecation and urine marking behaviour (spraying). In each of these groups, owners have more or less the same claims but the behaviour of the cat is completely different and related to very different conditions. Thus, the way to treat each of them is really different and adapted to the specific condition of the cat. This lecture will try to provide a pragmatic and precise approach to these disorders.

**The “soiling behaviours”:**

According to its way to behave and its adaptation, the cat emits urines and faeces in three different situations:

- **Elimination:** means the physiological behaviour to eliminate the content of the bladder and rectum. This is a very typical behaviour which occurs as a response to the excitement of some receptors which are inside the wall of the bladder or the rectum and detect their fullness. Being stimulated this way, the cat looks for an adapted place which has to be safe (not to easily found by conspecifics nor other individuals of any specy), dry, and is a light soil (sand for example). The cat begins by smelling the surface and turns softly to crouch in the right position. The tail is deviated on the left or right and shaking. Just after the elimination, the cat smells the elimination and covers it with the soil. Each cat uses only one or a few elimination areas. This behaviour is acquired by experience and imitation of the mother around 6 weeks of age.

- **Emotional elimination or defecation:** it is rarer in the cat than in the dog. This is a neurovegetative reactions related to fear. Most of the time is associated to the release of the content of the anal sacks. These eliminations are emitted during the cat is running or jumping and the soiling is characterised by small spots of urine and amounts of faeces spread here and there across the cat’s run.

- **Urine marking:** this behaviour is very identified by most of the cats’ owners. The cat is standing, with shaggy hairs on the back, a vertical tail and can vocalize (e.g. during sexual marking in both males and females). He selects a vertical surface located on a very visible place from every way you use to arrive in this part of the territory. The cat turns its perineal area in direction of the selected place and then shows a typical excitement. The tail shakes as well as the legs and the back and the cat sprays a small amount of urine on this vertical surface.

When we know these behaviours, it is really easy to find the clinical approach for a precise diagnosis of the behaviour which responsible of the soiling. It is very important to keep in mind that these three behaviours can be induced and enhanced by many physical conditions and specially those including an inflammation of the low urinary tractus. Thus, a complete and precise physical examination associating an urinanalysis is essential to find the relevant diagnosis.
The steps of the Diagnosis:
To avoid any misinterpretation of the situation, the vet can follow this plan:

Question 1:
- Soiling limited to or including vertical surfaces → question 2
- Soiling only on horizontal surfaces → question 5

Question 2:
- Soiling limited to vertical surfaces → Urine marking → question 3
- Soiling on both horizontal and vertical surfaces → question 4

Question 3:
- Urine marking in a tomcat, limited to the close environment of a door or a window / or urine marking in a queen, limited to the clothes of an adult male owner (or to a place where a male mammal stays) → sexual urine marking
- Urine marking observed on several places which are regularly remarked → territorial urine marking

Question 4:
- Urine marking and small spread amounts of urine and/or faeces (sometime diarrhoea) on horizontal surfaces → territorial urine marking associated with emotional elimination: most of the time it is a symptom of a territorial disturbance related anxiety (introduction of a new individual whatever the specy, or severe modification of the territory such as rehoming, ...)
- Urine marking and elimination of full bladder and/or full rectum content on a light soil area (bed, carpet, sofa, ...), urine marking being the one which occurred several weeks or months before → Chronic urine marking and secondary inappropriate elimination. Common evolution of territorial competition.
- Urine marking and elimination of full bladder and/or full rectum content on a light soil area (bed, carpet, sofa, ...), elimination being the one which occurred several weeks or months before → Chronic inappropriate elimination and secondary urine marking. Common evolution of problems related to a poor cleaning of the litter box or a competition around the litter (too much cats or too many entire adults).

Question 5:
- Small spread amounts of urine and/or faeces (sometime diarrhoea) on horizontal surfaces → emotional elimination. Rare when alone, related to generalised anxiety.
- Elimination of full bladder and/or full rectum content on a horizontal area (bed, carpet, sofa, ...) → elimination → question 6

Question 6:
- The cat has always eliminated in inappropriate areas → Question 7
- The cat was first a good cat, elimination in the litter → question 8

Question 7:
- The elimination has always been observed on any horizontal surface, several places are used a light soil is not necessary → complete lack of maturation of the elimination behaviour. Commonly observed in kittens obtained from “intensive breeding” in inappropriate crates (no litter).
- The elimination has always been observed on any horizontal surface, usually several places with a light soil and the elimination is not covered → lack of maturation of the elimination behaviour. Most of these cases are observed when the kitten is separated too early from the mother.

Question 8:
- The owners have change the brand of the litter soil, the type of litter box, the cleaning product, the place of the litter box → reactional inappropriate elimination. The owners have disorganised the elimination behaviour.
- Less than one litter box per cat, or all the litter boxes in the same place, or puberty newly occurred in one of the cats (male or female): competition for the litter boxes.

Conclusion: using this approach it is really easy for the vet to identify the most common causes of housesoiling and then to provide an adapted treatment. Early treatment of such problems is the best way to succeed and to maintain a good relationship between cats and humans.

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Pageat P. In Landsberg G, Hunthausen W, Ackerman L. Handbook of behavior problems of the dog and cat. Saunders, Toronto, 2003; 455-483
THE ROLE OF ATTACHMENT IN THE SOCIALIZATION TO HUMANS AND IN BEHAVIOURAL PROBLEMS
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Attachment and Imprinting Processes
During the development of the puppy, the transitional period is especially the moment when the pup will become attached to its mother and when it will start to be subjected to the imprinting process. The pup’s new sensory equipment will help it gather new information about its mother. It progressively memorises body smells, and then sound characteristics that help shape a specific image of her. She alone is able to comfort the pups, as she becomes the reassuring marker around which exploratory development will progress. It is also with her, that sleep may occur with all the pups gathered in a heap. The attachment has thus become mutual: any attempt to prevent contact induces a state of distress that is expressed by unrest and the production of vocal crying by the mother and her pups. If separation is maintained, sleeping troubles as well as anorexia will quickly appear. Attachment seems to be the indispensable corollary to a good imprinting progress. The outcome of imprinting is vital since this very specific “training” is the origin of the identification of a fellow creature, i.e. of the social and sexual partner.

Detachment
This is a decisive event in the pups’ socialisation. Although no study has helped to determine very precisely at what age detachment begins, it can be said that some consensus exists between different authors who locate it during the period following the eruption of the milk teeth. Painful nursing might be the trigger which distances pups from their mother. It probably involves hormonal, affective and cognitive mechanisms. One could wonder whether the pups’ morphological modifications do not alter their capacity to trigger mothering behaviour which could explain why the bitch becomes less tolerant.

This first distancing continues in a different way for male and female pups. It would seem that the bitch starts to rejects her sons earlier than her daughters. This second phase, apparently, is contemporaneous to puberty changes and could originate in the production of sexual pheromones by adolescent pups. Considering the importance and function of the attachment bond, one could expect the break to be the source of profound distress with adolescent dogs. The many attempts by some pups to get back to their mother seem to point in that way. However, this state does not persist. On the other hand, artificially maintaining the attachment bond, commonplace with pet dogs, is the source of serious disorders and the blocking of the development of social abilities (see below).

In fact, it would seem that pups move from an exclusive attachment to the mother to an attachment to the social group, where this attachment is supported by the pack’s own rituals.

Separation Anxiety
The dog is presented for consultation because of the production of disturbing behaviours when separated from its owners. We then observe furniture destruction, vocalisation, micturition and defecation spread throughout the home, and sometimes vomiting or an intense ptyalism. Some dogs may develop a lick granuloma, bulimia or potomania. It may occur when the owners are absent, during the night if the dog sleeps in a separate, or even during. These dogs are described as “very clingy”, they follow one or several family members step by step; it is usual to hear that the dog tries to enter the toilet with them, and cries behind the door when it is not let in. These manifestations can be observed while the dog is with someone other than the person it always follows, since solitude is not the triggering stimulus. In fact, if the investigations are pushed further, we can observe that the dog organises all of its activities around that person, and will only sleep next to that person. These are the manifestations of a state of hyper-attachment.

When it is sold, the pup, usually aged 2 to 3 months, is still in a state of hyper-attachment to its mother. Separation occurs during the period when the pup is dependent on this link to give it a “reassuring base” and to develop all its behaviour. This break induces a well-known phase of distress during which the young animal whines at night, looks for its mother, and eats little. The establishment of a new attachment bond with one of the owners solves this distress. This is, usually, the person who provides the pup with vital care (food, body care, etc.), but also who tries to appease it by stroking it, and thereby becomes the new being of attachment. The relationship has more chances of developing with them when this person also develops an attachment bond, which, usually, happens against the background of a mothering relationship sought by a family member. This new attachment is positive for the pup, and it helps it achieve full development. But, we have also seen that attachment only function well on condition that its corollary (detachment) also exists. If the bitch systematically triggers this break, the same does not go for the people who are “attached” to their dog. Far from inducing this distancing, whose necessity they are not aware of, they continue to respond to the requests.
of the now pubescent dog and so make it move into a state of affective dependency which lays the foundation for separation anxiety. When this hyper-attachment is established, some distress signals, which are normal during the separation of pups in their infantile period, instead of being progressively attenuated, increase and lead to the clinical picture we have described.

References
1 Lorenz K Der Kumpan in der Umwelt des Vogels. J Ornith 1935;83:137-413

INTER AND INTRASPECIFIC COMMUNICATION: A BASIS FOR WELFARE
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Introduction
According to Lorenz in his famous description of the functions of rituals in social life, communication plays a major role in controlling the arousal of agonistic behaviours. This intraspecific communication goes through the sensory channels and is built with different kinds of signals like pheromones, odours, sounds, vocalizations, postures, movements and disclosure of coloured parts of the body which are usually hidden. Each individual learns the ways to produce and understand this communication during the behaviour development. Communicating is not limited to individuals from the same species, predators and preys, parasites and hosts, mutualism, humans and domestic or captive animals: everybody communicates. The goal of this communication seems to be extremely variable: the prey produces some messages which disorganise the strategy of the predator: distraction display or protean behaviour; the partners of mutualism use some specific messages which decrease distress or aggressive reactions (e.g. between the “cleaning fishes” and their partners, etc.). The common point between these various examples, is a control of the distress reactions, whatever the context. Dogs, living with humans for 13,000 years, have developed a high capability in catching and analyzing human communication. On the contrary, humans, living less and less in touch with animals and wildlife, have lost some skills that were, in the past, transmitted from generation to generation as a part of traditions. A significant part of the clinical problems observed between dogs and owners in clinical practice, are related to miscommunication.

Some Common Examples of Miscommunication
For a long time, humans have had no idea about the sophisticated communication used by the animals. The buildings, crates, pens, where we keep them, are usually built according to hygienic, safety and economical criteria. The way to breed our domestic animals sometime leads to a lack of communication skills as a consequence for a disturbed development: becoming adults, these animals do not have learned their intraspecific communication. Following these common mistakes in the management of animals, we observe six different communication problems:
• lack of intraspecific communication skills related to inappropriate socialisation
• the reception of the message is impossible
• the response is impossible to produce
• it is impossible to discontinue the interaction
• misinterpretation
• unintentional communication

Lack of intraspecific communication skills related to inappropriate socialisation
This is a very common situation in both pets and livestock species. In dogs and cats, the early separation from the mother as well as the lack of contact with other adults (to prevent possible aggressions, transmission of infectious diseases, ...) leads to poor social skills, common aggressive reactions, emotional instability and a tendency to be overattached to some people or animals from their surrounding. In other species like horses, parrots or wild animals kept in zoos, the same symptoms are observed and the sexual and nursing behaviours are impaired.

The Reception of the Message is Impossible
This is a common situation in horses, livestock species and wild animals in captivity. The structure of the buildings where the animals are kept makes the reception of communication impossible. This is especially true for chemical and visual communication and sometime for the vocalizations. The walls, the windows, are sometime too high or too effectively isolated against the sounds, the air flow system extracts too effectively the air, venting the odorant messages. It leads to a situation of social isolation which is usually responsible for repetitive, self-directed behaviours.

The Response is Impossible to Produce
Some of the usual ways to manage animals disturb
deeply the communication by making the response to some received message, impossible. The leash in dogs, the halter for horses, the window through which the cat is just capable to look at a conspecific being in its territory, the organization of some barns, crates or pens, limits the movements of the animals and inhibits the production of the appropriate behaviour.

**It is Impossible to Discontinue the Interaction**
This is a common and crucial problem regarding intra and interspecific communication, that is observed with every kind of species. Barns or kennels where the animals are kept face to face without any place to hide. The same phenomenon has been observed in zoo animals. Even with wild species socialised to humans or trained to accept the proximity of humans, the continuous visual contact leads to distress, stereotyped behaviours and physical disorders.

**Misinterpretation**
Is mainly a problem regarding interspecific communication with humans. The ignorance of some pet owners regarding their companion animal behaviour and communication, is probably the main cause for anxiety and aggressions. Misinterpretation is deeply involved in so-called dominance problems as well as in interdogs problems. This is a daily observation in veterinary practice to listen to the claims of some dog owners, convinced that their dog is aggressive because it barks each time it sees another dog.

**Unintentional Communication**
Is mainly observed in interspecific communication with some unintentional signals produced by humans but can be observed between animals. Two kinds of such communication are observed in practice: unintentional visual signals (mainly emotional signals) and unintentional chemical signals. The visual unintentional signals are commonly observed during conflicts with the animals but can be a consequence of a situation of misinterpretation.

Unintentional chemical communication has been recently described in pets. When observed between humans and animals, it involves some chemical components from cosmetics used by the owners. Methylparabenzoate, the main component of a pheromone secreted by bitched during oestrus, is also used as a preservative in cosmetics. The perception of this component by males dogs induces sexual excitement. Between dogs, it has been shown that some infections in the anal sacks, can produce abnormal secretions usually observed in female dogs during oestrus too. The male dogs suffering such an infection can be sexually harassed by the other males, leading them to show aggressive reactions.

**Practical Strategies**
Distress with all its usual consequences is the main consequence when the communication is disturb. It is thus crucial to become conscious of it and take it in account when counselling breeders, owners, riders, people working in a zoo. By creating an environment that makes communication possible according to the needs of each species is a necessity. It has to be regarded as a part of the territorial enrichment. As a consequence of this possible communication, we have to provide facilities to help the animals in discontinuing the communication when needed.

Using some lures is another way to provide some communication when there is no possible access to conspecifics. CDs of animal vocalisations, synthetic analogues of pheromones, can be very effective. According to the recent studies published by Plujimakers, Appleby and Bradshaw, it could be interesting to use videos to replace the absent conspecifics.

In specialised clinical practice for behaviour problems, the evaluation of the intra and interspecific communication has to be a systematic point in the check-list each practitioner uses.

**Conclusion**
Communicating is quite as important as breathing, drinking or eating in living creatures. When some circumstances makes it impossible, the consequences of this loss won’t be as quickly and dramatically observed as for the other needs, but it will deeply and durably impair the social life and the emotional equilibrium of the animals. The current attitude of humans, trying to ensure that every animal kept by humans is in acceptable welfare conditions must include the need of communication and ban any technique or approach that impairs or inhibit the communication.

**Bibliography**
THE AGGRESSIVE CAT
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Aggressive reactions in cats as well as in dogs, are very impressive behaviours that could induce severe injuries for humans. Even if it looks as a group of very typical signs, aggressions are not specific of any behavioural nor physical condition and as symptoms, they only make sense when related to the other clinical signs. In clinical practice, the strategy of the vet must include two main steps: identifying the type of aggressive reaction and looking for the other clinical signs (physical and behavioural).

Identifying the Aggression:
Several authors have proposed classifications and descriptions of aggressive behaviours in cats. Some of these descriptions are not adapted to the clinical purpose because their criteria include a very precise description of each step of the behaviour sequence and thus, a good videotaping of the aggressions is necessary to make the identification possible. Some other authors have proposed less precise classifications which are more adapted to our practice. The one we propose in this lecture is inspired of several authors and is used in several countries of Europe. The criteria of identification are summarised in the following table.

<table>
<thead>
<tr>
<th>Type of aggressions</th>
<th>Description</th>
<th>Traps for the vet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predation-related aggression</td>
<td>Cat hidden, more and more excited by moving stimuli. Attacks suddenly, blocks the prey with the claws, pushes the prey up and down, finally blocks it and multiple bites.</td>
<td>Confusion with territorial aggression because of the sudden attack in cats with chronic territorial competition. In these cases, the cat does not try to block they challenger but to run after him.</td>
</tr>
<tr>
<td>Fear aggression</td>
<td>Cat cornered, hissing, shaggy hairs on the back, mydriasis, unpredictable and uncontrolled aggression.</td>
<td>Irritative aggression: but the cat rolls on the flanks in this aggression and shows the claws of the four legs and the teeth.</td>
</tr>
</tbody>
</table>

After this identification, the vet will study the association with other symptoms. Most of the aggressive reactions of the cats are related to physical condition, anxiety, territorial competition or lack of interspecific socialisation.

The aim of this examination is to identify the signs of phobia, anxiety, disturbance in the territory and poor interspecific socialisation. The signs are scored F for fear, A for anxiety, I for inhibition. The total number of F, A or I, with some modulation using informations given by the owners, helps in evaluating the cat.

Observation of the Free Cat
The owners are asked to let the cat free in the corner of the examination room which is the longer way from the vet’s desk. Two elements are used to familiarise the place: some fresh food (kitten food which is more attractive) and the open transport crate of the cat. During 5 minutes, the vet observes the cat and discusses with the owners to avoid them to interact with the cat. He uses the following evaluation form.
### Physical Examination

It is a classical physical examination but the vet will take care of some specific symptoms and behaviour reactions. The evaluation is divided between physical and behavioural signs. Physical signs include the neurovegetative signs which have been identified previously.

#### Physical signs

<table>
<thead>
<tr>
<th>Signs</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onychophagia on the forelimb, specially on finger n°1</td>
<td>A</td>
</tr>
<tr>
<td>Extensive alopecia or licking granuloma without any identified somatic cause</td>
<td>A I</td>
</tr>
<tr>
<td>Rolling Skin syndrome</td>
<td>F A</td>
</tr>
<tr>
<td>Obesity (without any identified cause)</td>
<td>A I</td>
</tr>
<tr>
<td>Frequent diarrhea</td>
<td>F A</td>
</tr>
<tr>
<td>Idiopathic cystitis</td>
<td>A</td>
</tr>
<tr>
<td>Sweat from paw pads (keep the cat on a cold surface like an inox table)</td>
<td>F A</td>
</tr>
</tbody>
</table>

#### Behaviour signs

<table>
<thead>
<tr>
<th>Reactions</th>
<th>Intermittent</th>
<th>Continuously</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mydriasis</td>
<td>F A</td>
<td>A I</td>
</tr>
<tr>
<td>Myosis</td>
<td>F</td>
<td>A</td>
</tr>
<tr>
<td>Alternates continuously mydriasis and myosis</td>
<td>A</td>
<td>A I</td>
</tr>
<tr>
<td>Panting</td>
<td>F</td>
<td>A</td>
</tr>
<tr>
<td>Ptyalism</td>
<td>F</td>
<td>A</td>
</tr>
<tr>
<td>Walking up an down without any organised exploration</td>
<td>F A</td>
<td>A</td>
</tr>
<tr>
<td>Hissing when someone moves in the room</td>
<td>F A</td>
<td>A</td>
</tr>
<tr>
<td>Hiding in a corner and watching (face visible)</td>
<td>F A</td>
<td>A I</td>
</tr>
<tr>
<td>Hidden in a corner but face hidden too (invisible)</td>
<td>A</td>
<td>A I</td>
</tr>
<tr>
<td>Hides in his transport crate and does not move anymore</td>
<td>F A</td>
<td>A I</td>
</tr>
<tr>
<td>Shakes for any noise</td>
<td>F</td>
<td>A</td>
</tr>
<tr>
<td>Self-grooming after any strong reaction (shaking, hissing, …)</td>
<td>A A I</td>
<td></td>
</tr>
<tr>
<td>Upper position, fixed mydriatic eyes on every people inside the room, folded ears</td>
<td>F A</td>
<td></td>
</tr>
<tr>
<td>Labial licking</td>
<td>F A</td>
<td></td>
</tr>
</tbody>
</table>

### Questionnaire for the owners

<table>
<thead>
<tr>
<th>Question/Answer</th>
<th>Sometime</th>
<th>Often</th>
<th>Continuously</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your cat spray? Yes</td>
<td>F</td>
<td>F A</td>
<td>A</td>
</tr>
<tr>
<td>Does your cat scratch a wall or a furniture (in particular) ? Yes</td>
<td></td>
<td>F A</td>
<td>A</td>
</tr>
<tr>
<td>Does your cat scratch several walls or furnitures ? Yes</td>
<td></td>
<td>F</td>
<td>A I</td>
</tr>
<tr>
<td>Does your cat eliminate elsewhere than in the litter box ? Yes</td>
<td></td>
<td>F</td>
<td>A I</td>
</tr>
<tr>
<td>Does your cat eat regularly ? No</td>
<td></td>
<td>F</td>
<td>A I</td>
</tr>
<tr>
<td>Does your cat eat exclusively during the night ? Yes</td>
<td></td>
<td>F A</td>
<td>A I</td>
</tr>
<tr>
<td>Is your cat hidden most of the day ? Yes</td>
<td></td>
<td>F A</td>
<td>A I</td>
</tr>
</tbody>
</table>

The following informations will be helpful:
- other animals living in the same home ?
- Number of litter boxes, number of meals, number of plates, number and where are the place to sleep ?
- Management of the litter boxes (how often are they cleaned and how) ? Where are they located regarding the doors and the other animals of the family.
Then count the number of F, A et l.

<table>
<thead>
<tr>
<th>Total</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 F</td>
<td>Fearful cat: enrich the environment</td>
</tr>
<tr>
<td>Only F (&gt; 5)</td>
<td>Phobic cat: desensitisation +/- pheromonotherapy</td>
</tr>
<tr>
<td>Some F and less than 5A</td>
<td>Severe phobia: counterconditioning + pheromonotherapy</td>
</tr>
<tr>
<td>Most scores are A without l</td>
<td>Intermittent anxiety: pheromonotherapy</td>
</tr>
<tr>
<td>Most scores are A with at least 3l</td>
<td>Chronic anxiety with inhibition: selegiline + pheromonotherapy</td>
</tr>
<tr>
<td>More than 3l and As</td>
<td>Depression: antidepressants</td>
</tr>
</tbody>
</table>

Overall references