

Proposed guidelines on the management of Feline Chronic Gingivostomatitis (FCGS) syndrome: a consensus statement

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Panel Members:

Guy Camy (France)
Peter Fahrenkrug (Germany)
Margherita Gracis (Italy)
Philippe Hennet (France)
Norman Johnston (UK)
Susann Mihaljevic (Germany)
Jan Schreyer (Germany)

Summary:

The condition widely known as Feline Chronic Gingivostomatitis (FCGS) syndrome can be frustrating and difficult to manage. Many contradictory statements are made, and the general practitioner may find the result extremely confusing to the detriment of their good clinical practice and therefore also to the detriment of the welfare of their patients. It would be a benefit to the profession as a whole to have some guidelines to enable the general practitioner to confidently approach these cases in an appropriate manner, and to know when a referral should be offered. The panel convened in order to discuss, debate and achieve a consensus position (or in absence of a consensus, provide a statement of the opinions of those present) based on the principles of Evidence Based Medicine. In this context, greatest weight is given to the published peer-reviewed literature, most especially randomised controlled trials. In the absence of such data, the opinions of specialists with experience in the field can still provide useful guidance for general practitioners faced with challenging cases.

It will be obvious that the points made in these guidelines began as suggestions by individuals. However, these points were then debated and refined by the entire panel meaning that there were multiple contributions to each point. Thus in these guidelines it is the position of the group which is represented where possible.

Disclaimer:

As there are no medical treatments specifically licensed for the management of this syndrome, it must be understood that drug options mentioned in these guidelines represent off-label use, and appropriate client consent should be obtained.

Definition:

There is a need to agree on suitable terminology in order that the differing clinical scenarios – potentially requiring different management options – can be accurately identified. In the literature the term FCGS is the main one used. However this is a poor term and badly defined. As a result, when the inclusion criteria of several published studies which use this name are examined it will be seen that many different conditions could have been included under this umbrella term. For example, cases affected simply by gingivitis and periodontal disease are included in some. However, in this context there is a need to clearly state that *although gingivitis and periodontal disease do not in themselves constitute a diagnosis of FCGS syndrome, the management of these and other complicating factors are of course essential to successful management of the syndrome.*

The joint AVDC/EVDC Nomenclature Committee have already decided on relevant descriptive terms, including¹:

- 1) Caudal Mucositis: inflammation of the mucosa of the caudal oral cavity, bordered medially by the palatoglossal folds and fauces, dorsally by the hard and soft palate, and rostrally by alveolar and buccal mucosa.
- 2) Alveolar Mucositis: inflammation of the alveolar mucosa (i.e., mucosa overlying the alveolar process and extending from the mucogingival junction without obvious demarcation to the vestibular sulcus and to the floor of the mouth).
- 3) Labial/Buccal Mucositis: inflammation of lip/cheek mucosa.
- 4) Contact mucositis and contact mucosal ulceration: lesions in susceptible individuals that are secondary to mucosal contact with a tooth surface bearing the responsible irritant, allergen, or antigen. They have also been called “contact ulcers” and “kissing ulcers”.
- 5) Stomatitis: inflammation of the mucous lining of any of the structures in the mouth; in clinical use the term should be reserved to describe widespread oral inflammation (beyond simply gingivitis and periodontitis) that

may also extend into the submucosal tissues. Thus caudal mucositis with extensive or deep inflammation would be termed caudal stomatitis.

While some members of the group felt that the ideal situation would be to use only these different names to emphasize that there are actually different disease scenarios, it was also felt that the retention of the umbrella term FCGS as a *syndrome* was beneficial for purposes of simplicity in practice. However, within the syndrome of FCGS, it is essential to make a clear distinction between the two recognised forms (i.e. with and without caudal mucositis/stomatitis).

It was agreed that in cats with oropharyngeal inflammation, the presence or absence of caudal mucositis/stomatitis is an important factor for prognosis and treatment, and in this context there was also a consensus that in general the most difficult to manage cases were those which included caudal mucositis/stomatitis.

Thus, after significant discussion, there was unanimous agreement that it was appropriate to use the umbrella term FCGS Syndrome and subdivide this into

Type 1: cases with alveolar and labial/buccal mucositis/stomatitis only and

Type 2: cases with caudal mucositis/stomatitis (with or without alveolar and labial/buccal mucositis/stomatitis).

These guidelines mainly focus on the management of cases affected by caudal mucositis/stomatitis, with or without alveolar and labial/buccal mucositis/stomatitis, as they form the most challenging group.

Aetiology:

It was agreed that *according to the currently available knowledge there is no agent with a cause and effect relationship to this syndrome.*

It was also agreed that this syndrome could essentially be thought of as an individual inappropriate immunological response from the cat to a variety of antigenic triggers rather than in terms of specific casual agents. Other cats are able to react to these antigens in a normal way without developing the syndrome.

However, in the opinion of some, there is a need for caution against simply classifying this as an excessive immunological response, which is a very broad term, because this has sometimes led to the excessive use of immunosuppressive options. The precise nature of, and reasons for, this aberrant response have not yet been fully elucidated.

Nevertheless, *in order to achieve good control of the syndrome, it is essential to identify these antigenic trigger factors so they can be appropriately managed.* Various possible options were considered.

Bacteria:

Various studies have been published on the subject of the bacterial flora of normal and diseased cat mouths^{2,3,4}. Some evidence exists for an association with increased numbers of some anaerobic species in FCGS syndrome cases⁴, and a recent study in a small number of cats highlighted a possible association with increased levels of *Pasteurella* species, commonly *P. multocida*, against a background of decreased variety in the bacterial flora⁵. However there is no evidence of a specific causal effect for any bacterial species, and the previously suspected role of *Bartonella* appears to have been disproved^{6,7}.

Despite this, there was consensus on the fact that *plaque bacteria, although not a primary cause of the syndrome, remain relevant, and must be managed in order to achieve good control of the symptoms.* Bacterial growth can undoubtedly provide antigenic stimulation in these cases.

Parasites:

There is no evidence for a relationship to parasite infestation or infection. In the absence of more data becoming available these are not relevant to management. However, due to the potential impact on the immune system of chronic parasitosis, it is appropriate to ensure that if a cat may be suffering from a significant parasite burden it should be treated appropriately for this.

Fungi:

There is no evidence for a relationship to fungal/yeast infection. In the absence of more data becoming available these are not relevant to management.

Viruses:

These can be considered under the groups of retroviruses, upper respiratory viruses and other viruses.

Retroviruses:

Studies have shown no difference in the prevalence of FIV in cats with FCGS syndrome compared to the general population⁶. Infection of SPF cats with FIV has not resulted in FCGS syndrome. However stomatitis may be the first sign of FIV and/or FeLV infection. Waters *et al* reported the development of FCGS syndrome in a colony of cats already infected with FIV upon accidental introduction of FCV into the colony⁸. The cats which had both viruses appeared to suffer worse symptoms. This raises the question of whether it is the virus itself that provides the trigger or the secondary immunosuppression it induces. Although the prevalence data and other literature does not support the conclusion that FIV is a cause, there was a majority opinion that presence of FIV seems to be associated with more severe lesions in the clinical experience of members of the group. Despite the fact that there was not a full consensus opinion on the relationship of FIV with severity of the syndrome, there was a consensus that *immunosuppression* due to FIV or FeLV infection is likely to be relevant to the condition. Some members of the group also expressed the opinion that, in their experience, cats with FIV seemed to respond better to therapy with immunomodulation despite initially more severe symptoms. In the absence of studies, this remains anecdotal.

Respiratory Viruses:

Calicivirus: The association between FCGS syndrome and calicivirus was finally confirmed in 1992⁹. Acute episodes of caudal mucositis/stomatitis can be induced experimentally by infection with virulent caliciviruses, but not FCGS syndrome. Many older papers have commented on an association with calicivirus, but not with solid definitions of caudal mucositis/stomatitis.

Dowers *et. al.* reported that calicivirus is the only correlated factor of significance so far⁷, and Poulet *et.al.* confirmed that it is not the biotype of the virus that is the significant factor as all biotypes can be involved in all forms of calicivirus disease¹⁰.

There was a clear consensus in the group that calicivirus plays a significant role, but once again it must be remembered that it may not be the sole cause of the syndrome. There are no agents with a confirmed cause and effect relationship, but rather it must be considered in terms of the reaction of an individual cat to the agent(s).

Feline Herpesvirus-1: The results available in the literature are both interesting and contradictory. One study reported a significant prevalence of herpes shedding on cats with FCGS syndrome when compared to cats with periodontal disease, but there was also a significant level of shedding in the control group¹¹. A more recent study found that Feline Herpesvirus-1 was a rare finding in the stomatitis cases assessed¹², and another recent study showed no increase in FHV shedding in cats with FCGS syndrome compared to control cats⁷. Also, in studies where cats received significant amounts of corticosteroids, which may be expected to induce shedding in carriers, there was no significant association detected. This is complicated by the fact that a significant proportion of cats are believed to harbour herpes, but shedding is not continuous which makes testing unpredictable. It is worth consulting the ABCD guidelines on Feline Herpesvirus¹³ for more information on this, although they are not specific for FCGS syndrome cases. In the absence of clear data the panel did not feel it was possible to determine the relevance of this virus to FCGS syndrome. However some felt that the presence of herpes virus was in any case of low relevance to management as specific antiherpetic therapies such as nucleoside analogues or lysine are not routinely proposed as treatment options for FCGS syndrome. The majority were of the opinion that in cases with no "flu" symptoms it seems unlikely that this virus is playing a major role, with a consensus that there is insufficient data on this subject.

Other Viruses:

There are no data on the role of other viruses. Some have suggested the possibility that other as yet unidentified viruses may be involved, but of course no data is available on this either.

Food antigens:

Despite various anecdotal reports and some case reports there are no good quality data available on the impact of dietary antigens. Some members of the group feel that it may be appropriate to try to avoid additives in the food, but no-one routinely used hypoallergenic diets as part of routine management of this condition. Rather there was a consensus that it was more important to ensure the cat received adequate nutrition whilst suffering from this condition. Feeding the cat what it is able or willing to eat is more relevant.

Diagnostic Pathway:

The first step is clearly the clinical recognition of the syndrome. It is essential to be able to identify visually whether the cat has caudal mucositis/stomatitis and/or alveolar and labial/buccal mucositis/stomatitis, and to differentiate this from simple gingivitis or periodontal disease.

However there are additional tests that can be useful to the clinician when working up one of these cases. Each point was debated regarding the value of the test.

- Bacteriology: The panel was in agreement that this is not required for successful management of the condition but in the light of recent research regarding the role of *Pasteurella* species, may be desirable as part of the basic database of information necessary for successful long term management.
- Blood biochemistry profile: There was a consensus in favour of performing a standard biochemistry profile, and a recommendation is given that this could be considered essential in light of the future treatment options that will be required (including anaesthesia and use of NSAIDs) and potential impact of organ dysfunction.
- Haematology/CBC: The majority of the panel are in favour of performing a complete blood count, with some feeling that PCV may be sufficient in some cases
- Virus testing:
 - Calicivirus: There was a consensus in favour of testing for feline calicivirus, even if, because of an extremely high prevalence (up to 100% caudal mucositis/stomatitis cases may be positive), it may just be used as a prognostic tool for discussion with the owners rather than a diagnostic tool that would influence the treatment of the case. On the other hand, the prevalence of Calicivirus infection in cases with alveolar and labial/buccal mucositis/stomatitis and without caudal mucositis/stomatitis is unknown.
 - FeLV: There was a consensus in favour of performing a test for FeLV
 - FIV: There was a consensus in favour of performing a test for FIV
 - Herpesvirus-1: No consensus was achieved regarding testing for this virus. Routine testing may provide some interesting epidemiological data, but the result will not have any additional impact on case management.

These tests can all be done on initial presentation, but they do not on their own provide sufficient information to allow proper management of this condition.

The next step is a full mouth examination under general anaesthesia. *The panel was unanimous that this step is essential, and there was also a consensus that this must include intraoral dental radiographs and periodontal charting as part of the basic database necessary to implement the proper management of the case.*

Biopsies: These may be taken during the detailed mouth examination with the purpose of ruling out other conditions, but a consensus was not reached on this point. Some felt that those practitioners with sufficient experience of managing this condition to enable them to recognise the different patterns of lesion, and therefore identify similar but unrelated conditions, may not need to perform this step in each cat. It was agreed that in general it is advisable for the general practitioner to include a biopsy in order to rule out other conditions such as Eosinophilic Granuloma or Squamous Cell Carcinoma. *A good biopsy technique is essential in order to avoid inaccurate results.*

Immune profiling: At present it is not economically feasible, but if this becomes more practical and affordable in the future some members of the panel felt that it would be nice to have parameters such as CD4/CD8 lymphocyte ratio and cytokine profiles. This syndrome represents a very individualised response in each cat.

Management:

This could be considered under two categories. First-line treatments are the basic management options that must be considered in all cats to maximise the chances of a good response. Second-line options are additional tools that may be useful in more difficult or refractory cases.

The rationale of management is to attempt to restore the correct balance in the mouth between ‘aggressor’ or antigenic factors and the immune response.

The targets for this approach may be considered under three main groups:

- 1) Periodontal or other dental diseases
- 2) Viral attack
- 3) Immune response

Periodontal or other dental diseases:

The single most effective way to control build-up of dental plaque is to remove the teeth. In the past some have proposed automatic removal of all cheek teeth, some have proposed selective extractions and others have proposed a conservative approach.

The panel felt that on initial presentation it may be legitimate to attempt conservative management with oral hygiene measures, but that if the condition was chronic this was very unlikely to be effective and extractions will almost certainly be required. *Thus in the great majority of cases it must be assumed that extractions will form part of first-line management.*

Extraction decision-making process:

Although the panel unanimously advocates a 'selective extraction' approach, and recommends that the teeth are individually assessed to determine whether or not extraction is required, some care is necessary in interpreting this statement in practice. Therefore, it was stressed by the panel that *following this process, as described below, will in fact result in the removal of most if not all cheek teeth in the greatest majority of cases with significant symptoms of FCGS syndrome, and sometimes even incisor and canine teeth.*

It is necessary to adopt a stance of 'zero tolerance' to dental disease if FCGS syndrome is to be effectively managed. It has already been stated regarding the diagnostic pathway that "there was a consensus that this must include intraoral dental radiographs and periodontal charting as part of the basic database necessary to implement the proper management of the case". The panel wishes to reiterate this requirement in the context of the data required to inform the decision making process for each individual tooth when extractions are considered. In order to apply this selective extraction system, several factors will indicate the need for extraction of the tooth:

- Teeth affected by resorption or periodontitis. There was a consensus that these teeth must be extracted.
- Teeth with endodontic disease. There was also a consensus that cheek teeth and incisor teeth with endodontic disease must be extracted. However opinion was divided regarding the position of canines with endodontic disease. Some felt that extraction was the only safe option in cats with FCGS syndrome. Others felt that in the hands of suitably experienced dental operators an exception may be appropriate in certain circumstances (for example complete absence of mucositis in the rostral portion of the mouth) for canines which could be treated by endodontic (root canal) treatment.
- Retained tooth root tips should always be extracted, except in case of small portions of roots under advanced resorption and deeply located, with an absence of clinical and radiographic signs of endodontic and periodontal disease. It is essential that the extraction is complete for each tooth. Even a fragment of root remaining may be sufficient to cause inflammation and prevent resolution of the problem in the area of the root fragment. If the operator is not 100% certain that the root was removed intact, taking radiographs after the extraction is complete is the only way to be sure and there was a consensus that this is essential in such cases. Although it was agreed that post-operative radiographs are best practice, there was not a consensus on them being essential in cases where an experienced surgeon is confident in the completeness of the extraction.
- Teeth in areas of alveolar and labial/buccal mucositis/stomatitis must also be removed. Gingivitis alone where there is no extension of the inflammation to the mucosa may not be a sufficient reason to extract teeth, and so the two scenarios must be differentiated. However even 'uncomplicated' gingivitis will still require appropriate ongoing management including home care, and if an owner would not be able to provide this care, extraction may still be a more appropriate option.
- In situations where following this decision-making pathway would result in a single tooth, or few teeth, being left in any given area, consideration must also be given to the wisdom of retaining a tooth which loses its function if opposite teeth are extracted, and which may cause problems in the near future.

Thus it is not surprising that in a significant number of cases all cheek teeth will be extracted.

Additionally, even if an initial targeted extraction plan is carried out and results in the retention of some teeth, in cases with insufficient clinical resolution *it may be necessary to remove the remainder of the teeth at a future point, and so it is wise that the owner is aware of this.*

Extraction technique:

There is no single correct or uniquely acceptable technique to perform the necessary extractions. However, because of the need for multiple extractions in many cases, and the need to ensure complete removal of the root, there was a consensus that significant consideration should be given to using an open extraction technique. Consideration may also be given to a referral where the veterinarian is not confident in being able to complete this complex surgery without causing further unnecessary trauma. Gentle bone remodelling is appropriate to prevent pressure points below the gingival tissue, but a warning is given against causing further iatrogenic damage by over-zealous removal of bone.

There was a consensus that the site of extractions must be closed using thin, rapidly absorbable suture material, with a majority in favour of using monofilament suture material. The suture pattern is a matter of personal preference according to the experience of the surgeon.

Pain management:

There was clear unanimous agreement that *appropriate high level pain management is mandatory at and around the time of the extractions as part of first-line management.* This should include local techniques and also systemic pain management. In this scenario it is appropriate to consider concurrent use of opioids and NSAIDs

(respecting appropriate guidelines for use of these drugs in the perioperative setting such as need to ensure adequate renal perfusion).

In the post operative period NSAIDs are routinely used, but due to the severe pain that may be found in the worst cases of FCGS syndrome consideration can also be given to ongoing use of opiates such as transmucosal/sublingual buprenorphine as required.

Antibiotics:

There was also a clear consensus that antibiotics should be used as part of the first-line management strategy, especially around the time of the dental surgery. These do not solve the problem but can be useful in the short term to improve the condition by decreasing challenge from plaque bacteria. It was also agreed that a course of antibiotics would be appropriate on occasions of relapse in symptoms.

When choosing an appropriate antibiotic the first requirement is an appropriate spectrum of activity. It is essential that there is activity against both aerobes and anaerobes. Antibiotics with an extended spectrum of activity against aerobes but lacking activity against anaerobes (such as fluoroquinolones) are *not* an appropriate choice in this circumstance.

The majority of the panel preferred either clindamycin or potentiated amoxicillin as a first choice. Metronidazole is reported to have some anti-inflammatory properties that may also be useful in the treatment of FCGS syndrome cases.

Studies supporting any specific treatment duration are lacking. However the panel is of the opinion that several weeks of antibiotic treatment are indicated in order to lower the oral bacterial load over an extended period of time. This is especially important in the perioperative and postoperative period, to maximise healing at the time of dental extractions.

Compliance is also, therefore, an important consideration. Clindamycin, for instance, is not available in its liquid formulation in every country and the use of capsules may be impractical in some FCGS syndrome cats. Opinion was split over the appropriateness of cefovecin, with a majority feeling that there was insufficient data to support first-line use of this antibiotic.

Topical oral hygiene measures:

The panel was unanimously in favour of the routine use of chlorhexidine in principle. The formulations available vary from country to country and some have found that with certain formulations palatability may be an issue. While toothbrushing is theoretically the ideal measure, it is rarely achievable in these painful mouths. In the absence of good oral hygiene measures, full mouth dental extraction is the only effective method of plaque control.

Additional nutritional support:

It was agreed that there is a need to ensure good quality nutritional support to encourage an effective immunological response and post-extraction healing process. Various supplements have been used by members of the panel, including vitamin preparations and omega-3 EFAs, but there was no specific option which was favoured by a majority of members, and insufficient data is available to recommend any specific product.

The beneficial effects of a recovery food post surgery has been demonstrated in cats with FCGS syndrome¹⁴.

It is to be expected that a high proportion of cases will experience significant benefit from the first-line surgical and medical approach described above. However around 40% of cases will require additional options to adequately control this condition^{15,16}.

The other remaining options are primarily aimed at the second and third targets of the management strategy – namely viral attack and the immune response.

Additional management options:

Anti-inflammatory therapy:

There was a consensus that there is an important place for the use of anti-inflammatory medications to help manage this condition.

NSAIDs:

The first choice option for all panel members was meloxicam, to be prescribed with respect to the appropriate guidelines for use of long term NSAIDs in cats¹⁷.

Some new molecules such as robenacoxib are showing promise, but members of the panel have not yet used them enough in this condition to be able to formulate an opinion.

Corticosteroids:

There was unanimous agreement that the use of corticosteroids in the management of FCGS syndrome should be strongly discouraged. However they may need to be considered in some refractory, anorexic cases where other options have failed to rapidly improve the clinical signs. They should always be used at the lowest effective dose. Short-acting molecules are preferred over long-acting drugs, and the dose should be tapered down where possible. The panel wishes to state that it discourages use of corticosteroids in this condition other than in this circumstance, and one panel member is unwilling to consider their use at all.

Clinical experience suggests that long term use of corticosteroids may increase the subsequent difficulty of managing these cats in addition to the other potential adverse effects associated with such use.

Azathioprine:

It has been reported that azathioprine may permit the lowering of corticosteroid doses in cases which require such an intervention¹⁸. However the panel believes that there is insufficient data to recommend the use of azathioprine in the management of FCGS syndrome. The potential side effects are not insignificant, and a caution has already been expressed about the excessive use of generalised immunosuppressive options.

Chlorambucil:

There are insufficient data to recommend the use of chlorambucil in the management of FCGS syndrome.

CO2 laser surgery:

There are insufficient data to recommend its routine use in the management of FCGS syndrome. However some members of the panel have found that this option may be suitable as an adjunctive therapy for pain control in certain cases and some information regarding this option was provided in a relatively recent review¹⁸.

Cyclosporine (Atopica®, Novartis):

Some data have been published on this molecule¹⁹ as part of a dermatology study suggesting 4 out of 8 cats treated responded and could be maintained on every second day dosing. However other studies have been equivocal about the benefits and a placebo-controlled trial in a small number of cats did not show a significant difference from placebo²⁰. Some suggestions for use have been provided by Lyon and monitoring of blood levels to avoid toxicity is deemed essential due to erratic absorption differences¹⁸. The panel felt that the currently available data are not yet sufficient to support a recommendation to use this molecule.

Doxycycline:

There are anecdotal reports of the use of long term doxycycline at sub-antimicrobial doses as an anti metalloprotease to aid healing of ulcerated tissues. This is a result of its use in this manner to manage recurrent oral aphthous ulceration in some human patients²¹. However, there are currently no data to support the use of this option in cats.

Gold salts:

There are insufficient data to recommend their use. Additionally, the reported side effects, including oral inflammation and ulceration, are high.

Interferon:

Feline Interferon Omega (Virbagen Omega®, Virbac):

This molecule is licensed in Europe for management of FeLV and FIV infections in cats, and is licensed in some other countries such as Japan for management of calicivirus induced conditions such as cat 'flu'. Studies performed using recombinant feline interferon omega (reFeIFN- ω) have shown efficacy in FCGS syndrome. However it should be noted that all of the available studies have been performed in calicivirus positive cases of FCGS syndrome refractory to dental extraction. A practical, efficacious and economic use of reFeIFN- ω in these cases, as used in a recent randomised controlled double-blind study²², is by oromucosal application of 100,000 units per day, and the panel was unanimous that this is an appropriate second-line management.

It is expected to provide both local antiviral benefits as well as immunomodulatory benefits, promoting a return to a more normal local immune response, making it complementary to the management of dental disease and plaque. Although some cases respond very rapidly²³, clinical experience and anecdotal reports suggest that some severe cases may require long term use of oromucosal interferon, and the full extent of the benefit achieved with this molecule may not be completely apparent until it has been used for several months.

Other studies and reports have also shown benefit from repeated perilesional infiltration or subcutaneous injections, meaning this may be an alternative option for cats whose owners cannot manage oral dosing in the initial painful stage of the condition^{24,25,26,27}.

Some members of the panel prefer to incorporate reFeIFN- ω into the initial management of all severe cases by utilising an intralesional or perilesional infiltration of around 5MU at the time of the dental surgery, which can be followed by oral administration as appropriate. There was no consensus on whether or not this should be

generally recommended, but there was a clear consensus that in the absence of the appropriate surgical management mentioned above it is not appropriate and additionally would not be expected to be of significant benefit.

Human Interferon Alpha:

Use of oral administration of Human Interferon Alpha (HuIFN- α) has been documented in the management of FIV²⁸. There are anecdotal reports of its use in the management of FCGS syndrome, however no studies have been published, and so no assessment of the efficacy is possible. Use by parenteral injection results in neutralising antibodies within 3-7 weeks, although this may not be the case with oral administration.

Lactoferrin:

The use of lactoferrin in FCGS syndrome cases was first described in a study performed in both FIV positive and FIV negative cats, showing improvement of clinical signs²⁹. It was also used (in combination with thalidomide) in a single case report³⁰. The cat showed resolution of FCGS syndrome in about a year, but more cases are necessary to evaluate the real effect of this option. In the experience of the few members of the panel who have used it, they have not found it to be effective, and there is insufficient evidence to recommend its use at this stage.

Parapox ovis virus(inactivated)(Zylexis®, Pfizer):

This is only locally available, and one member of the panel has found it to be of help in some cases. It is an inducer of endogenous IFN- γ . A case series of 17 cats suggested some improvement in general wellbeing and inflammatory severity³¹. However there are currently insufficient data to recommend its use.

Progestagens:

These are used anecdotally to manage severe refractory cases unresponsive to other options. A majority of the panel were not at all in favour of their use due to a significant risk of adverse effects. A minority would consider a short course with a tapering dose but only after all other suitable options have been tried.

Thalidomide:

There are insufficient data to recommend its use.

Conclusion:

Management of FCGS syndrome, especially type 2 involving caudal mucositis/stomatitis, can be extremely frustrating for the general practitioner and specialist alike. Knowledge of the aetiology of the syndrome and its ideal management strategies are far from complete at this stage. Nevertheless, work over recent years has begun to provide some useful data, and in conjunction with newer medical options has been able to offer some hope even for the severe forms of the condition. These guidelines are offered to the profession in the genuine hope that they will assist veterinarians in providing the best care currently possible to such cats, and that the result will be both better welfare for the animal and also increased satisfaction for the owner and clinician.

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