PURINA® PRO PLAN® VETERINARY DIETS

This case report demonstrates the successful use of PURINA® PRO PLAN® VETERINARY DIETS Canine EN Gastrointestinal together with the probiotic supplement FortiFlora® in the dietary management of canine chronic colitis

Benefits of Canine EN Gastrointestinal and FortiFlora® in the successful management of canine chronic colitis

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Chronic colitis is frequently diagnosed in veterinary practice and is one of the most common causes of chronic diarrhoea in dogs. Even though it is not life threatening, it is nevertheless very uncomfortable for the patient and inconvenient for the dog's owners. The term chronic colitis encompasses several conditions all of which have inflammation of the colon as their predominant pathology. Causes of chronic colitis include parasitic, infectious, immune-mediated or primary infl ammatory conditions. Regardless of aetiology, the clinical signs of chronic colitis are similar and easy to recognise - an increased frequency of defaecation (which is often associated with tenesmus) and poorly formed stools, often containing mucus and fresh blood. Treatment options for patients with colitis include standard supportive treatments to restore fluid balance, antibiotics, anti-diarrhoeal or antispasmodic medications during acute episodes, non-steroidal antiinflammatories such as Salazopyrin®, (sulphasalazine) and corticosteroids[1]. Dietary change is also highly recommended to provide adequate dietary fibre and high digestibility to limit the passage of ingesta into the colon. Probiotics are also often recommended on account of their immunomodulatory effect and positive influence on intestinal microfl oral balance and stability.

Case history

Brygton, a 4-year-old entire male Husky was referred for a nutrition consultation at the Nantes National Veterinary College. Brygton had been having episodes of chronic diarrhoea since he was acquired (3,5 years ago). He was otherwise well. The owners reported that the dog's stools varied on a daily basis from liquid to soft to barely formed, (faecal score of 4 to 7 on a 7-point scale- where 7 is very liquid diarrhoea). Brygton was fed on a mixed diet formulated by his owner including easily digestible dry food, rice or pasta, accompanied by ham or red meat to encourage him to eat following many refusals. He was up-to-date with routine worming and vaccinations. Brygton had received many previous treatments for his colitis including intestinal mucosal protectants, corticosteroids, antibiotics (metronidazole) and sulphasalazine (Salazopyrin® - the locally acting colonic anti-inflammatory drug) without much improvement.

Clinical examination

Clinical examination revealed no signifi cant abnormalities with the patient appearing to be in a good general state of health. Brygton weighed 21 kg and was in ideal body condition (body condition score 5/9).Circulating trypsin-likeimmunoreactivity (TLI), folate, vitamin B12, albumin and bile acid levels were measured and a faecal examination was performed. An abdominal ultrasound was also carried out. The only significant finding was elevated serum folate (18.6 mg/l, while normal values should be < 12 µg/L), consistent with small intestinal bacterial proliferation[2,3].

Treatment

A dietary treatment protocol based on probiotics and highly digestible food was recommended. Canine EN Gastrointestinal dry food and a daily sachet of Canine FortiFlora® were prescribed. It was also recommended that the food be split into 3 meals per day. After starting this dietary regime, Brygton's stools became well-formed with a consistent faecal score of 3/7. He has now remained on this treatment protocol for four months.

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Follow-up

After only one month on Canine EN Gastrointestinal and FortiFlora®, Brygton did not suffer any more bouts of diarrhoea and had gained weight (+1 kg). Four months later, the owners confirmed no recurrence of diarrhoea, a good stool quality and maintenance of weight.

About the diet

Nutritional recommendations for the management of canine colitis include provision of a **highly digestible** diet to reduce colonic irritation as a result of poorly digested residues entering the large intestine and the provision of **adequate dietary fibre** to influence colonic motility as well as enhancing luminal SCFA (short chain fatty acid) production. Canine EN Gastrointestinal is a highly digestible, low residue clinical diet containing a balance of soluble and insoluble fibres and medium chain fatty acids which are easily absorbed by the small intestine, even during inflammatory processes. It also contains a source of prebiotics (purified inulin) which helps promote good intestinal health.

Given together with dietary live probiotics, such as FortiFlora® (containing a specific strain of microencapsulated SF68), the two dietary treatments combined helped ensure a quick return to good colonic health in this case.

Probiotics are able to both modify the intestinal microflora and enhance the innate immune responses. They are able to:

- influence the composition of the intestinal flora when they are present in sufficient quantities (more than 1x 10^8CFU/g) and to promote the growth of 'good' bacteria.
- modify the mucus layer in the intestines strengthening the integrity of the intestinal barrier.
- stimulate the synthesis of bactericidal substances (such as defensins) by the mucosal cells, contributing to the fight against pathogens.

The main indications for probiotics include[4]:

- Acute or chronic diarrhoea - because they inhibit the growth of pathogenic bacteria such as coliforms or salmonellae
- Chronic inflammatory conditions of the intestines - on account of their immunomodulatory action
- Food allergies or vaccination - due to their ability to help strengthen the immune barrier[5].

In chronic colitis, probiotics help optimise the balance of the intestinal bacterial flora and also have a local immunomodulatory and anti-inflammatory action. It is important to choose probiotics which are appropriate to the species concerned, ensuring a large quantity of living microorganisms reach the area to be treated[6]. In the case presented here, the probiotic supplement (FortiFlora®) sprinkled on the food was well accepted because it is highly palatable. In chronic conditions, long-term treatment is recommended to sustain beneficial adaptations of the intestinal microflora. FortiFlora® probiotics are both safe and locally efficacious.

The prognosis for chronic colitis is generally good as long as systemic health is unaffected. However, elimination of bouts of diarrhoea should be sought in order to restore the dog's digestive well-being and improve quality of life for both dog and owner. In the long term, chronic colonic diarrhoea can lead to electrolyte imbalance and prevent absorption of vitamins synthesised by resident bacteria. In cases of proven bacterial proliferation or recurrent chronic colitis despite conventional treatment, the use of probiotics is strongly recommended. Whilst the mainstay of therapy for chronic colitis remains the use of a highly digestible diet rich in fibre, probiotics should now also become an important part of a practitioner's therapeutic arsenal to manage this common condition.

Further Reading

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