NEW Nutrition Service Launched

Willows are delighted to announce our new Nutrition Service. Nutrition plays a vital role in the prevention, treatment and recovery of dogs and cats from various illnesses.

Although there are specially designed commercial diets to manage many medical disorders, some sick pets will benefit from an examination by a nutrition specialist in order to find the most suitable diet.

Isuru Gajanayake, Internal Medicine and Nutrition Specialist at Willows is one of only four animal nutrition Specialists in the UK and the first to have been trained in this country.

Isuru says “some pet dogs and cats may benefit from feeding a home-cooked diet to manage their medical condition. This is usually because there is no commercial diet available that meets the nutrition needs for a particular dog or cat. Alternatively, some sick pets refuse to eat commercial diets but may be more willing to eat a home-cooked version that provides the same benefits. Although there are many recipes for home-cooked diets available on the internet and in books, these diets are often not balanced, i.e. they do not provide all the nutrients needed by dogs and cats in the correct amounts. A recipe formulated by a nutritionist will be balanced and can be specifically designed to provide certain nutrients in desired amounts (e.g. to manage disease or other situations such as growth and pregnancy)."

For further information on our dedicated nutrition service visit:
www.willows.uk.net/nutrition-service

Extending our services to you

We are beginning to outgrow our current centre as we have continued to grow our services to you. We have a new extension planned which will be starting soon and completed by the end of the year.

The new extension will provide us with:

- Radioactive iodine unit for treatment of hyperthyroidism in cats
- A new and larger echocardiography suite for our cardiac patients
- Oncology procedure room to allow safe and efficient administration of chemotherapy agents to cancer patients
- Endoscopy suite
- Ophthalmology procedure room
- Dedicated operating theatre for minimally invasive procedures, fully equipped with fluoroscopy as well as rigid and flexible endoscopy
- 41 new kennels, including an additional 13 large walk in kennels
- Dedicated anaesthesia recovery ward

Our commitment to excellence and our dedication to you the referring veterinary surgeon and your clients will continue as normal during this expansion period. If you have any questions or need any further information on behalf of your clients, please don’t hesitate to contact us on 0121 712 7070.
WILLOWS CASE STUDY:

1 year old, male neutered Cockapoo

Chuck, a 1 year old Cockapoo, was presented for evaluation of a right pelvic limb lameness of three months duration. The lameness was progressive and there had been a poor response to NSAID therapy, exercise modification, joint supplements and hydrotherapy.

Examination revealed a 4/10 right pelvic limb lameness with generalised muscle atrophy of the limb and pain on extension and abduction of the right hip.

Ventrodorsal (Fig 1) and lateral radiographs of the pelvis and mediolateral (Fig 2) and caudocranial (Fig 3) views of the femur were obtained.

What is your diagnosis? What are the treatment options for this condition? What is the prognosis?

...for the answer see the back page

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CPD Day Meetings 2017 at Willows

**Feline Friendly Nursing**

Wednesday 17 May 2017

A focus on best practice nursing of the geriatric cat, anaesthesia and analgesia considerations for the feline patient and how to set up successful cat clinics.

£110.00 (inc. VAT)

**Broken bones, torn ligaments, skin grafts and trenchfoot – medicine and surgery of the distal limb**

Wednesday 6 September 2017

Trauma to the distal limb is common and the diagnosis and treatment of these injuries can vary from simple to extremely challenging.

£150.00 (inc. VAT)

**Hot topics in feline medicine and surgery**

Wednesday 15 November 2017

The feline caseload in veterinary practice is ever-increasing. Cats are not small dogs and they can present us with a unique range of challenges.

£150.00 (inc. VAT)

REGISTER NOW ONLINE AT: www.willows.uk.net/cpd
Dr Kinley Smith
MA VetMB CertSAS DipECVS PhD MRCVS
RCVS & European Specialist in Small Animal Surgery (Orthopaedics)

Aurora Zoff
DVM MRCVS
Clinician in Anaesthesia
Aurora graduated from Bologna Veterinary University in Italy in 2009 and is planning to sit her board certifying exam in 2017. Her area of research has been focused on local anaesthetic blocks in small animals.

Jonathan Pink
BSc BVetMed CertSAS DipECVS MRCVS
Orthopaedics

Sebastien Behr
DVM DipECVN MRCVS
Neurology

Mike Rhodes
BVM &BSH CertSAS DipECVS MRCVS
Ophthalmology

Isuru Gajanayake
BVSc CertSAM DipACVIM DipECVIM-CA DipACVN MRCVS
Internal Medicine Dermatology Oncology

Stephen Baines
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Ophthalmology

Chris Linney
BVM & BSH CertSAP CertAVP(VC) DipECVIM-CA (Cardiology) MRCVS
Cardiology

Andrew Parry
MA VetMB CertVDI DipECVDI MRCVS
Diagnostic Imaging

Alessandra Mathis
DVM CertVA DipECVAA MRCVS
Anaesthesia and Analgesia

Heads of Services
Willows has continued to grow rapidly over the past year and to ensure that we remain committed to excellence at all times we have appointed Heads of Service covering the whole of the multi-disciplinary team. Should you have any questions regarding our services to you or your clients, please don’t hesitate to contact the team.

What referring vets’ clients say about us...

Molly was referred by our vet to Mike Rhodes as she has an autoimmune condition affecting her eyes, she is not an ‘easy’ dog and needs reassurance, however, she has always had excellent treatment at Willows, we have been kept informed the whole way and your vet is only an email away if we have any questions or problems.

Reception staff have always been very friendly and welcoming.
There are different components that make up the precorneal tear film: lipid, aqueous and mucin. The lipid layer is the most superficial and is produced by the meibomian glands located within the eyelid margin. The aqueous component is produced by the orbital lacrimal gland and by the gland of the nictitating membrane. The mucous layer is secreted by the conjunctival goblet cells.

Aqueous production from the lacrimal gland is the result of a complex physiologic process. Both the basal and reflex tears are under the control of the autonomic nervous system. The afferent arm involves the trigeminal nerve (ophthalmic branch), while the efferent component involves the parasympathetic output into the lacrimal gland via the facial nerve.

The preganglionic neurons originate within the parasympathetic nucleus of the facial nerve, located within the rostral portion of the medulla oblongata. These fibres run as part of the facial nerve through the facial canal of the petrous temporal bone (middle ear), branching then into the major (greater) petrosal nerve that synapses with the pterygopalatine ganglion. The post-ganglionic axons innervate the lacrimal gland, the palatine and lateral nasal gland (the latter is very relevant when considering the clinical presentation of neurogenic keratoconjunctivitis sicca - KCS). The lacrimal gland is innervated by the zygomatic and lacrimal nerve (both branches of the trigeminal nerve) (Fig. 1).

Lesions affecting the efferent pathway will lead to a decrease in tear production and this condition is known as neurogenic KCS.

Patients typically present with an acute history of marked unilateral mucopurulent ocular discharge (Fig. 2). Schirmer tear test readings are significantly different between both eyes. The affected eye will normally be lower than 5mm/min and the contralateral eye will be normal. Further examination often identifies a dry nostril (xeromycteria) ipsilateral to the dry eye (Fig. 3).

Most patients do not have additional clinical signs. However, other neurological deficits can be detected concurrently depending on the localisation of the lesion, namely: Horner’s syndrome (the sympathetic nerves pass in close proximity to the inner/medial ear) and facial paralysis if the preganglionic nerve (major petrosal nerve) is affected (eg: otitis media and/or interna, petrositis). Erosive lesions to the floor of the medial fossa of the skull can lead to trigeminal nerve deficits such as facial anaesthesia and xeromycteria (dry nasal...
Figure 2: Note the marked mucopurulent discharge and mild blepharospasm of the left eye. The right nostril is moist but there is marked accumulation of dry discharge in the left nostril.

Figure 3: Close-up photo of both nostrils. Note the marked left xeromyctica (dry nasal planum).

mucous membranes). Injuries to the pterygopalatine fossa could include periorbital myositis, cellulitis and dental abscessation. Post-ganglionic lesions are commonly identified in cases of orbital trauma.

Other possible causes of dry eye should be ruled out such as: immune-mediated disease (typically bilateral and often of a more gradual onset), congenital (eg: Yorkshire Terrier and English Cocker Spaniel), iatrogenic (eg: excision of nictitating membrane gland), traumatic, infectious (eg: canine distemper virus), radiation therapy, drug-induced (eg: sulphonamides and atropine) and systemic diseases (eg: diabetes mellitus and hypothyroidism).

Ideally advanced imaging (eg: CT scan or MRI) should be performed in order to identify possible lesions. However, given that the majority of canine neurogenic KCS cases are idiopathic and in the absence of other neurological deficits these tests do not always need to be performed.

The prognosis for dogs suffering from neurogenic KCS is dependent upon the response to treatment. The mainstay of medical therapy includes topical tear replacements and the use of oral 1-2% pilocarpine, a direct-acting parasympathomimetic drug. Response to therapy is secondary to parasympathetic denervation, in which peripheral cholinergic receptors have undergone upregulation and are more sensitive to the effects of cholinergic stimulation than other cholinergically innervated tissues, also known as denervation hypersensitivity.

Pilocarpine is normally given 2 to 3 times daily, 1 drop per 10Kg of bodyweight. The dose is gradually increased by one drop increments (eg: every 2 to 3 days) until there are signs of gastrointestinal toxicity (hypersalivation, inappetence, vomiting and diarrhoea). Once these signs are detected, treatment is temporarily discontinued for 24 hours and the dose is lowered to the previously highest tolerated dosage.

There are anecdotal reports where topical 0.125 - 0.25% pilocarpine solution diluted in artificial tears is used but the results are not consistent and the drug can be irritant when applied directly in the eye.

Some dogs, however, may respond to prolonged systemic broad-spectrum antibiotics and non-steroidal anti-inflammatories when an underlying infectious/inflammatory process is responsible. Topical cyclosporine has been concurrently used in some patients and although the success of therapy is more relevant in patients with dry eye due to immune-mediated disease, its mucinogenic effect may be beneficial.

Reported success rates of treatment are generally poor, but in a recent case report approximately 50% of the patients (5 of 11 dogs) recovered within 125 days of diagnosis. According to this study neurogenic KCS was predominantly an idiopathic disease.

If response to medical therapy is not satisfactory, surgery is available in the form of parotid duct transposition. However this procedure needs to be carefully and thoroughly discussed with the owners due to possible complications encountered with this surgery. Nonetheless, recent studies have reported a high overall success rate and high owner’s satisfaction following the procedure.

Summary:

- Neurogenic KCS is a relatively uncommon condition.
- It is vital to recognise the characteristic clinical signs in order to choose the appropriate treatment and give an accurate prognosis.
- Patients may present with an acute onset, severe unilateral dry eye and frequent ipsilateral dry nasal planum.
- A dry nasal planum (xeromyctica) is a result of the deficient parasympathetic innervation of the lateral nasal gland.
- Parotid duct transposition surgery can be considered in patients refractory to medical therapy.

References:


Rodrigo Pinheiro de Lacerda DVM DipECVO MRCVS European Specialist in Veterinary Ophthalmology...
Brachycephalic Obstructive Airway Syndrome

Brachycephalic obstructive airway syndrome (BOAS) includes stenosis of the nares, abnormal turbinates in the nasal cavity and nasopharynx, pharyngeal hypoplasia, everted and enlarged tonsils, elongated and thickened soft palate, laryngeal collapse and hypoplasia of the trachea. There are three grades of laryngeal collapse. Grade 1/3 is an eversion of the laryngeal saccules. Grade 2/3 is a collapse of the cuneiform processes of the arytenoid cartilages. Grade 3/3 is a collapse of the corniculate processes of the arytenoid cartilages.

The syndrome commonly affects Pugs, French Bull Dogs, English Bulldogs, and other brachycephalic breeds. Clinical signs include dyspnea, stertor, snoring, exercise intolerance, collapse, cyanosis. Some dogs also have chronic regurgitation. It can be due to gastroesophageal reflux caused by the abnormal movement of the diaphragm or less commonly hiatal hernia.

A diagnosis of BOAS can be made by examining the upper airways under general anaesthesia. Further diagnostic tests can help to better assess the syndrome. Thoracic imaging (radiographs or computed tomography) are indicated to rule out aspiration pneumonia and investigate a hypoplastaic trachea. Computed tomography of the head and rhinoscopy can be used to identify abnormal turbinates. Fluoroscopy and barium swallowing study can be indicated to investigate a possible hiatal hernia.

While mild forms of BOAS can be treated conservatively, moderate and severe forms associated with exercise intolerance are usually treated surgically. Surgical treatment commonly involves widening of the nares and shortening of the soft palate. Tonsilectomy, turbinectomy, resection of the everted saccules and laryngeal tieback have also been well described to treat this condition (Reiter and others 2012, Schuenemann and others 2017, White 2012).

CASE HISTORY

A four-year-old female neutered Pug presented to the soft tissue service at Willows Referral Service for investigation and treatment of a brachycephalic obstructive airway syndrome (BOAS). The patient had a chronic history of snoring, stertor, exercise intolerance and respiratory distress. She had one dyspneic episode associated with collapse and cyanosis following a suspected allergic reaction to an insect bite. She occasionally vomited. She was not on any medication at the time of presentation.

On general examination, she had moderate stenosis of both nares. Lung auscultation revealed increased upper respiratory tract noise but no clinical signs of aspiration pneumonia. Heart auscultation was unremarkable. The rest of the examination was unremarkable.

The patient received 0.01 mg/kg acepromazine (intramuscular) and methadone 0.2 mg/kg (intramuscular). A 20-gauge cephalic intravenous catheter was placed. Anaesthesia was induced with intravenous propofol to effect, after five minutes of preoxygenation. A throat exploration revealed moderate pharyngeal hypoplasia, normal tonsils, an elongated and thick soft palate, eversion of the laryngeal saccules (laryngeal collapse grade 1/3). The patient was intubated and the anaesthesia was maintained with isoflurane and oxygen. 5 ml/kg/hr Ringer's lactate was given during the anaesthesia.

The dog was positioned in ventral recumbency. The head was elevated using tape placed caudally to the maxillary canine and attached to a stand mounted on the theatre table (see picture 1). The endotracheal tube was secured to the mandible. The mandible was kept widely open using tape attached to the theatre table. A swab was placed in the oropharynx to push the base of the tongue ventrally and protect the airways.

A soft palate resection was performed using a reversed V-shaped incision (see pictures 1 and 2). The ventral tip of the soft palate was grabbed with allis forceps. The lateral landmarks to start the incision of the soft palate on both sides were about 5mm medially to the caudal aspect of both tonsillar crypts. The landmark to position the tip of the ‘V’ was the midline of the soft palate, on the horizontal line crossing the rostral aspect of both tonsils. Mayo scissors were used to incise the soft palate. Simple interrupted 4/0 polyglactin 910 sutures were used to appose the nasopharyngeal mucosa to the buccal mucosa (see picture 2).

Picture 1: The yellow line indicates the incision made to perform a standard soft palate excision. The red line indicates the incision to perform a more aggressive soft palate excision as described in this case report

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continued...
A bilateral modified horizontal rhinoplasty was performed (see pictures 3 and 4). A curvilinear incision was made following the ventral aspect of the wing of the left nostril. A stab incision was made in the dorsal aspect of the wing of the left nostril. The incision was extended to excise the wing. Three simple interrupted 3/0 poliglecaprone 25 were used to close the wound (see picture 4). The same procedure was performed on the right nostril.

The patient recovered in the intensive care unit. She received buprenorphine 0.02 mg/kg (intravenous) every 6 hours. The respiratory rate was recorded every hour for four hours and every two hours overnight. She was hand-fed with meatballs a few hours after surgery. Intravenous fluid therapy was stopped a few hours after surgery when the patient was eating. She was discharged the day after surgery with five days of meloxicam (0.1 mg/kg per os, once daily). The owner was contacted three months after surgery. He was very satisfied with the outcome. The patient was breathing better and the exercise intolerance had resolved.

DISCUSSION

Although BOAS is a very common disease and one of the most common presenting complaints in our hospital, there is no scientific evidence to determine the best way to treat it. Most surgeons agree that the nares should be widened and the soft palate resected. However, performing a tonsillectomy, removing the evverted saccules or performing a turbinectomy remain controversial treatments. There is no evidence those techniques improve the outcome but they can be associated with complications (Belch and others 2016, Cantatore and others 2012, Schuenemann and others 2017). Many different techniques have been described to perform a rhinoplasty and soft palate resection (Haimel and others 2015, Reiter and others 2012). The theoretical advantage of the techniques described in this case report is to increase the airway flow more than with traditional techniques. According to Poiseuille’s law, the rate of flow in a tube is correlated to the radius to the power four. This means that a small increase of the radius of the airway would result in greatly increased airway flow (Reiter and others 2012). Whether the techniques used in this case report are associated with a better outcome than more traditional techniques is currently unknown.

Perioperative medication is also a controversial topic. Preoperative antibiotics, steroids and antacids can be given to try to decrease the postoperative complications (Reiter and others 2012). As the evidence is lacking to determine if it affects the outcome, it is the author’s preference to give those drugs post-operatively, only if indicated.

Overall, the prognosis after surgery is good to excellent for 90% of the cases (Haimel and others 2015). However, complications including aspiration pneumonia and airway obstruction can lead to death. Close monitoring after surgery is mandatory to reduce the incidence of serious complications.

References:


1 year old, male neutered Cockapoo

Legg-Calves-Perthes disease, also known as avascular necrosis of the femoral head, is evident on the radiographs.

The radiographic signs are focal bony lysis of the femoral head (‘moth eaten’ or ‘apple coring’), flattening and mottling of the femoral head and collapse and thickening with sclerosis of the femoral neck.

It is due to a non-inflammatory local ischaemia, which leads to necrosis of the trabecular bone and collapse of epiphysis. This heals with new bone but the femoral head and neck are malformed leading to pain and dysfunction. The cause is unknown but there is a hereditary component. It has been shown to be a simple autosomal recessive trait in Miniature Poodles and Westies. Young dogs between 4 and 11 months old are affected and males and females are equally affected. In approximately 15% of cases the condition is bilateral.

Conservative treatment of strict rest, analgesia and physiotherapy results in the resolution of the lameness in a small number of cases but only if the clinical signs are mild and there is minimal remodelling of the femoral head and neck. Most chronic and more severely affected cases require salvage surgery such as femoral head and neck ostectomy (FHNO, excision arthroplasty) or total hip replacement (THR). The outcome with FHNO is variable and unpredictable, although it is generally considered satisfactory in small dogs and cats. Micro/Nano THR is possible in small patients down to approximately 1.5-2 kg in weight and has become the preferred surgical procedure, although the additional costs and possible complications have to be discussed with the owner.

Following THR, a rapid improvement in limb function with near normal limb function and almost complete pain control is expected. Advancements in technique, prostheses and cementing techniques have resulted in a low complication rate following THR in specialist centres.