THE RALPHER

February 2020 Edition

REFLECTING ON OUR FIRST YEAR...

The Ralph opened a year ago after a five-year journey. You know when it feels like so much has happened yet in the blink of an eye? It's like that.

I did not embark on The Ralph journey because of a long-held desire to run a large referral centre. I did so because of the belief that it was possible to create a hospital which, at its core, would be a little different from what I had known. To build an independent hospital with a focus on core values, culture and mission.

The Ralph is a new hospital. For a start-up of this scale, one year is still very much early days. Most of us are not used to being in a start-up. It is different and challenging especially with the growth. Yet throughout we have done our best to prioritise our patients, their carers, our referring community and Team Ralph. We are grateful for your belief in us and appreciate your patience, where we have fallen short.

As a first-time founder and CEO, what have I learned above all? Something obvious and yet easy to underestimate - it is all about people. Team Ralph will determine whether The Ralph becomes the hospital we intend it to be. Our operational progress moves in the right direction. As an independent start-up, our financial development moves slowly towards long-term security. Yet The Ralph was and is about more than that.

It is about continuing to work very hard to ensure that we embed the founding culture. A culture focused on compassion, empathy, patient safety, human wellbeing and ethical clinical practice. Embedding culture and ethos requires long-term effort from a team who share a vision. We are up for it.

Thank you once again for your support and your feedback over the last year. We look forward to serving you, your patients and your clients in the year ahead. And we look forward to continuing to improve as a centre of excellence.

Shailen

Shailen Jasani MA VetMB MRCVS DACVECC
Veterinary Emergency and Critical Care Diplomate
Founder, CEO and Clinical Director

Team Ralph's year in focus

On the 20th January 2019 Team Ralph formed together for the very first time. Since this point forward they have been paving their way in creating a referral centre with a difference. By working together to accomplish all manner of tasks which transformed a building shell into the hospital it is today, the journey continues as we strive to deliver The Ralph mission.

Just like every other journey undertaken, there have been bumps along the way. There have been the highs with laughter and celebrations, and there have been the lows with learnings and sadness. Here members of Team Ralph reflect on their year, and share their memorable moments...

OUR JOYOUS MOMENTS...

I've loved seeing Milo and Mark (my nervous rescue) run around upstairs on my lunchbreaks like they own the place. To see Mark settle in so well and love everyone here makes me smile so much - especially when the first couple of days he came with me he hid under the table and barked at anyone who looked at him!

Meeting lots of amazing people, making new friends and being involved with treating the first patient, Colin.

Seeing The Ralph successfully grow and reading the lovely feedback letters from the carers.

Seeing Friends of Animals Wales link up with The Ralph and utilise our services. Also seeing their medically challenged patients leave The Ralph with a greater outlook.

Seeing Morgane and Sophia, who started with us as Patient Care Assistants, become Student Nurses!

WHAT WE'VE LEARNED ALONG THE WAY...

"Working in a start-up is very different to working in an established business and takes some adjusting. It is very rewarding as you see things fall into place knowing you were part of the team that helped make it happen."

"How to adapt and be more flexible in a brand new hospital with a new team of people. I've learnt a lot more clinically as well by talking and working with some really knowledgeable people."

"Patience. Rome wasn't built in a day and neither was The Ralph. It takes time to grow, and it takes time to build. We've come from nothing to what we are today and we will continue to thrive, it just takes time and patience."

"That scopes are expensive when they go wrong!"

To sum up the year in one word...

FAST REWARDING
EXCITING CHALLENGING
ROLLERCOASTER EMOTIONAL
NOURISHING SATISFYING

Harper is a 6-month-old female Italian Spinone puppy who was referred to our Neurology Service for evaluation of exercise intolerance and drooling.

6-month-old Italian Spinone, Harper.

Harper's carers reported that she has always appeared "slow to rise" from a recumbent to a standing position. A month before presentation, Harper began to display signs of exercise intolerance. Initially, this was characterised by Harper sitting down during a short walk, drooling and appearing to need to rest for a while. She would then regain her energy and continue.

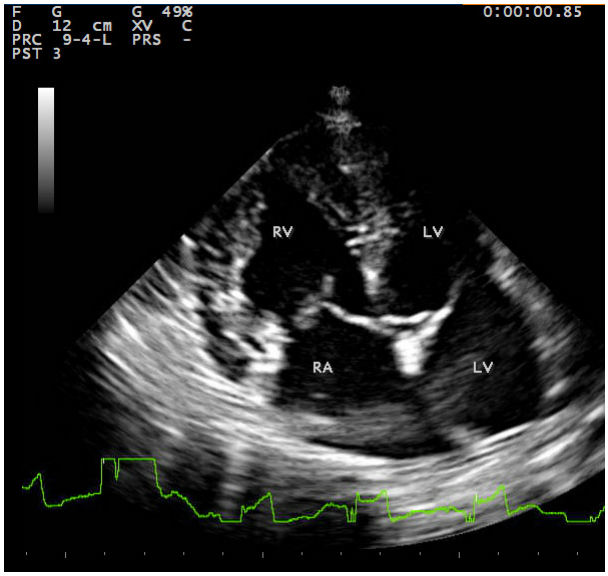
Despite a limited exercise regimen, Harper developed hindlimb weakness on minimal exertion. This manifested as dragging, knuckling or dipping of her hindlimbs. She would sit down for approximately 40 seconds and then spontaneously recover.

A neurological assessment revealed generalised muscle atrophy thought to be from disuse. Swallowing, jaw function, and all cranial nerves, spinal reflexes and proprioception were normal. Femoral pulses and cardiac rhythm were also thought to be normal. After ruling out anaemia and metabolic causes of weakness, we undertook cardiac evaluation.

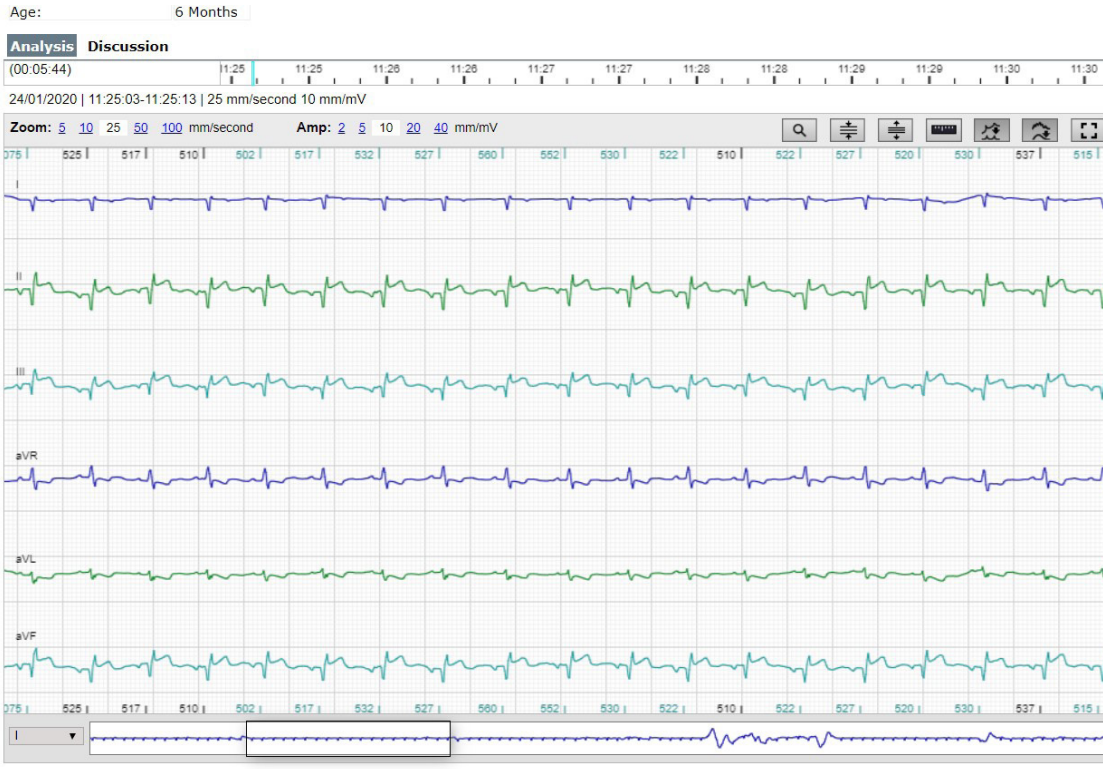
Our Cardiologist identified mild differential cyanosis (normal colour of oral mucous membranes and bluish tinged vulvar membranes). They reported a split S2 heart sound on cardiac auscultation.

Doppler echocardiography showed bichamber right-sided enlargement and a patent ductus arteriosus (PDA). Intravenous contrast study ("bubble study") revealed contrast in the abdominal aorta. This confirmed a right-to-left shunt through the PDA ("reversed-PDA").

Patent ductus arteriosus (PDA) represents one of the most common cardiac congenital defects in dogs. Yet, reversed-PDA is rarely reported in small animal cardiology. It accounts for less than 5% of all canine PDAs. In most cases, a right-to-left ("reversed") shunt is associated with persistence of foetal pulmonary circulation, causing primary pulmonary hypertension. Differential cyanosis is caused by deoxygenated blood shunting from the venous circulation (pulmonary artery) into the arterial circulation (aorta) distal to the left subclavian artery and brachiocephalic trunk. This causes a significant decrease in arterial oxygen tension in the caudal part of the body. Meanwhile, more oxygenated blood



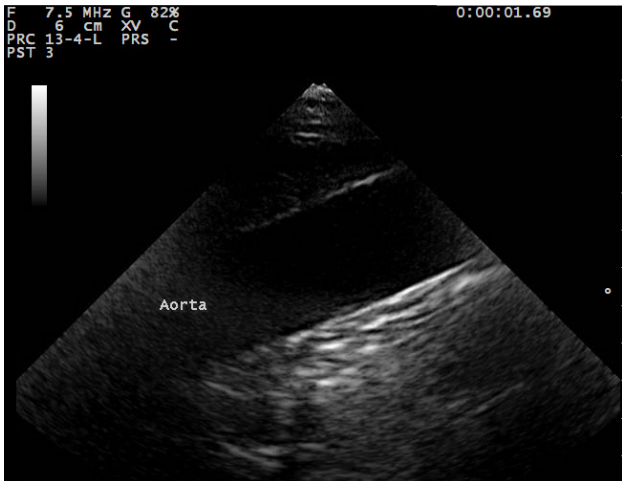
Echocardiographic image showing right ventricular hypertrophy and right atrial enlargement.



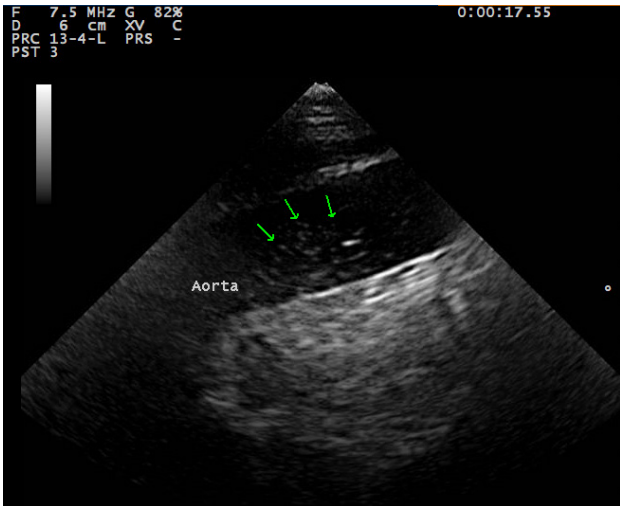
ECG recording showed sustained normal sinus rhythm with an average heart rate of 120 beats/min and right deviation of the mean electrical axis.

perfuses the forelimbs and head. The same mechanism explains the presence of hindlimb weakness in these patients.

Surgical ligation or interventional embolisation of reversed-PDA are contraindicated. This is due to the potential exacerbation of the existing pulmonary hypertension. Clinical management of these cases is usually conservative. It aims to control the possible onset of polycythaemia. We started Harper on sildenafil (Viagra) to try to reduce pulmonary hypertension and the rate of right-to-left shunting through her PDA. Within a week, Harper's carer observed an improvement in her clinical signs. Our Cardiology team will keep monitoring the progression of her condition.



Ultrasound image of the abdominal aorta prior to the injection of agitated saline ("bubble study").



Ultrasound image of the abdominal aorta following injection of agitated saline in the cephalic vein. The green arrows show the presence of "bubbles" in the aorta confirming the presence of a right-to-left shunt through the PDA.

Although, in this case, some of the clinical signs at presentation suggested reversed-PDA, other more common abnormalities (metabolic, neuromuscular, orthopaedic) were initially investigated. Harper's story demonstrates the importance in some patients of a multidisciplinary approach to reach a definitive diagnosis and provide successful clinical management.

Sheikh is a 6-year-old, male neutered, Domestic Shorthair. He was referred to our Emergency and Critical Care Service for acute onset of lethargy, anorexia and abdominal pain. Sheikh is an indoor cat and had previously been healthy. His referring practice had identified severe azotaemia [creatinine 1256 (44-194), urea >49.98 (6.1-12.5)] and painful kidneys.

Sheikh presented dull with a very painful left kidney. He was oliguric, and abdominal ultrasound showed marked renal asymmetry. The right kidney was small and shrunken; this most likely represented chronic disease. The left kidney was large and hypertrophic. There was retroperitoneal and peritoneal effusion and steatitis around the left kidney. This was probably due to an acute disease process.

At this stage, we were unsure whether this was an infectious/inflammatory process or neoplasia. We performed a fine needle aspiration of the left kidney. The results did not show any signs of neoplasia, yet they were also not diagnostic of an underlying disease process. Retroperitoneal fluid analysis was also performed and was consistent with urine leakage. Urinalysis showed isosthenuria and bacterial growth for which antibiosis was started. Sheikh's presumptive diagnosis was acute interstitial nephritis of unknown aetiology.

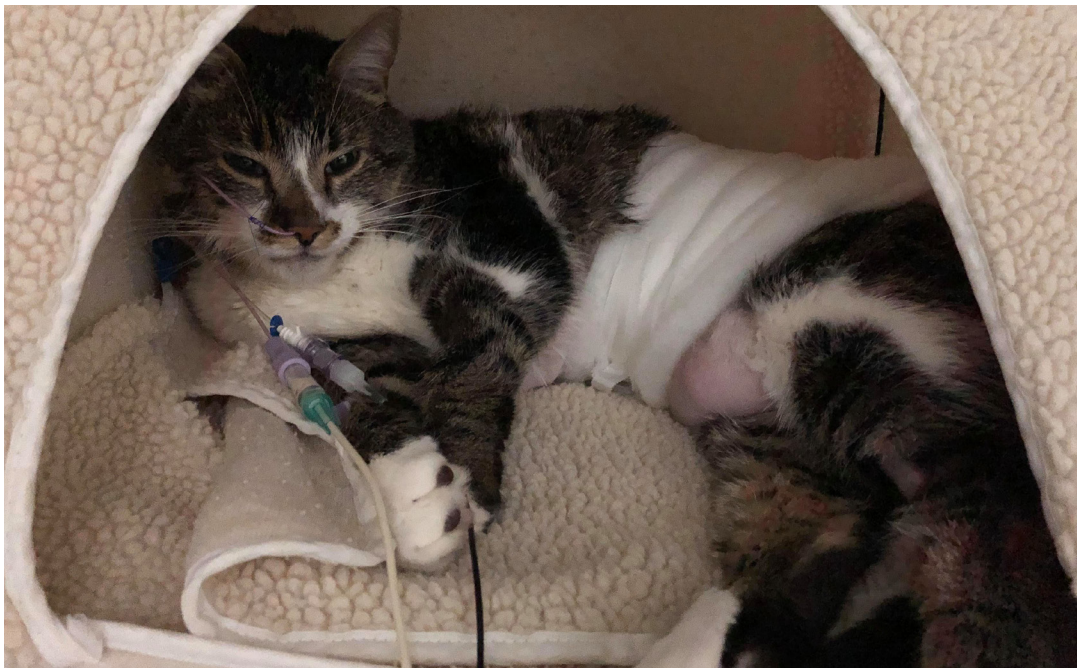
We admitted Sheikh to our Cat ICU for conservative treatment of acute kidney injury. He had a urinary catheter and a nasogastric tube placed for monitoring of ins and outs and to provide enteral water and nutrition support. We started him on hypotonic maintenance fluids along with nutritional support which he tolerated well. He was also polydipsic through this time and maintained a reasonable appetite.

Sheikh in our Cat Intensive Care Unit.

Sheikh's renal parameters initially improved but they then plateaued. He developed positive fluid balance due to persistent oliguria and remained dull. We stopped intravenous fluid therapy and attempted diuresis with furosemide to no effect. Sheikh's carers were advised that his prognosis for short-term recovery was very guarded and that his long-term survival was likely to be reduced. There was a high likelihood of chronic disease in his one remaining functional kidney.

His carers wished to give Sheikh every opportunity, and so we proceeded with peritoneal dialysis (PD). An omentectomy

was performed and a PD catheter was placed in surgery. Renal biopsy was not done as we assessed this to carry more risk than benefit. We performed dialysis for 3 days. Sheikh's other medical therapy consisted of antibiotics, gastrointestinal protectants, antinausea medication, analgesia and nutritional support.



Sheikh undergoing peritoneal dialysis.

Throughout the following days, Sheikh began to improve. He was brighter, his appetite improved, and his fluid overload cleared. Plus his azotaemia entirely resolved before he went home! We are all surprised by how well Sheikh has done. His prognosis is still poor with a high likelihood of chronic renal failure, especially as he only has one functional kidney. Yet he is currently doing well: we have heard from Sheikh's carers that they are happy having him home where he is active, playful and eating well.

DID YOU KNOW?

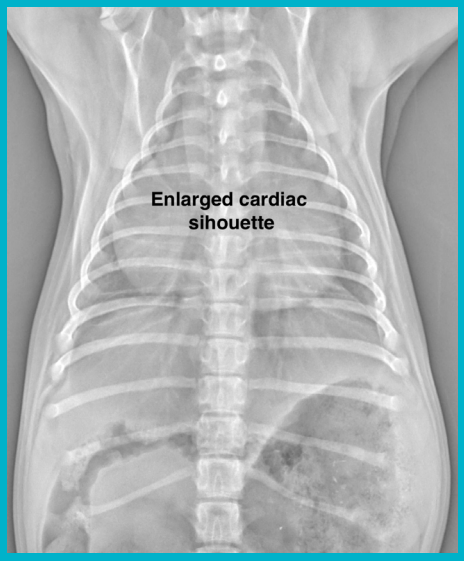
Our Emergency + Critical Care Service operates **24-7-365.**

Buddy, a 3-month-old entire male Crossbreed, presented to The Ralph for a large cranial ventral abdominal hernia. The carer reported no clinical signs and Buddy appeared to be a happy and active puppy.

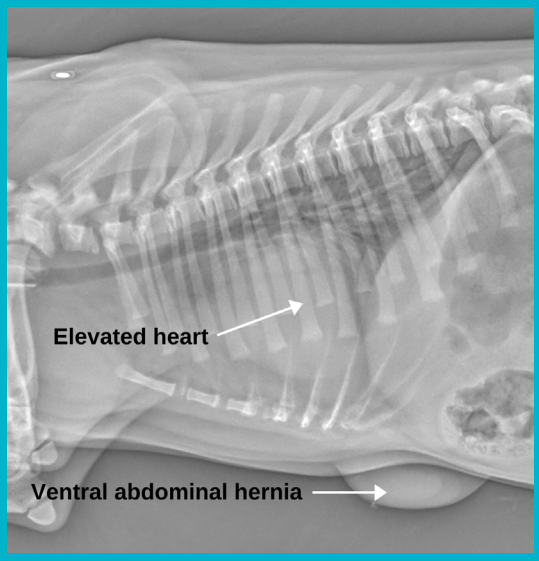
Buddy with Jess from our Customer Care Team.

The hernia was approximately 2cm in diameter. It was covered by thin skin, and part of a liver lobe was palpable. A dorsoventral and right lateral radiograph of the thorax were taken. Radiographs demonstrated a dorsal displacement of the trachea and cardiac silhouette by a mixed fat and soft tissue opacity in the ventral thoracic cavity. On the dorsoventral radiographic view, the cardiac silhouette appeared severely enlarged. There was also hypoplasia of the caudal sternebrae. A small soft tissue opacity structure was seen within the subcutaneous, palpable hernial sac at the level of and ventral to the diaphragm.

Based on the radiographic findings, a congenital peritoneopericardial diaphragmatic hernia with hypoplasia of the sternum and a cranial ventral abdominal wall hernia were suspected.

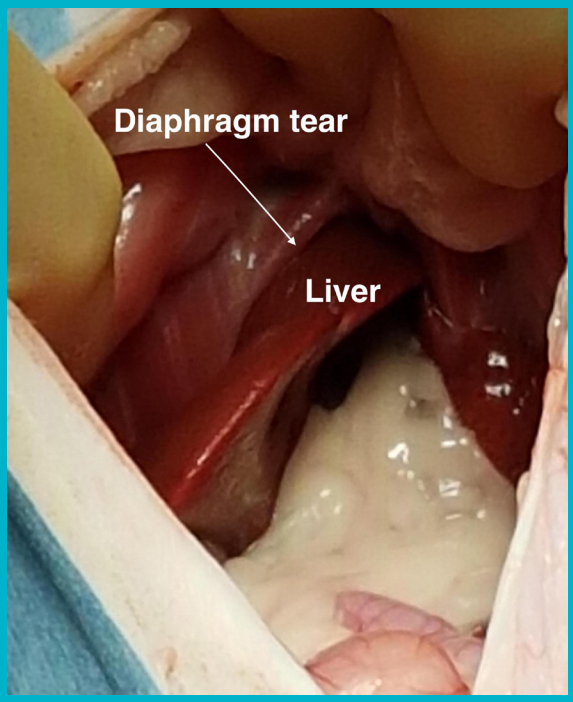


Ventrodorsal radiograph of thoracic cavity showing enlarged cardiac silhouette.



Right lateral radiograph of thoracic cavity, demonstrating elevation of the heart by a soft tissue density.

Congenital PPDH is rare. It is due to malformation of the transverse septum and pleuroperitoneal folds during embryogenesis. PPDH often occurs with other congenital abnormalities including abdominal wall hernias, sternal abnormalities and cardiac defects. The most frequently herniated organs include the liver, gall bladder and small intestine. 40% of cases are incidental findings and need no treatment. In Buddy's case, we had to repair the abdominal wall hernia, and so we corrected the PPDH at the same time.



Intraoperative view showing herniation of liver lobe through the diaphragm.

Our surgeon performed a standard ventral midline celiotomy and identified the PPDH. Omentum and the majority of the liver were herniated into the pericardium. The herniated organs were reduced after enlarging the diaphragmatic rent. Although the liver lobes were misshapen, they appeared viable. The lack of visibility of the lungs confirmed this was a congenital PPDH. Our surgeon closed the significant defect in the diaphragm using the pericardium and simple interrupted polydioxanone sutures. The remaining air was removed from the pericardial sac. The cranioventral midline abdominal wall hernia was apposed routinely. The fragile skin covering the herniated contents was excised before closure.

Buddy made an uneventful recovery from surgery. We discharged him the following day to continue his recovery under the watchful eye of his carer. We are pleased to report that Buddy made a full recovery and his long-term prognosis is excellent.

GET IN TOUCH!

Our surgery team are always happy to give general advice and to discuss all things soft tissue!
Drop us a line at **surgery@theralph.vet**

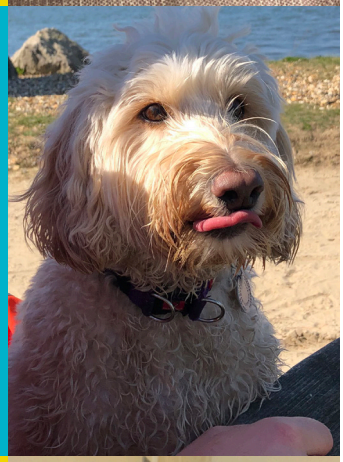
Our patients one year on...

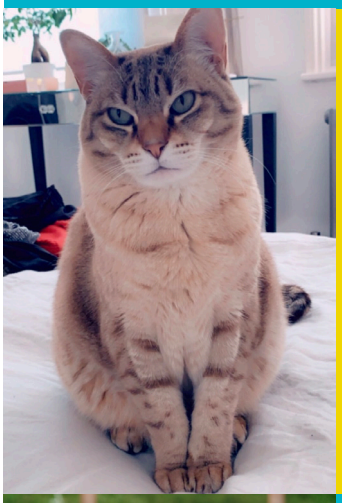
MARGO

Margo was referred to us almost a year ago having vomited up pieces of a rubber toy. She needed multiple surgeries and treatments, but recovered really well. She is back to her usual self, eating very well and is happy and content with her family including brother Barclay (see right).

MAISIE

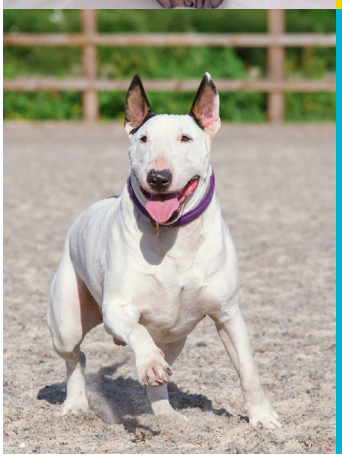
Maisie was referred to us as an emergency following sudden onset of vomiting, regurgitation and inappetence. An abdominal ultrasound indicated an obstruction in her small intestine, which turned out to be a corn on the cob wedged at the entrance of her bowel. Surgery and recovery went well for Maisie and her family, and she is all fun-loving and happy again!





COCO

Coco fell out of the window and fractured her paw last year. Our surgery team operated on her and she healed very well in the weeks and months after. She is a sweet, soft loving member of the family!



ROO

Roo became listless and very sick about a year ago. He was referred to us for investigation and we discovered several ulcers. Over the course of the last year, our Internal Medicine team have been treating Roo. His carer says that while he has had his battles with illness and anxiety from previous mistreatment, he enjoys life to the full and is now the joker of the family.

CPD CORNER

Let's get quizzy with the Ferasins!

Join Luca and Heidi Ferasin for our Cardiology CPD Quiz on Thursday 12th March. Discover the most common mistakes in the management of dogs and cats with cardiac disease, and how to avoid them! The session titled **'Top 10 mistakes in small animal cardiology'** will cover a wide range of topics including:

- Radiographic interpretation
- Echocardiographic exam
- Clinical signs of heart failure
- Diagnostic tests
- Use and misuse of cardiac drugs

FOOD & DRINK will be available from **7:30pm**, with the session starting at **8:00pm**

For more details and to book your space, visit www.theralph.vet/events

GET IN TOUCH

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