

Farm news



Sandy Jamieson
BVM&S MRCVS



Summer mastitis or August bag

The name gives a big clue to this condition. This is a potentially devastating mastitis predominantly seen in dry cows and in-calf heifers (but can affect any animal; beef cows not just dairy, and also bulls/bullocks/calves) during the summer. By the time the animal is picked out the quarter is normally beyond repair and treatment is for salvage. Also, because of the fever and toxins involved, there is a significant risk of the animal aborting.

Causes

The bacteria involved are *Trueperella pyogenes*, *Peptostreptococcus indolicus* and *Strep. dysgalactiae*. The condition may start from teat sores but the head fly is heavily involved in its spread, hence its occurrence predominantly in July, August and September when head flies have hatched and are on the wing. The flies like damp, humid conditions and low wind speeds which means certain fields will pose a higher risk (ponds and woods).

The affected animal is often dull, slow to move and may appear lame. On closer inspection one quarter (or more) will be obviously enlarged with the teat swollen. The animal is normally pyrexia with a temperature of 104 or more. The teat will be hot and sore to the touch (good way to get kicked) and when drawn the pus is like a yellow/green thick rice pudding with a really foul smell (you wouldn't eat much of it).

Treatment

Treatment will normally save the animal but unless caught very, very early the quarter is unlikely to recover. Antibiotics by injection (Pen-strep/Betamox/Synulox) along with non-steroidal anti-inflammatories (Finadyne/Ketofen/Metacam) should be administered and the quarter stripped as often as possible (the strippings should not go onto the ground as they are a source of further spread; dispose of using plenty of disinfectant). Intramammary preparations can be used but the pus is often so thick it is difficult to imagine how useful they will be. Treatment should be kept up for a minimum of 4 days and potentially 7 days.

People will often say that the quarter will only clear up once it actually bursts like an abscess which is why older treatments have involved splitting the teat top-to-bottom to facilitate drainage (this does carry a risk of haemorrhage!).

Prevention

Prevention is therefore the most important thing to concentrate on.

- Stockholm tar applied to the teats was the original favourite but is really messy and needs done very regularly (looks really bad on your sandwiches).
- Fly prevention using either tags or permethrin pour-ons is definitely easier and for peak periods a small amount of pour-on can be directly smeared on the udder.
- Antibiotic dry cow tubes and teat sealants are also effective but are difficult to use successfully in heifers and beef cows, but in conjunction with fly control would be gold standard.
- If it's a recurring loss on a certain farm then calving policy may have to be changed so that animals are calved before the risk period.



Head fly, or *Hydrotaea irritans*.

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Emily Sycamore

Welcome back Emily

We're delighted to welcome back Emily Sycamore as she returns from maternity leave. Emily's been with us for 10 years and will now be taking up a position as Senior Vet. She's very much looking forward to getting back to work!

Carolyn Baguley

MA VetMB CertAVP (Cattle) MRCVS



Editor's Note:

Goodbye to Sandy

My first encounter with Sandy was in 2010. I was alone on a rainy night in deepest darkest rural New Zealand, while he was on the other end of the phone in sunny Derby. He was interviewing me for a job, and after he'd checked that I could calve a cow, amputate a digit and treat a toxic mastitis, he spent the rest of the interview talking about rugby and wildlife. I liked him immediately.

Sandy's been a mentor, sounding board, supporter and friend to countless vets and students. His knowledge, experience and wisdom means that nothing fazes him, but his groundedness, generosity and humility make him approachable and great company. He's cool in a crisis, fiercely loyal to those close to him and fiery when he perceives injustice. He's a natural storyteller and an excellent listener, and there's no-one I'd rather turn to when I know I've made a mistake or things have gone wrong.

He retires this month after nearly 35 years of vetting, and it's a pleasure and a privilege to have worked with him. We'll miss him hugely but wish him all the very best for a well-deserved retirement full of bird-watching, rugby, beer and travelling to far-flung places to see tigers, tapirs and toucans. And if you'd like to catch up with him or buy him a drink, you'll probably find him in a pub not too far away.



Sandy's Story

Sandy joined the practice in 1987 and has now taken on the title of longest-standing member of the Scarsdale Vets team. Over his time here he has been an assistant, Farm Vet, Equine Vet, Chairman, Partner and more recently a Clinical Director. Throughout the years he has seen not only the practice itself adapt and change but also the many different ways that the industry has had to adjust.

Where it all began

As a child Sandy described himself as someone who wanted to be covered in dirt and soil all the time. Little did he know that this love for being muddy and grubby was going to pay off later down the line (being a farm vet is a very messy job to say the least!)

However, Sandy's desire to become a vet actually began after a very unfortunate trip to the vets involving his dog, a rather small parachute and a window!

He was fascinated by what the vets did and then went rushing into school to tell his teachers about his career epiphany, soon to be met with a negative reaction.

"I told the teachers at school that I wanted to be a vet, but they explained to me that no one ever does that... which of course made me even more determined."

As he grew older his desire for being medical didn't disappear. At one point the idea of being a doctor became more fascinating, but he soon decided that wasn't the path he would take.

"I wanted to be a doctor, but I don't like people... I liked animals and as a vet you can do everything yourself from x-ray to diagnostics to surgery."

So, after finishing school in Nottingham, Sandy went to The Royal (Dick) School of Veterinary Studies in Edinburgh and graduated as a vet in 1987. Sandy originally saw practice with Taylor-Thompstone (Scarsdale Vets' former name), but they couldn't always accommodate so they suggested he went to Ron Christie's practice.



Sammy's Christening with Sandy and Martin

Ron originally said he didn't take on students but after having a pint with Sandy his arm was twisted. Sandy was then offered a job at Ron's mixed practice that consisted of two vets (Sandy being one of them).

After a year, Taylor-Thompstone brought Ron's practice and so in 1988 it turned into a farm and equine practice near the old Greyhound stadium. The farmer's market used to be on for two days a week back then, and the farmers would turn up in the stadium car park and collect their medicines. Sadly, the Greyhound stadium went bust and the car park couldn't be accessed anymore so Tony Thompsonstone and Tom Craig had to have a think about what they could do.

They knew the people who owned the (now) Markeaton practice as it was an old riding school, and in 1991 it was decided that they would start up a farm and equine practice on Markeaton Lane. No-one has ever looked back ... well, maybe a few did! In those days they had no equine vet, so because Sandy owned the most horses, he took on that role.

"The early 90s was a real glory time for us, milk prices were good, loads of clients, lots of practices wanting to concentrate on small animal and so we could then acquire the farm and equine sides of their businesses."

Changes over the years

Sandy explained that the biggest change is how many farms have closed down due to the slump in the dairy industry and the pressures on it. We are also missing a generation of young farmers as less ongoing dairy businesses have been handed down.

He also described the consequences of these pressures,

"We have lost a lot of the characters and smaller farms and now we have bigger units under a lot of pressures due to public and supermarket demands. The farmers have to jump through more hoops to get their products on the shelves and when it eventually gets there, farmers cannot dictate what they get paid, so that means it affects us when selecting our prices. We cannot increase prices if our farmers are being paid less and less for their milk."

"In 30 years, milk prices have gone back to exactly what they were when I qualified which is just crazy. Could you imagine going to the pub and paying 1987 prices for a pint?"



Paula, Rose, Sid and Sandy before running the Hairy Haggis

The impact on Scarsdale Vets

Due to the fall in milk prices it has meant farmers have had to make cuts and a lot of this has been in veterinary care. Farmers are becoming more trained themselves now so are giving better basic care to their animals.

“The typical day used begin by going to see a milk fever at half 5 every single day. Nowadays you will never see a primary milk fever because the farmers will have treated them themselves. Originally, they would only have treated them with subcutaneous calcium but now they are putting the calcium into the vein. Why would they pay you for it when they can do it themselves?

When we started, the Weston Underwood Road had twelve dairies on it and now we only have one on that road and one just off it. We would visit farms for lots of little small things, but now we are travelling to larger farms to see around 20-50 cows. So, the actual work type has changed massively over the 30-year period.

We also give a lot of help with building design as pneumonia in calves is something that many farmers are trying to tackle, and this can bring about a huge loss for farmers.”

Technology

Over the last 30 years there has been a significant advance in technology, and this has also impacted the large animal veterinary industry. The use of data analysis is now massive. Years ago, a farmer would have a cow, calve it once a year, milk it and then he would be happy with that. Now, you can drill down to how many services it's had, how many days it's taken to get in calf, the costing of it, exactly how much milk it is giving, cell count, what its milk proteins are and even what its butter fats are!

Equipment has also advanced, Sandy explained:

“Ultrasound was something that never existed when I started out and now it is extremely important, and everyone is using it whether it be on the equine side for diagnostics or on the cattle side for pregnancy. All the farm vets now have their own ultrasound scanners whereas 30 years ago they wouldn't have.”

Advice from the expert

Sandy offered up some wise advice for budding students looking at going into the large animal veterinary industry.

“To go into large animal veterinary medicine, you need to like communicating with people and being out and about. You have to be able to talk to the simplest farm hand and not make them feel patronised but also talk to a progressive farmer and look like you know your stuff.

You also can't be focused on finishing at a specific time or be bothered about missing out on a weekend. You really have to knuckle down, especially in your first few years and this will paint you in a really good light and help you to progress your career.

People get put off because they do so well with their qualifications and then when they begin work a lot of it to start with is quite mundane. Once you've had your hand up 50 cows' backsides, they are all remarkably similar. But hang on in there!”

Stand out moments

What Sandy likes most about Scarsdale Vets is the closeness of the teams. When the practice first moved to Markeaton Lane there were only 6 people - now there are nearly 20 vets and nearly as many supporting staff.



Sid and Sandy in the Great Markeaton Flood of 2012.

“I think the camaraderie within the whole practice makes working here great. The relationships with the clients are also something that makes work enjoyable, they are more like friends than clients.”

“Our first successful surgery was on a Shetland pony from a pub in Duffield. It had a sarcoma on the end of its penis. So, we got the book out, knocked the pony out and performed the surgery.

After, we went back to the pub to see how he was getting on and turns out that we hadn't quite rigged everything back up correctly as when the pony urinated it went straight past his ear and onto whoever was feeding him!”

Another memorable time for Sandy was the foot and mouth outbreak in 2001. James Hollingworth was working the weekend and went to Marston-on-Dove to investigate why a farmer's lambs were dying. He then went and saw about 6 other farms after that...

James then turned to Sandy the next day and said “his lambs are still dying, what do you think it is?” Sandy then replied, “What about foot and mouth - that kills lambs instantly?” and it was then that he saw the colour drain from James' face.

So, Sandy and James then had to notify everyone about it and all of a sudden, we were very busy handling the outbreak. Amazingly, James hadn't spread it to any other farms due to his great disinfecting!

Sandy sums up the last 30 years,

“For me everything has always revolved around just doing the job. The customers and the animals are what's important. I think that the art of veterinary science is keeping the clients happy and coming to the conclusion that they want. All they want is for someone to communicate with them on their level with a tailored approach and you can keep them happy, then through word of mouth you excel.

And if I'm honest I think the most surprising thing is that after all these years I still actually like cows!”



Goodbye Sandy...



Parasite of the Month: *Haemonchus contortus* in small ruminants



Dr. David Charles
CertHE(Biol.) BVSc MRCVS

Haemonchosis affects sheep and goats of all ages at pasture. It can also affect cattle, however, unlike sheep and goats, cattle develop a level of immunity from 12 months of age.



Microscopic image of 11 *Haemonchus contortus* adult females.

Image courtesy of CSIRO

Caused by the blood sucking parasitic worm *Haemonchus contortus* (aka barber's pole worm due to its red and white striped appearance), haemonchosis is generally seen from mid-spring to autumn, when the temperatures rise allowing hypobiosed (dormant) larvae to emerge from the abomasal lining and mature to the blood sucking adults. Warmer, wetter weather also lets the earlier (L3) stage larvae & eggs develop at pasture.

H. contortus adults are found in the abomasum where they latch on to the mucosa and suck blood. When they detach, the abomasal mucosa continues to bleed leading to severe anaemia and death. A single adult *H. contortus* can remove 0.05ml/day so

infection with 5000 worms can cause 250ml of blood loss/day¹. It is also important to note that females are prolific egg layers and can produce 5000-6000 eggs/day each.

Three types of haemonchosis exist:

- **Acute:** presenting with sudden onset anaemia +/- sudden death due to high worm burden and high blood loss. Often seen in young animals or animals with a low body condition score that cannot produce red blood cells fast enough to replace those lost.
- **Sub-acute:** Occurs when red blood cells are produced at the same rate as they are lost to the parasite, however this puts a drain on the bone marrow supply and often progresses to acute disease. As well as the chance of progressing to acute disease, sub-acute haemonchosis causes lethargy, slow growth rates and weight loss.
- **Chronic:** Usually with a low burden where the affected individual(s) can produce red blood cells faster than they are lost to the parasite, although pallor and a low level of anaemia are often seen +/- weight loss due to the persistent protein drain. A 'bottle jaw' can be seen in some cases.

Unlike most small ruminant diseases caused by parasitic worms, diarrhoea is not a feature of haemonchosis.

Diagnosis

Diagnosed through faecal egg counts & clinical examination, you may see us use an eye colour chart (the FAMACHA system) for grading anaemia in relation to *H. contortus* burden. The chart allows us to assess the degree of anaemia, and therefore *H. contortus* burden, by tracking changes in membrane colour. In more severe cases haemonchosis is diagnosed at post-mortem examination.

Control is through having a good parasite management system. Regular faecal egg count tests should be performed, especially through the warmer risk period and if treatment is indicated, a faecal egg count reduction test performed to check resistance status. *H. contortus* resistance is a particular problem, so treatment should be targeted and specific rather than blanket treatment across your entire flock.

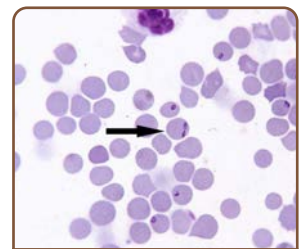
As with all parasite control strategies, quarantine of new stock and quarantine treatment is paramount. Barbervax is a vaccine against haemonchosis that is licensed in Australia and South Africa, to help reduce haemonchosis by reducing egg counts and worm burden. In some circumstances, it may be possible to import this vaccine for use in UK flocks.

If you are worried about severe haemonchosis in your flock please do contact us to discuss control strategies further.

[1] - Taylor et. al, 2007

Surveillance Focus: Babesiosis/Redwater fever in cattle

Babesiosis is a disease caused by a single-celled parasite (*Babesia divergens* in the UK) which infects red blood cells, eventually causing them to burst. It is spread by infected blood-sucking ticks and, although is often a mild disease, can have a significant impact on productivity and fertility. The disease is usually seen in adult cattle since calves under nine months are innately resistant and also often have some protection from maternal antibodies on *Babesia*-infected farms.



Babesia divergens (piroplasm stage) infecting red blood cells of a cow. Giemsa stained.

Image courtesy of Alan. R. Walker, licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license.

Clinical signs begin about 2 weeks after infection, and include a sudden fever, diarrhoea followed by constipation, red urine (caused by the haemoglobin pigment from the burst red blood cells), anaemia (with rapid pulse, fast breathing and pale membranes), milk drop, depression and weakness, and abortion of pregnant cows. Diagnosis is made on clinical signs, a history of grazing tick pastures, visualizing the parasite under the microscope in blood smears or PCR of blood samples. Treatment is possible. There is no vaccine, although repeated exposure means immunity develops over time on infected farms. Naive adult cattle bought into infected herds are particularly at risk of disease, as are naive herds grazing on newly-acquired tick-infested land.

Babesiosis is usually seen from May to November when the tick host (the sheep tick, *Ixodes ricinus*, in the UK) is active and herds are out at pasture.

Babesiosis, along with other tick-borne diseases, is endemic and widespread in parts of the west country, Cumbria and upland areas of Wales, but has also been diagnosed in other areas of the country including Staffordshire. As our climate changes and ticks spread geographically and increase in number, this is a disease to watch out for. If you notice any suspicious signs in your cattle, especially if they are grazing tick-infested pastures, please do contact us and speak to one of the vets.

During this grazing season, until autumn 2021, the APHA are offering free PCR testing for babesiosis on blood samples. These can be submitted from up to three cattle displaying clinical signs of babesiosis per farm. Both beef and dairy animals at grass can be sampled, and the full animal ear tag number and the OS map reference/what3words address of the affected grazing field will need to be included.

The information gathered will contribute valuable surveillance data on babesiosis and other tick-borne pathogens in different regions of GB. All data will be anonymised for inclusion in this study. The APHA may also contact participating vets/farmers to collect further epidemiological data to help them understand risk factors for redwater in cattle, and why prevalence varies across different areas of Great Britain.

Farm and Equine Centre
Markeaton Lane, Markeaton, Derby DE22 4NH
01332 294929

Alfreton
01773 304900

Pride Veterinary Centre
01332 678333

Allestree
01332 554422

Shelton Lock
01332 700321

Hilton
01283 732999

Stapenhill
01283 568162

Langley Mill
01773 304914

Stretton
01283 565333

Mickleover
01332 518585

Wollaton
01159 676586

Oakwood
01332 666500