



Seizures – more than just old age?

Emily Fowler looks at a newly recognised condition that's affecting older cats all around the world, 'Feline Audiogenic Reflex Seizures'

The feline health and welfare charity International Cat Care (icatcare.org) is often the first port of call for cat owners with concerns about their pets. After being unable to find anything documented about an issue they were receiving enquiries about, cats having seizures that appeared to be caused by certain sounds, the charity approached Davies Veterinary Specialists (vetspecialists.co.uk) to find out if their experienced veterinary neurologists could help.

Mark Lowrie and Laurent Garosi from Davies Veterinary Specialists, along with Robert Harvey from the UCL School of Pharmacy, London, decided to investigate in the hope of establishing what exactly was going on, as well as how to help any cats



that might be suffering from this issue. Working alongside International Cat Care, the team studied hundreds of cats from all over the world and discovered that people were in fact noticing that certain noises triggered seizures in their cats, something that's disabling for the cats and very frightening for their owners.

Mark Lowrie, a RCVS and European Specialist in Veterinary Neurology and lead author of the study¹, explained that the amount of correspondence they received indicated the condition is a real concern: "I now realise this is incredibly common and although many owners do approach their vet about it, others dismiss it as 'old-age'."

Feline Audiogenic Reflex Seizures

The condition has been called feline audiogenic reflex seizures (FARS), referring to the fact that the seizures are happening in response to certain sounds, and the study discovered that there are three different types of seizures that owners observe in relation to sound stimuli.

Generalised tonic-clonic seizures:

This relates to the stereotypical image of what a 'seizure' is, when the cat loses all awareness and collapses. They typically only last a few minutes but are frightening to witness as the cat will make chomping and chewing movements, foam at the mouth, move its legs in a paddling motion and sometimes lose control of its bladder or bowels.

Myoclonic seizures: This type of seizure results in brief muscle jerks and twitches, often only lasting for a fraction of a second and many cats are reported to appear

conscious throughout. The study results indicate that this is the most common type of seizure associated with FARS, and this has led to the condition being dubbed 'Tom and Jerry Syndrome', after the cartoon cat Tom who we often see reacting to sounds with startled jerks and twitches.

Absence seizures: Also known as 'petit mal' seizures, a cat will lose awareness of its surroundings for up to 20 seconds. These types of seizures are very easy to miss.

FARS Triggers

So, what triggers FARS? One common feature of the noises reported to trigger FARS was the fact that they tended to be fairly high-pitched and quiet, with the most common sounds including crinkling tin foil, paper or plastic bags, tapping glass, the sound of a computer keyboard or mouse and keys or coins clinking. Less common triggers included the sounds of mobile phone texting, running water and Velcro.

What the study suggests

Being able to look at cats with the same problem from all over the world gave the team some valuable insights into which cats are more at risk of developing FARS. The average age of cats with this condition is 15 years old, with the youngest cat in the study 10 years old. This indicates that it's something that develops in older cats, and around a third of the cats with the condition in the study were Birman, which would suggest that it's more common in that particular breed.

Interestingly, half of the cats in the study were described as having some hearing difficulties, with some even

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being completely deaf. At first glance this might be difficult to understand; after all, these seizures are caused by sounds, so how is it happening in cats that are partly or even fully deaf? This is where a cat's amazing ultrasonic range of hearing comes in, and the fact that hearing loss in cats tends to happen at the lower frequencies, while they usually retain

their ultrasonic hearing abilities. Think about the types of noises that were listed as being common triggers to a seizure; they're high-pitched and probably more in the frequency that cats are able to hear even with hearing loss (much like their natural prey!).

Treatment of FARS

In order to treat FARS, it has to be diagnosed, and as it's still a newly recognised condition, not all vets are aware that it even exists.

The most successful treatment is with an unusual anti-epileptic medication called levetiracetam, and the use of this medication has shown dramatic results. While it's used in dogs and cats, it's not often used as a first line medication by vets but the fact that it has been shown to be more effective at treating FARS than any other anti-epileptic medication, and causes less side effects, means it's a fantastic treatment option.

"Avoiding noise is the most important treatment for FARS but of course this can be difficult, given the type of

noises that cause this. The main thing to remember is this is a degenerative condition so the problem will get slowly worse with time, regardless of treatment," said Mark. "However, with treatment we hope that cats will get worse at a much slower rate and therefore enjoy a longer quality of life. It isn't a painful condition and so owners do not need to be concerned about pain or suffering in this sense."

While FARS isn't a new condition, the fact that it's only recently been recognised means that many vets are still unfamiliar with it. If you suspect that your cat might have FARS, don't be worried about suggesting it to your vet yourself, as they'll be very happy to find out more - to be able to help your cat, and any other cats they treat that might have the condition. 🐾

¹Lowrie M, Bessant C, Harvey RJ, Sparkes A and Garosi L. Audiogenic reflex seizures in cats. J Feline Med Surg. Epub ahead of print 27 April 2015. DOI: 10.1177/1098612X15582080

Mark Lowrie's 3 key tips

- If you witness your cat having a seizure, try to film it with your smartphone or camera, so your vet can see exactly what's happening.
- Early treatment is the key to success – starting your cat on levetiracetam early will help slow the progression of the disease.
- Be aware that cats with this condition can go deaf or become hard of hearing, despite their sensitivity to noise

- The full study can be read for free at: <http://jfm.sagepub.com/content/early/2015/05/22/1098612X15582080.full.pdf+html>

