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Why a Hare is not a R abbit

So why isn't a hare a rabbit?

They are the same family (Leporidae) but different species, so about as alike as a sheep and a goat.

Rabbits have kittens or kits, which are born bald, blind and helpless.

Hares have leverets which after a longer gestation, are born hairy, with open eyes and mobile.

This is important as rabbits dig burrows but hares spend their life above ground (so leverets don't have anywhere to hide!). That is unless you are an American cotton tail rabbit then you are the exception to the rule, and don't burrow.

The other exception is Bugs Bunny, who is actually a hare, that does burrow. Apparently.

The term 'mad as a march hare' refers to the hares boisterous mating rituals. The male has to chase the female and she will only mate with him if he can catch her. She may still reject him, at which time she can become quite aggressive.

And hares are fast. They can run at up to 75kph. That's not as fast as a cheetah (the fastest land animal) at 95kph, but relative to body size is quicker (the hare can move at 37 body-lengths per second compared to the cheetah's 23 body-lengths per second). Both look pedestrian compared to the peregrine falcon which can hit 320kph in a full dive. Hares are not amenable to domestication, and make poor pets. That said foxes have always been viewed as undomesticatable, but selective breeding of foxes in Russia has produced docile friendly animals in just a few generations.



Arguably allergies are becoming more common, in people and pets. Or we are better at identifying them. One theory suggests young animals exposed to a diverse range of allergens understand their environment better and get less allergies. An extension of this theory is that as we have eliminated most intestinal parasites, a whole group of allergens are missing from young animals lives (only 5% of puppies have worms). I will let you work out one possible solution.

Allergies have been recognized for thousands of years, even if not for what they were! In 1819 a Dr John Bostock described Hay Fever and the basis of allergic disease as we know it today was founded. In the late 1800's skin testing came in to vogue, by rubbing pollen in to a small cut and watch for a reaction. Its not so obvious what the reaction was but punching the physician on the nose does appear to be on the list, for stabbing their patient. During the first world war immunotherapy appeared. This is still used today and aims to gradually expose the patient to increasing levels of the substance to which they are allergic, so that over time the reaction they experience decreases. In the 1930's antihistamines started for treating allergies. Antihistamines work quite well in people as histamine makes us itch. So, if we take an antihistamine, we nip the whole reaction in the bud. Unfortunately, in pet's histamine doesn't cause itching: the inflammation causes the itching. This may seem a subtle differentiation but what is really means is the skin is already damaged by the time dogs and cats scratch. This is not the case in people. As such antihistamines can have a preventative role in pets, but only a limited treatment role. Then in 1948 everything changed. Cortisone (an acronym based on corticosterone. The acronym came in to use as originally it was called substance E, which was getting confuse with vitamin E). Anyone with an older allergic pet has almost certainly come across cortisone in one form or another. Cortisone has wide ranging effects within the body (it is part of the fight-and-flight response, so is designed for crisis management), so whilst it was very effective it was also associated with side effects. Most medical efforts were based on trying to minimize cortisone doses and thus associated side effects. However, in the last decade or so a range of new options appeared which have revolutionized how we treat allergic dermatitis in pets. Now not only do we have newer medications with less side effects, we also have drugs with different mode of action, so if one doesn't work one of the others might. The next article describes some of these new medications.

New kids on the block

ATOPICA is the veterinary microemulsified formulation of cyclosporine, which has been available for the best part of 2 decades. Atopica mainly affects T cells. Cyclosporins were the first real alternative to cortisone for acute management of allergic dermatitis. Cyclosporins only work for atopy (airborne) allergies, not other types such as food or contact. The most significant side effect observed is gastrointestinal, with up to 40 percent of patients experiencing this side effect in some studies. It is also an immunosuppressant so does predispose to infections as cortisone does. It is mostly used in animals where cortisone was effective.

APOQUEL is a newer therapy option that emerged a few years ago for treatment of allergic skin disease. Apoquel is from a family of drugs called JAK (Janus Kinase) inhibitors. Unlike cortisone with its far reaching effects, JAKi's are much more specific in their actions. That means they are only useful for a very limited range of disease conditions, but cause far fewer side effects. In effect they stop the itch reaction within the skin. Their main effect is inhibiting pruritis (the desire to scratch), ions as cortisone does. It is mostly used in animals where cortisone was effective.

CYTOPOINT is a monoclonal antibody to IL-31. What does that mean? It means it works a bit like an anti-itching, anti-serum (like an anti-venom for a snake bite). It is generally given about once a month as a single injection. To date reports of side effects are minimal. Some animals appear a bit lethargic for 1-2 days after the injection. Cytopoint also has the advantage of working for allergy types other than atopy (food allergies for example)

And the not so new.

Corticosteroids have been used for decades and have withstood the test of time. Corticosteroids are non-specific in their mechanism of action, since corticosteroid receptors are in every cell. Side effects of corticosteroids are well known. Having said all that cortisone is highly effective, and in part its effectiveness is hampered by excessive concern about side effects.

With any medication the equation is really quite simple.

What's worse. The disease or the medication. If the medication is worse than the disease don't take it. If the disease is worse than the medication, and there isn't a better option, then use it. You don't use chemotherapy for a headache, but if you have cancer as unpleasant as it may be, it can save your life!

And cortisone is relatively cheap compared to the newer medications, so can be a very good option for occasional or short term use.



Keeping indoor cats happy

Should cats go outside? There isn't an absolute answer to this question. What's the best car? Well it depends on what you want it for. A family of 5 don't fit in a sports car. A people mover won't go 0-100 in 3 seconds and resolve a mid-life crisis!

In Australia we have 5 cat populations. Inner city pet cats, urban fringe pet cats, stray cats, working cats, and feral cats. The answer for each group is different. A farm cat intended to catch mice can't work inside. Inner city pet cats interact with other species in a very different way to urban fringe cats. However there is no doubt indoor cats incur less physical harm than outdoor cats.

And cats can be perfectly happy indoors. However cats are a predator, and whilst they don't need to kill things they do need the mental challenge of hunting to decrease the risk of anxiety and boredom issues. So let's look at some practical tips to keep indoor cats entertained.

Remember that cats are naturally solitary (so they like to hide and feel safe), live in trees (so like to be elevated), and on average catch 12 mice a day: so spend a great deal of time stalking, watching, and hunting prey.

If we can re-create some of these activities cats are very happy and safer indoors.

The box on the right has some practical ideas on keeping cats occupied.

- Create a viewing platform, say on top of a wardrobe looking out a window (you may need stairs for older cats)
- Create multiple feeding spots so cats go looking for food.
- Use food mazes (as simple as some dry food in a box), or food scatters (throw dry food around the house)
- When you get new cardboard boxes leave them for your cat to hide in for a few days.
- Look out for automated cat toys that encourage hunting behaviours.
- Hang toys, paper or foil in a breeze so that they move unpredictably.
- Put a mirror ball near a window so that your cat can chase the reflections.
- If your watching TV try to encourage your cat to chase a laser pointer around the room.
- Make sure you have a number of scratching posts

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