Feline

study showed that acromegalic cats required over double the dosage of insulin (average 7 IU q12h) than that of the standard diabetic cat (average 3 IU q12h).

Three treatment options are available in cats, these consist of:

- Radiation therapy — most effective
- Surgical hypophysectomy
- Medical therapy.

PROGNOSIS

Survival times vary massively in these patients, some ranging from a few months to a few years. The range is affected by treatment choice and whether the cat has undergone aggressive or conservative management, with prognostic outlook still remaining unknown.

KEY LEARNING OBJECTIVES

- Learn about acromegaly and insulin resistance in cats
- Understand the pathophysiology of acromegaly
- Learn how to diagnose and nurse acromegalic cats

MULTIPLE CHOICE QUESTIONS

1. Acromegaly occurs commonly with which endocrinopathy?
(A) Cushing's disease
(B) Diabetes mellitus
(C) Diabetes insipidus
(D) Hyperaldosteronism
2. Recent studies by the RVC identified acromegaly in what percentage of diabetic patients?
(A) 5%
(B) 80%
(C) 25%
(D) 50%
3. Acromegaly is caused by an excess of which hormone?
(A) Growth hormone
(B) Insulin
(C) Glucose
(D) Thyroxine

Feline blood transfusions

Suzanne Rudd

Before transfusing a cat with whole blood it is important to check that it is absolutely indicated. Cats with chronic anaemia will often compensate remarkably well, show no clinical signs and therefore may not need a transfusion. Transfusions may not benefit cats with hypoproteinaemia and thrombocytopenia, as plasma proteins and thrombocytes do not stay in the intravascular compartment for very long. A transfusion may, however, be necessary in cats with severe anaemia that are showing associated clinical signs, especially if anaemia has developed acutely with little time for compensatory mechanisms to develop. A whole blood transfusion may also be given when clotting factors are required, for example, following rodenticide toxicity. Whole blood is often given as, although the cat may only require the plasma component of the blood, it can be difficult to separate the blood and the important clotting factors will degrade within hours. Great care must be taken to prevent volume overload.

There is not a cat blood bank available in the UK, however there is now a feline blood bank in Portugal. While this service is invaluable to larger/referral practices, it may not be a possibility for practices where blood transfusions are not frequent due to the cost, storage and time it takes for the blood to arrive. Therefore it is still

common practice to collect blood from named donors on a need-to-have basis. Blood donors need to be of correct weight, health, temperament and be of the same blood type as the recipient. It is essential that cats are blood typed before donation and transfusion, even if it is their first transfusion, as they have naturally occurring antibodies against the other blood type. In extreme cases where blood of the cat's type hasn't been available, dog blood has been given (xenotransfusion). While potentially useful and lifesaving, the chances of a transfusion reaction or red cell destruction are high and so this is only to be considered in an emergency where no other options are available. How much blood to give and how to collect blood to be transfused will be discussed in detail in the lecture.

The transfusion should be started at a rate of 0.25 ml/kg/h for the first 30 minutes whilst continuously monitoring for signs of transfusion reaction. Temperature, pulse, mucous membranes and respiration should be recorded every 5 minutes for the first 30 minutes, reducing to every 10 minutes for the following 30 minutes and then every 15 minutes for the remainder of the transfusion. If no problems are encountered then the rate can be increased to 0.5 ml/kg/h for a further 30 minutes, and then continuing at whatever rate is required, completing the transfusion in less than 4 hours.

KEY LEARNING OBJECTIVES

- To know when a cat needs a blood transfusion
- To understand why cats need to be blood typed
- To give a feline blood transfusion safely

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MULTIPLE CHOICE QUESTIONS

1. In your practice you have 1 unit of feline blood. Which of the following cats would you give the whole blood transfusion to?
 - (A) A 19-year-old cat with chronic kidney disease, and a packed cell volume (PCV) of 20% showing no clinical signs
 - (B) A cat with hypoproteinaemia
 - (C) A 5-year-old cat that has been attacked by a dog and has a PCV of 12% following acute haemorrhage and is decompensating
 - (D) A cat with thrombocytopenia

2. Which of the following statements is TRUE?
 - (A) A cat only needs to be blood typed on its second transfusion
 - (B) A cat should be blood typed on its first transfusion
 - (C) A cat only needs to be blood typed if receiving dog blood
 - (D) A cat never needs to be blood typed
3. Before donating, what should the donor's PCV be?

(A) $\geq 25\%$	(C) $\geq 35\%$
(B) $\geq 30\%$	(D) $\geq 40\%$

Keeping the hospitalized cat happy

Suzanne Rudd

Cats have evolved from the African wild cat. African wild cats are a solitary species living in the desert, therefore they do not socialize and are not used to confrontation. In the event of a threatening situation a cat would choose to run away (flight response to stress) rather than confront the threat (fight response). However, if the cat feels at risk or there is nowhere to escape, the cat will resort to aggression in defence. This behaviour exists in the domestic cat of today and is the most common cause of aggression in the veterinary practice. By the time the cat reaches your veterinary practice they will already be in a state of high anxiety, stress and possibly fear. Because the cat has no escape and is in a very vulnerable situation, a cat may resort to fear aggression out of pure terror and defence if it feels it has no other option. Therefore cats that are showing aggression are not 'evil', 'nasty', 'angry', etc. they are TERRIFIED! A nurse that can recognize and empathize with this will have the right attitude and can take steps to try and reduce the cat's fear. However reducing fear in a cat who is showing signs of fear aggression is a lot more difficult and will take much longer (potentially days/weeks/months) than reducing fear in a cat less terrified, so the aim should be to make your practice as cat friendly as possible in every way, from the environment to the way the cat is handled to try and reduce aggressive behaviour and ultimately make feline nursing much easier.

It is more difficult to interpret cats' behaviour when the signs of stress are low. They do not use the same facial expressions as dogs, so often anxiety, stress and fear are not recognized until the cat is very fearful. Becoming familiar with cat behaviour is invaluable when working with cats to ensure anxiety is reduced and does not escalate into fear.

Every aspect of the veterinary practice should be considered when thinking of how to reduce the cat's stress. The key elements to consider for each area are:

- Reducing noise
- Reducing 'foreign' smells, increasing familiar smells

- Reducing the cat seeing other animals, especially cats and dogs
- Providing a calm environment
- Allowing cats to use their flight response
- Allowing extra time.

All of these aspects will be discussed in the lecture along with low-stress handling techniques.

KEY LEARNING OBJECTIVES

- To recognize the importance of low-stress techniques in practice
- To evaluate how to make your practice more cat friendly
- To recognize anxiety, stress, fear and frustration in cats

MULTIPLE CHOICE QUESTIONS

1. What is the purpose making your practice cat friendly?
 - (A) To reduce fear in cats
 - (B) To reduce injury to staff
 - (C) To show cat owners you care
 - (D) All of the above
2. Which of the following is NOT a method of allowing the cat to use its flight response?
 - (A) Giving the cat food
 - (B) Giving the cat somewhere to hide
 - (C) Providing shelving in the hospital kennel
 - (D) Giving the cat a larger kennel
3. Which of the following statements is FALSE?
 - (A) Cats may benefit from being given butorphanol or gabapentin to reduce their anxiety
 - (B) It is best always hold on to the cat by whatever means and for however long to get the blood sample taken
 - (C) Cats can be held effectively without having to scruff them
 - (D) Local anaesthetic cream should be allowed to work for 30–40 minutes before venepuncture is tried

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