

NATIONWIDE LABORATORIES SUMMER NEWSLETTER

EXPERTISE YOU CAN TRUST, SUPPORT YOU CAN FEEL

IN THE LAB

Scratching the surface: a diagnostic approach to skin disease in dogs and cats

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Diagnostic approaches to gastrointestinal disease in cats and dogs

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Diagnostic dilemmas in rabbits and guinea pigs

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A clean bill of health: the role of environmental monitoring in veterinary practice

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Maximising diagnostic potential: a guide to urinalysis and urine cytology in companion animals

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Disease, diagnostics and the care of senior pets

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NationWide Specialist Laboratories Handbook

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Message from David Charvill

Dear friends,

At NationWide Laboratories, we believe diagnostics is more than a service; it's a shared responsibility. Every day, veterinary professionals across the UK and beyond trust us to deliver timely, accurate, and relevant results. That trust is something we value deeply.

We see ourselves as an extension of your team, not just providing results, but supporting the decisions that follow. We understand how much is riding on every sample, and we're here to help you navigate those moments with clarity, care and confidence. This newsletter is one of the ways we stay connected, sharing case studies, clinical topics, and educational resources designed to support your work in practice.

As part of the NVS Group, we strengthen our laboratory offering with access to in-clinic diagnostics, integrated practice management software, and wholesale solutions all built to support your clinical workflow and patient care. We're proud to support the vital work you do, and we're here to stand alongside you, every step of the way.

David Charvill,
Director of Laboratory Services



Nu.Q®: FREE Online CPD Training Tailored for Your Practice

We're offering FREE online CPD training on the Nu.Q® Vet Cancer Test via MS Teams, tailored to your practice. To book, contact Catriona Bailey at cbailey@nwlabs.co.uk. CE certificates from Volition Veterinary will be provided to all attendees.

EARLY CANCER DETECTION IN DOGS – A VITAL STEP FORWARD

Cancer remains one of the leading causes of death in dogs, yet early detection continues to be a challenge. NationWide Laboratories is proud to offer the **Nu.Q® Vet Cancer Test** in the UK, developed by Volition Veterinary. This simple and cost-effective blood test supports early cancer detection, helping vets improve patient outcomes.

HOW THE NU.Q® VET CANCER TEST WORKS

The test measures nucleosome concentrations in the bloodstream, indicating the potential presence of cancer. Studies have shown its effectiveness in detecting common cancers, such as lymphoma and hemangiosarcoma. By incorporating this test into routine wellness checks, vets can enhance early cancer screening and identify at-risk dogs before symptoms develop.

INCORPORATING NU.Q® VET CANCER TEST INTO YOUR PRACTICE

Many veterinary practices across the UK are already integrating the **Nu.Q® Vet Cancer Test** into their screening protocols. The test requires only a simple blood draw and can be used for both healthy dogs and those suspected of having cancer. It is particularly beneficial for senior dogs and breeds prone to cancer, as early detection can lead to better treatment options and improved quality of life.

EDUCATING PET OWNERS

Educating clients about the benefits of early cancer screening is key to successful implementation. Practices that have adopted the **Nu.Q® Vet Cancer Test** emphasise the importance of discussing screening recommendations during routine check-ups.

UNDERSTANDING AND INTERPRETING RESULTS

The test results are easy to interpret, with risk categories guiding next steps. Dogs with elevated nucleosome levels may require further diagnostics, while those in cautionary zones may benefit from closer monitoring. Running the test in healthy dogs helps establish a baseline for accurate assessment.

SUPPORTING VET PROFESSIONALS IN CANCER SCREENING

NationWide Laboratories supports vets in advancing canine cancer detection. The **Nu.Q® Vet Cancer Test** enhances routine diagnostics, enabling proactive care and better outcomes. That's why we've partnered with Volition Veterinary to provide personalised training, helping you maximise its benefits. Together, we can make a difference.




For more information on Nu.Q® Vet Cancer Test visit nwlabs.co.uk/nu-q-vet-cancer-screening-test

NATIONWIDE LABORATORIES NOW OFFERS NU.Q® VET CANCER SCREENING TEST IN THE UK

It is a simple, affordable, easy to use blood test which can be used as part of a wellness check for older dogs as well as younger dogs with an increased risk of developing cancer in their lifetimes, such as those with a familial history and certain breeds. By measuring and analysing nucleosomes in the DNA, the Nu.Q® Vet Cancer Test can identify patients who may have cancer. This must be confirmed by follow up procedures, for example, a biopsy or a scan. Alongside other routine blood work and imaging, this test may help find cancer at an early stage, before symptoms appear, allowing for a better chance at effective treatment.

To enquire about this service/ subscribe to it please email cls.info@nwlabs.co.uk

USEFUL VIDEO LINKS

[UNDERSTANDING
NU.Q EARLY
DETECTION](#) 

[UTILISING NU.Q IN
PRACTICE](#) 

[INTERPRETING
NU.Q RESULTS](#) 

REFERENCES

Wilson-Robles, H.M., Bygott, T., Kelly, T.K. et al. Evaluation of plasma nucleosome concentrations in dogs with a variety of common cancers and in healthy dogs. BMC Vet Res 18, 329 (2022). [Read the article.](#)

Wilson-Robles, H., Miller, T., Jarvis, J. et al. Characterizing circulating nucleosomes in the plasma of dogs with hemangiosarcoma. BMC Vet Res 17, 231 (2021). [Read the article.](#)

Dolan, C., Miller, T., Jill, J. et al. Characterizing circulating nucleosomes in the plasma of dogs with lymphoma. BMC Vet Res 17, 276 (2021). [Read the article.](#)

FREE on-demand webinar: Blood proteins and their use in equine biochemistry profiles

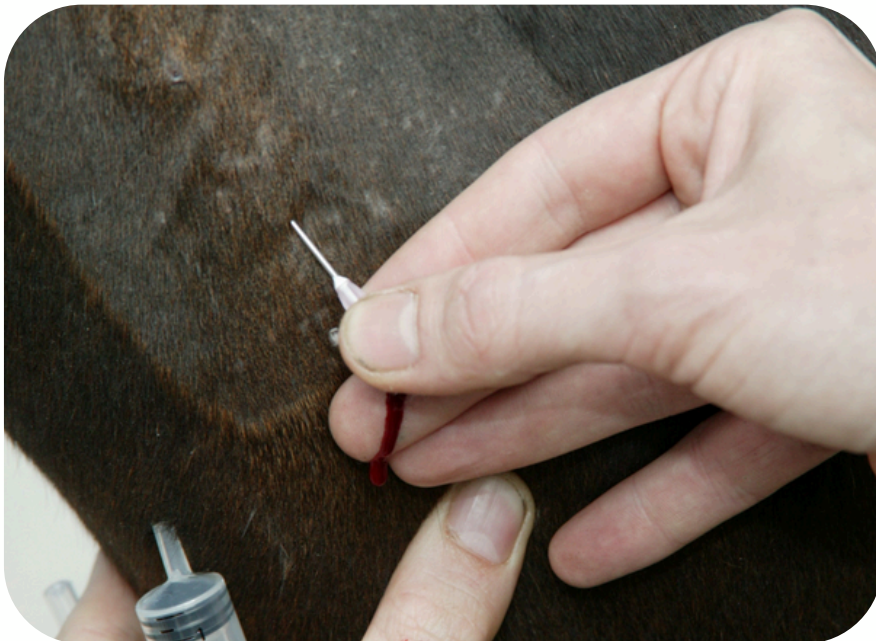
Description

This lecture, presented by Dr. Stacey A. Newton, explores the critical role of blood proteins in equine biochemistry profiles, emphasising their diagnostic and monitoring applications. It highlights proteins' biological functions and their use in evaluating health and disease in horses.

Key topics include acute phase proteins (APPs), their response to inflammation, and the interpretation of albumin and globulin levels in clinical contexts. Special attention is given to the diagnostic utility of APPs like serum amyloid A and fibrinogen in detecting and monitoring inflammatory and neoplastic conditions. The lecture also delves into advanced diagnostic techniques like serum protein electrophoresis to assess protein fractions and identify disease processes. Practical insights into the clinical significance of hyperproteinemia, hypoalbuminemia, and hyperglobulinemia enrich this comprehensive presentation, making it indispensable for equine veterinary practitioners.

Learning Objectives

- **Integrate into Practice:** Incorporate protein analysis into routine diagnostics to enhance the management of equine health and disease
- **Apply Advanced Techniques:** Employ serum protein electrophoresis for detailed examination of globulin fractions and disease diagnostics
- **Diagnose Using APPs:** Utilise acute phase proteins such as serum amyloid A and fibrinogen to identify and monitor inflammation and tissue damage
- **Interpret Biochemistry Profiles:** Analyse albumin, globulin, and APP levels to diagnose inflammation, neoplasia, and other disorders
- **Understand Blood Proteins:** Recognise the fundamental functions of blood proteins and their role in equine physiology and pathology



THE WEBINAR VET

Click on the arrow to watch the webinar FREE



EQUINE SERVICE RE-LAUNCH

NationWide Laboratories has re-launched its equine services, offering faster turnaround times, improved value, and streamlined processes to meet the needs of your practice. Our enhanced range of tests and services is available at competitive prices, ensuring timely care for your equine patients. With a team of experienced scientists and pathologists, we provide accurate, high-quality results backed by stringent quality control. Our courier service and dedicated customer support ensure you are supported every step of the way. Learn more about our equine services at nwlabs.co.uk/equine-diagnostics or contact us at info@nwlabs.co.uk

ASK YOUR LABORATORY EXPERT

Dr. Stacey A. Newton is the Head Veterinary Clinical Pathologist at Nationwide Laboratories and a leading equine expert. She graduated from the University of Bristol in 1993 and completed an internal



medicine residency at the University of Liverpool, earning her Certificate in Equine Medicine. Stacey holds a PhD in equine neurology, and achieved Diplomate status with the Royal College of Pathologists in 2008 and Fellowship in 2010. With numerous publications and presentations at events like the BEVA Congress, you can be assured that your cases are in safe and capable hands.

Ask your laboratory expert: biochemistry results in equine practice

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Ask your laboratory expert: haematology results in equine practice

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Diagnosing equine metabolic syndrome

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Diagnosing equine pituitary pars intermedia dysfunction

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Evaluating a prostatic abnormality in a Cocker Spaniel



Author: Alina Bodnariu DVM MSc PhD FRCPath MRCVS

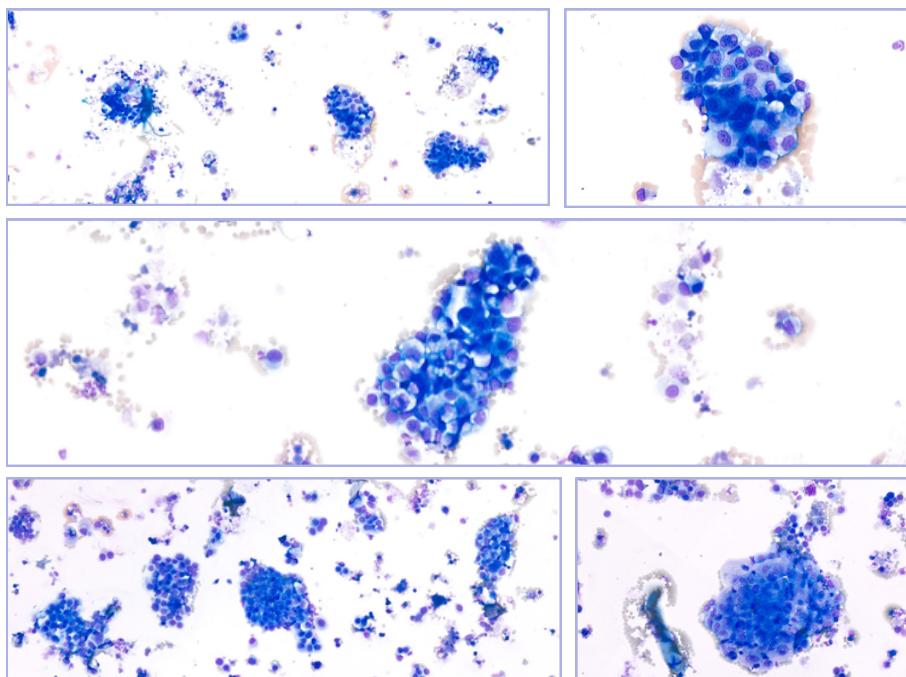
Case presentation

A 10-year-old Cocker Spaniel presented with a history of intermittent haematuria of five days duration. Rectal examination revealed an irregular, painful prostate gland. Ultrasound examination revealed a cystic and fibrotic prostate gland. A prostatic wash was performed, and the sample was submitted to NationWide Laboratories for evaluation.

Cytological and microbiology findings

The prostatic wash sample identified an atypical epithelial cell population with associated moderate mixed inflammation (neutrophilic and macrophagic). Moderate numbers of prostatic epithelial cell clusters were harvested. The cells had moderate to high N:C ratio, round to oval nuclei with clumped chromatin, small nucleoli and small to moderate amounts of light basophilic cytoplasm. Occasional binucleated and trinucleated cells were noted. There was moderate to marked anisocytosis and anisokaryosis. Moderate numbers of neutrophils and macrophages were admixed. Microorganisms were not found.

Culture of the prostatic wash was negative (no bacterial, yeast or fungal growth).



SAME DAY PTH

NationWide Specialist Laboratories is offering a SAME DAY service for the analysis of canine, feline and equine parathyroid hormone (PTH). Parathyroid hormone-related protein (or PTHrP) is assayed once a week on Wednesday with results available on Thursday. If you want our RAPID PTH service as well as PTHrP, please submit 2 separate frozen EDTA Plasma samples. PTHrP will continue to be analysed once a week. **For more details, please contact us at 01223 493400.**

GERIATRIC PET PROFILES

Comprehensive testing is recommended for senior dogs and cats, due to the higher risk of underlying disease. There are four main categories of wellness testing for senior pets: **complete blood count, biochemistry profile, urinalysis, and thyroid hormone testing.** Our canine and feline geriatric profiles include a chemistry panel to **evaluate kidney and liver function, antibody and protein levels, blood sugar, cholesterol, electrolytes and more.** For more information, contact us at info@nwlabs.co.uk.

HYDROTHERAPY POOL WATER TESTING

We all know that hydrotherapy in conjunction with veterinary treatment can assist in improving the rate of recovery and healing of animals after injury or surgery. At NationWide Laboratories we can assist you in demonstrating to your clients that your facility meets the guidelines for water safety and quality through our hydro pool testing service, which meets the requirements of hydrotherapy associations such as CHA and NARCH.

We will provide you with the sample bottle, guidance on how to take the sample and prepaid postage to get the sample to us. You will receive a report of printed enumerated results for total viable count at 37 degrees itemising *total coliforms*, *E. coli*, *Pseudomonas aeruginosa* and guidance for interpretation. **Simply call 01253 899215 or email info@nwlabs.co.uk for more information.**

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Cytological interpretation

The presence of atypical prostatic epithelial cells raised suspicion for epithelial neoplasia, however prostatic epithelial hyperplasia secondary to inflammation could not be ruled out entirely.

Ancillary tests

A BRAF mutation test was advised to investigate further for the possibility of prostatic carcinoma. This test was performed on the cytology slides and the V595E mutation was detected in the BRAF gene.

Discussion

The findings were considered consistent with a malignant epithelial neoplasia involving the prostate gland: urothelial carcinoma (transitional cell carcinoma) or prostatic carcinoma. Further classification of the neoplasia would require surgical biopsy of the prostate gland and histopathology examination, however the prostatic wash cytology examination and the BRAF mutation test were non-invasive tests that provided a diagnosis of malignancy in this case.

Crenosoma striatum larvae in a European hedgehog (*Erinaceus europaeus*)



Image credit: Alan Garnett,
Jana Leontescu DVM MRCVS

At NationWide Laboratories, we have recently received a sample from a European hedgehog (*Erinaceus europaeus*) showing signs of respiratory disease.

Using the Baermann technique, we identified the presence of *Crenosoma striatum*, a parasitic lungworm that infects the bronchi and bronchioles, often leading to coughing, wheezing, and breathing difficulties.

This parasite is typically transmitted when hedgehogs consume infected slugs or snails. Once inside the host, the larvae migrate to the lungs, where they mature and cause inflammation.

In cases like this, antiparasitic treatment is often considered by veterinary professionals to help manage the infection and alleviate clinical signs.

This case highlights the importance of early recognition and accurate diagnosis of parasitic infections in wildlife.

At NationWide Laboratories, we're proud to provide the diagnostic tools and expertise that help vets and wildlife carers protect the health of our native species.

ONLINE CUSTOMER PORTAL: IT'S LIKE 1, 2, 3 - JUST AS EASY AS CAN BE

Our online customer portal is designed to streamline the sample submission, tracking and result reporting process. It perfectly aligns with our commitment to delivering a greener pawprint by offering you this alternative to a paper-based system.

This platform is set to give you another additional way to interact with us, offering a faster and more convenient means of managing sample submissions, tracking their progress and obtaining results. It is a software interface that gives you complete visibility into your interactions with our laboratories. To start using the platform please contact us at CBailey@nwlabs.co.uk

HOW CLEAN IS YOUR PRACTICE?

We offer you a microbiological screening programme to screen your facilities and equipment. Swabs are supplied with simple instructions and a postage paid envelope for return to our laboratory for testing. We test for aerobic and anaerobic cultures as well as specific cultures for yeast and fungi. This comprehensive testing includes (but is not limited to) cultures for the following major groups of organisms: *Enterobacteriaceae*, *Enterococci*/*Streptococci*, *Pseudomonadaceae*, *Staphylococci* (Meticillin resistant/sensitive) as well as spore forming bacteria such as *Bacillus* and *Clostridium* spp.

For more information, contact us at info@nwlabs.co.uk.

SAME DAY SDMA

NationWide Specialist Laboratories offers SDMA assay with results available the same day. This assay has been validated against Liquid Chromatography – Mass Spectrometry method which is the Gold standard. This is an immuno-turbidimetric assay and has been validated for dogs, cats and horses. Li-hep plasma or serum are suitable samples for this assay.

For more details, please contact us at 01223 493400.

Case of a trichoblastoma in a 7-year-old Labrador

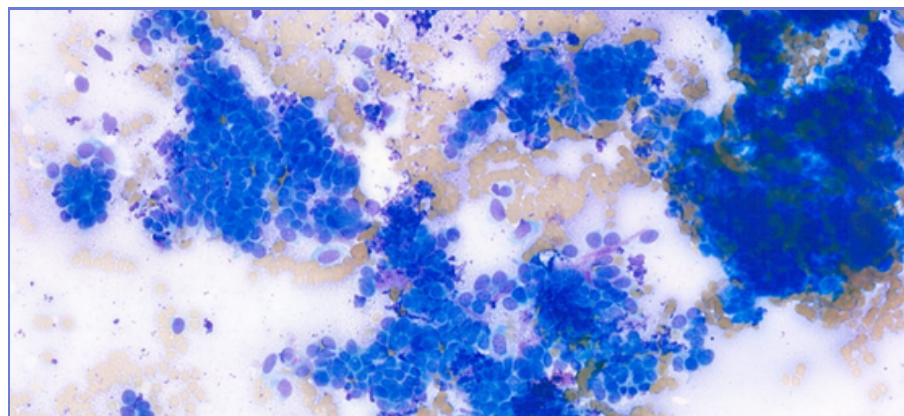
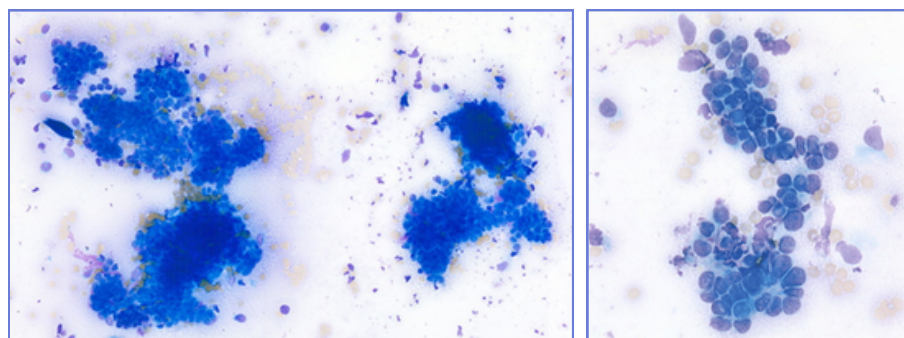


Author: Stacey Newton BVSc FRCPath CertEM (Int Med) PhD MRCVS

A 7-year-old male neutered Labrador presented with a 2 cm raised firm mass present at the base of the right ear. It appeared not to be attached underneath and was quite mobile. Fine-needle aspirates for cytology were performed.

Cytology

This demonstrated mainly several varying sized often compressed clusters of uniform cuboidal shaped epithelial cells. They demonstrated round to oval nuclei with indistinct or occasionally small prominent nucleoli. They had low amounts of pale basophilic cytoplasm. Some of the cells showed some palisading and occasional acinar type arrangement. There was some eosinophilic amorphous material present amongst the cells. Occasional more individual spindle to polygonal shaped cells were observed as well as a few well-differentiated squamous epithelial cells. A small amount of keratin was present.



Interpretation: Basilar epithelial neoplasm most likely trichoblastoma.

FOLLOW YOUR DREAMS

At NationWide Laboratories, we believe diagnostics is more than a process; it's a partnership. Behind every result is a team of passionate professionals working alongside vets and nurses to support animal health. To celebrate the people behind the science, we've created the Follow Your Dreams e-book: a collection of inspiring stories from 12 women at NationWide Laboratories who bring dedication, resilience, and heart to their roles.

Written by Fiona Farmer BVSc MRCVS, this collection is a tribute to the journeys, challenges, and triumphs that shape our work and our shared mission. Click on the arrow below to read or download the e-book.



NATIONWIDE SPECIALIST LABORATORIES OFFERS A SERVICE FOR THE ANALYSIS OF ERYTHROPOETIN (EPO)

EPO plays a key role in the regulation of red cell mass and erythrocyte production. EPO may be used to aid the differential diagnosis of polycythemia and non-regenerative anaemia. Raised levels of EPO occur in secondary polycythemias and renal tumours. Low/normal levels may occur in renal failure and polycythemia vera.

Sample requirement is 0.5mL separated serum. For further enquiries, please ring 01223 493400

CENTRE OF EXCELLENCE FOR HISTOPATHOLOGY

We provide diagnostic veterinary histopathology services to veterinary practitioners and universities throughout the UK and worldwide. Our interest does not stop at the point of diagnosis, and we are involved in research in veterinary medicine.

We have contributed to publications based upon both the samples that our clients send us and also in collaboration with other veterinary centres and universities.

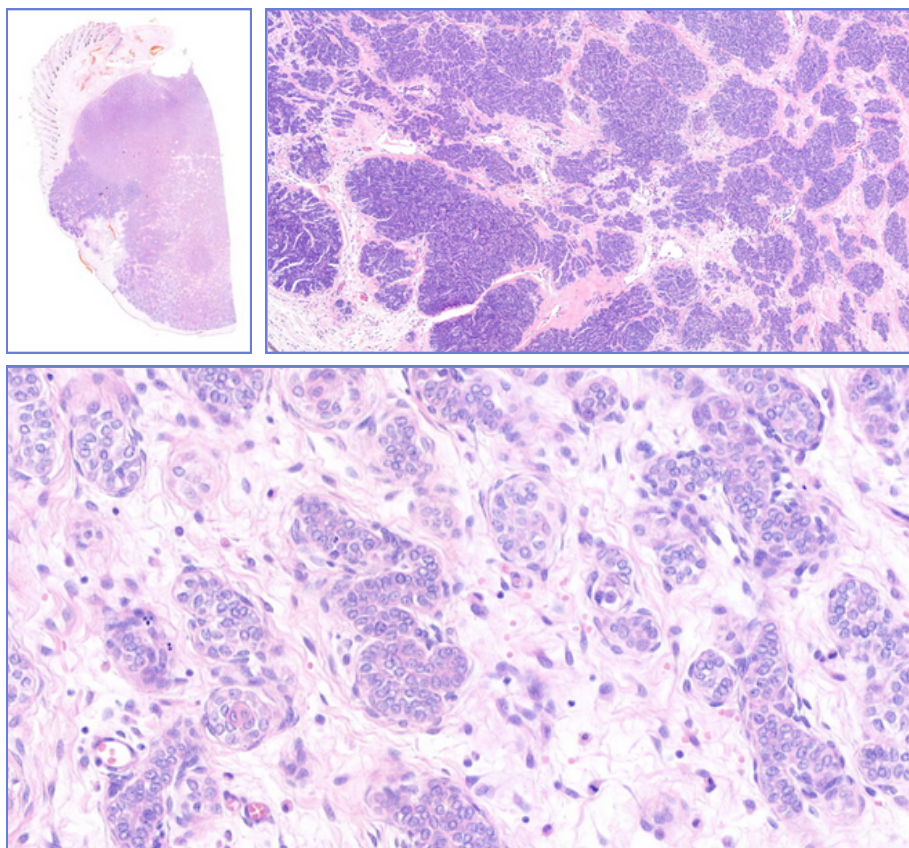
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Further investigation

Just over 3 months later the mass was excised. It was at that time 4.4 cm in diameter. The lab received a piece of skin and tissue measuring 6.5 cm with a firm raised white mass measuring 4.6 cm.

Histology

Sections were prepared showing large expansile and discrete nodular mass located below compressed haired skin. There were interconnecting tortuous cords and nests of uniform neoplastic basal epithelial cells. The cells showed palisading along the basement membrane. The cells were uniform and arranged in cords and aggregates with some fibrovascular stroma. The mass was excised with a minimal margin of 0.5 to 1 mm at the narrowest point. Rare mitotic figures were observed.



Interpretation: cutaneous trichoblastoma.

Comment

Trichoblastoma are part of a group of follicular tumours. This is a benign lesion that derives or shows differentiation to the primitive hair germ cells. This is a common tumour in dogs as well as fairly common in cats. It is most commonly seen in dogs of 4-10 years of age. Most frequent sites in the dog are head, neck and at the base of the ears. In the cat it frequently occurs on the head and the cranial half of the trunk. Grossly they appear as solitary firm and alopecic masses which are polypoid or dome-shaped in the dog. In the cat they are usually solitary and dome-shaped. There are different variants of this tumour including ribbon and medusoid, granular cell, solid or cystic, trabecular and spindle cell variant. Other differentials for these types of lesions would include sweat gland adenomas, sebaceous epitheliomas, melanocytomas when they are pigmented and granular cell tumour. This last tumour is however very rare in dogs and cats. Trichoblastomas carry a good prognosis with complete excision usually curative. The malignant form of trichoblastoma has never been described in dogs and cats but is rarely reported in people.

Click on the arrow to read more case studies in our blog



IN FOCUS: SUBMISSION FORM

To help us deliver your results as efficiently as possible, please take a moment to ensure your submission form is complete and accurate.

This includes double-checking the practice code, test code, species, and relevant history for each sample.

If the **animal is imported**, please clearly mark it on the form and note it in the history section, specifying the origin, zoonosis risks, and any travel history.

For **histology submissions**, also include the number of containers and tissues, as this ensures accurate processing.

By paying attention to these details, you help us provide you with the best possible service. If you have any questions, please get in touch with our friendly team at 01253 899215 – we will be happy to assist. Thank you!

THANK YOU FOR YOUR FEEDBACK!

At NationWide Laboratories, we're more than just a diagnostic service - we're part of your veterinary team. Every sample, every result, and every interaction is driven by our shared commitment to animal health and the people who care for them.

Your feedback is at the heart of everything we do. It helps us refine our processes, develop new solutions, and continuously improve the support we provide to practices across the UK and beyond.

Have something to share? We'd love to hear from you.

If you're already working with us, please let us know how we're doing: [click here](#).

Not a client yet? We'd still value your input: [click here](#).

Together, we're shaping the future of veterinary diagnostics. Thank you for helping us grow, improve, and better serve the veterinary community.