THE MANGA

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OFFICIAL NEWSLETTER OF THE VETERINARY ASSOCIATION OF NAMIBIA

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President's Desk

Another year flying by, it feels like you just have to grab onto every opportunity that comes along. How many of your New Year's resolutions have you kept? Which new ones are you going to make?

We are looking forward to the Congress that lies ahead. We have an incredible line up of lecturers and they are excited to share their experience. The first time in a long time that we are going to see each other at the coast for an in-person congress. It has been forever.

Looking back through the year so far, we made it easier for people to pay for VAN membership and CPD events by opening a PayToday account- If you haven't used it, TRY IT, it's so easy; We supported the HIPRA Road Show in March where we learned so much about the HIPRA products and the diseases they cover; VAN supported the Montego Pet Nutrition Webinar; We redid our website and gave it a fresh new look; We designed and produced and have available our VAN VACCINATION BOOKLETS; we had our first VAN Collegial Discussions Evening which we would really like to build more and get Namibian vets to sit around a table and discuss day to day veterinary issues we face in Namibia.

We are currently busy helping the Namibian Blood Transfusion Services to build a database of veterinarians who have high rabies antibody titers who can be called upon to donate plasma to help save rabies bite victims. We really hope this collaboration could help decrease the cost of treatment and in so doing make it more viable for people to get Rabies Immunoglobulin treatment if they have been exposed to a rabid animal. This could help and so decrease the yearly deaths by rabies in humans to ZERO, yes if you were wondering, an average of 10 human deaths occur on a yearly basis due to rabies exposure in Namibia alone, and approximately 59 000 worldwide.

Let's gather up the strength and make the last quarter of this year as full and successful as the three behind. *-Dr Theuns Laubscher, VAN President*

World Rabies Day- 28th of September 2022

The theme for this year's World Rabies Day:

It would be wonderful if you could join in this day by doing school talks, rabies vaccination campaigns or any other rabies related activities!

Please send us pictures of your events 

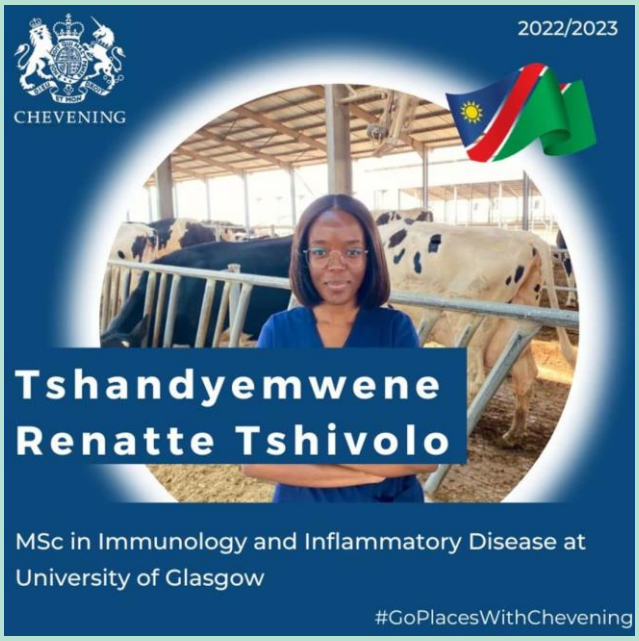
Rabies Immunoglobulin Donations

The Namibian Blood Transfusion Services are in the process of laying the groundwork for plasma donations for rabies immunoglobulins. If you would like to donate, and at the same time receive information concerning your rabies titres, please let us know.

VAN Congress 2022

17-19 November 2022 – remember to register before the 30th of September for the early bird special!

VAN MEMBER NEWS



We would like to congratulate Dr Renatte Tshivolo, state veterinarian Mariental and active VAN Member, for being awarded the highly prestigious Chevening Scholarship to study at the University of Glasgow. We wish her all the best on this new chapter in her life, and look forward to her bringing back new expertise to Namibia!

Dr Frans Joubert passed away on the 22nd of June this year.

Dr Frans served in DVS and was the state vet for Outjo, as well as upper management at Windhoek Headoffice later on. Even in his pension years he remained active in the profession.

He will be remembered by his colleagues as a true gentleman, an easy-going supervisor and a fountain of knowledge and wisdom.

May his soul rest in peace.

Guide to Handling Rabies Cases in Namibia

By Dr Andrea Klingelhoeffer

This article is CPD approved, and you will be awarded 1 CPD point and a certificate after you have completed the 10-question quiz here. The pass mark is 100%, but you will be able to repeat the quiz as many times as needed.

In honour of World Rabies Day on the 28th of September, let us refresh our memory on vaccination protocols and the procedures to follow if we are presented with a suspected rabies case.

First of all, we must always ensure that our actions are in line with the Animal Health Act, 2011 (Act 1 of 2011). In situations where things go wrong, this will be the standard that we will be held up to since rabies is a zoonosis and an OIE notifiable disease.

1. **How should we vaccinate for rabies?**

Regulation 50 of the Animal Health Act, 2011 (Act 1 of 2011) states:

50. (1) A person who owns or has custody, control, charge or care of a dog, cat or other tamed carnivore must cause such dog, cat or other tamed carnivore to be vaccinated with an approved rabies vaccine by a veterinary official or veterinarian –
(a) before the animal attains the age of seven months but not before it is three months old;
(b) within a period of 12 months after the vaccination referred to in paragraph (a); and
(c) once every year thereafter or according to the instructions of the vaccine manufacturer

The WSAVA vaccination guidelines recommend the following:

Initial Puppy/Kitten Vaccination	Initial Adult Vaccination	Revaccination Recommendation
Administer one dose at 12 weeks of age. If vaccination is performed earlier than 12 weeks of age, the puppy/kitten should be revaccinated at 12 weeks of age. In high-risk areas a second dose may be given 2–4 weeks after the first	Administer a single dose	Revaccination (booster) at **1 year of age**. Canine rabies vaccines with either a 1- or 3-year DOI are available. Timing of boosters is determined by the licensed DOI, but in some areas may be dictated by statute. (DOI: Duration of immunity)

In some areas of Namibia, it is recommended to vaccinate every year, in other situations this could be extended to every 3 years. As a veterinarian, you can use your own discretion depending on your local epidemiological situation and guidelines given by the Directorate of Veterinary Services.

2. What do I do if I am presented with a suspected rabies case?

If you are a **private veterinarian**, your actions should include the following:
- immediately notify the state veterinarian and submit a Disease Report Form
- take samples if the animal is deceased and submit to CVL
-verify any human and animal contacts and advise the pet owner/ farmer accordingly, together with the state veterinarian.

If you are the **state veterinarian**, your actions must include the following, as according to Regulation 45 of the Animal Health Act, 2011 (Act 1 of 2011):

According to the Animal Health Act 2011, (Act 1 of 2011), a "veterinary official" means a person appointed as a veterinary official under section 4 by the Minister of Agriculture (also refer to Section 3 of the Act for further clarification).

A veterinary official who suspects that an animal is infected with rabies must:
(a) isolate and securely confine the animal to prevent it from attacking human beings or other animals; or
(b) immediately kill the animal and collect appropriate samples from it;
(c) advise all in-contact persons to immediately seek medical attention; and
(d) officially advise the medical personnel attending to in-contact persons referred to in paragraph (c) of the contact with an animal suspected or confirmed of being infected with rabies, in accordance with Annexure 12.

Annexure 12

REPUBLIC OF NAMIBIA
MINISTRY OF AGRICULTURE, WATER AND FORESTRY

NOTIFICATION TO MEDICAL PERSONNEL OF CONTACT WITH A SUSPECTED OR CONFIRMED RABID ANIMAL
(In terms of Animal Health Regulation 45(d) under the Animal Health Act, 2011)

Notification is hereby given that the following person(s) has/have been in contact with a suspected/ confirmed rabid animal and **MUST** receive appropriate medical attention:

Name of the person	Date of exposure	Farm/village/town/suburb	Identification Number/ Passport Number/ Date Of Birth

Name of the issuing State Veterinarian: _____

Signature: _____

Date: _____

Official stamp

3. What happens to in-contact animals?

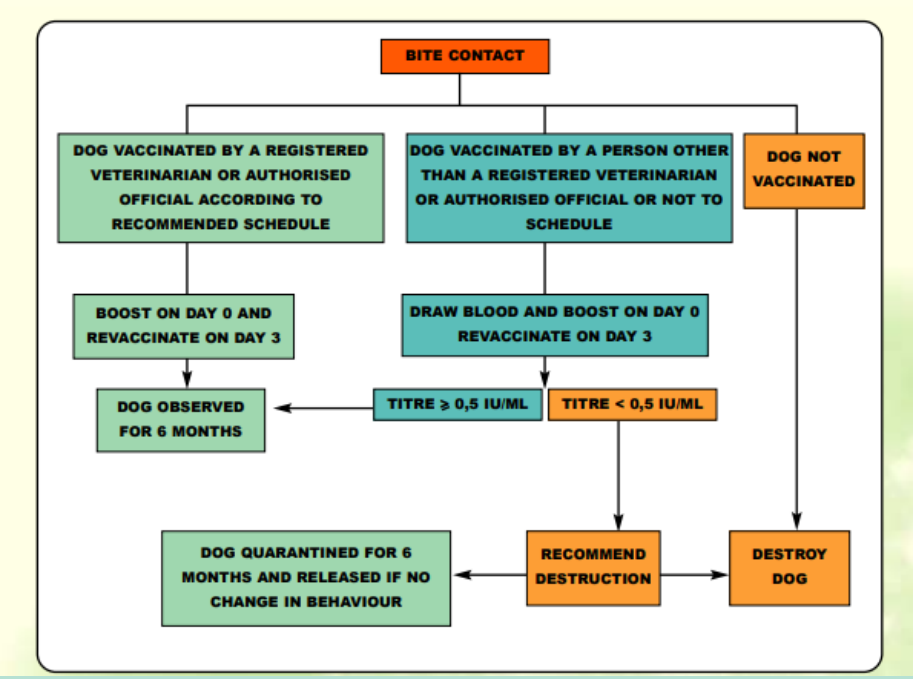
According to Regulation 48 of the Animal Health Act, 2011 (Act 1 of 2011):

*(1) An owner whose animal has been in contact with an animal **infected** with rabies must destroy the animal unless a veterinary official is satisfied that effective isolation and confinement of the animal is practical.*
*(2) If a veterinary official is satisfied that effective isolation and confinement of an animal referred to in subregulation (1) is practical, the veterinary official may authorise the isolation and confinement of the animal for a **minimum of 30 days**, at a place and subject to conditions as the veterinary official may impose.*
(3) The veterinary official must destroy the in-contact animal if effective isolation and confinement is not practical.

To give further guidance in the case of dogs and cats, the following is recommended by the handbook "Rabies: Guide for the Medical, Veterinary and Allied Professions" from the South African Rabies Advisory Group:

"The Directorate Veterinary Services may hold **suspected** cats and dogs in quarantine for observation by a veterinarian for a period of **at least 10 days**. Animals displaying signs of illness during the period of observation are euthanised for laboratory examination. A vaccination history may be of some assistance during the assessment but greater reliance should be placed on the animal's clinical picture."

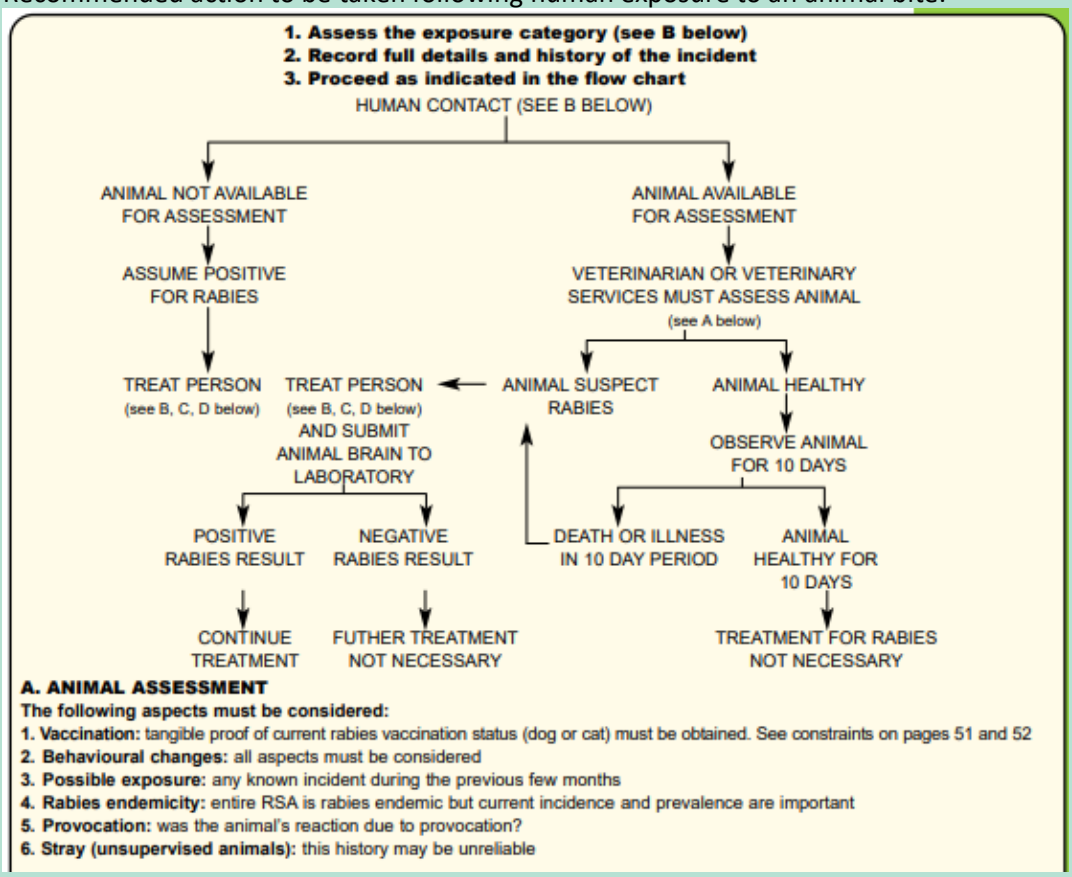
Recommended action to be taken following bite contact with a dog:



"Rabies: Guide for the Medical, Veterinary and Allied Professions", Department of Agriculture, Department of Health, RSA, 2003, p.52

4) How should human exposures be handled?

Since rabies is an occupational risk for veterinarians and para-veterinarians, it is important to stay up to date with the latest recommendations.
Recommended action to be taken following human exposure to an animal bite:



"Rabies: Guide for the Medical, Veterinary and Allied Professions", Department of Agriculture, Department of Health, RSA, 2003, p.41

MANAGEMENT OF PATIENT

General wound management is critical in all patients:

- Flush well with soap and water for at least 5 - 10 minutes, then clean with chlorhexidine solution (0.05%). Disinfect with iodine solution/ointment.
- Avoid or delay suturing (where possible) and use of local anesthetic agents (may potentially spread the virus locally).
- Provide antibiotics (e.g. amoxicillin clavulanate) and/or tetanus vaccination as required.

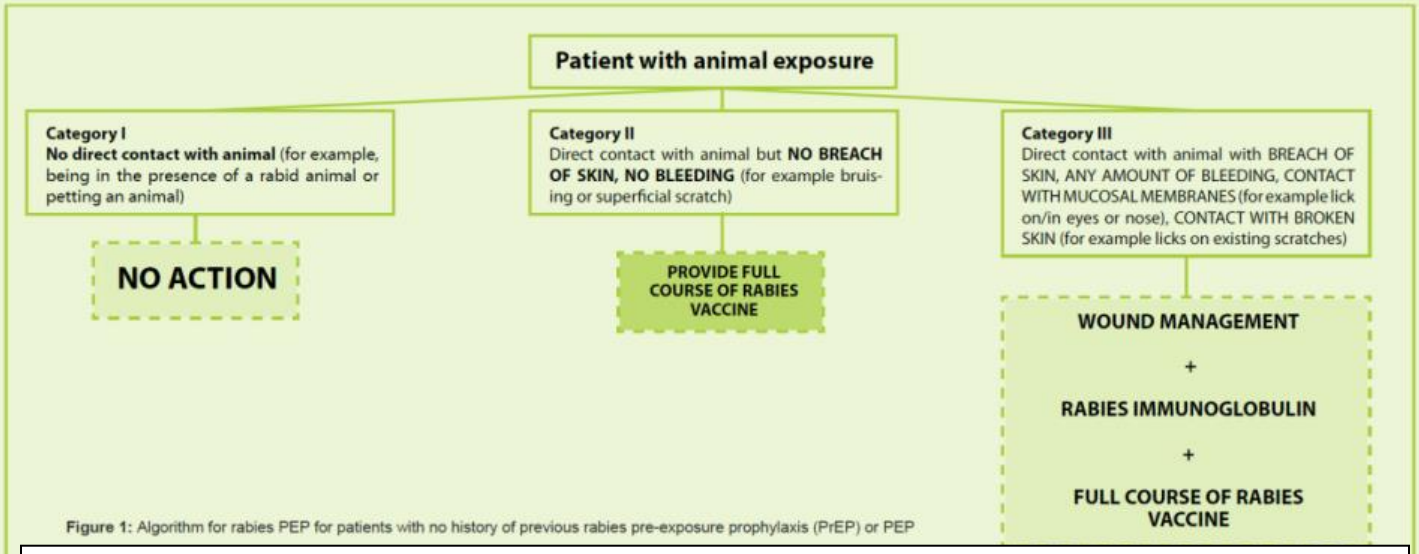
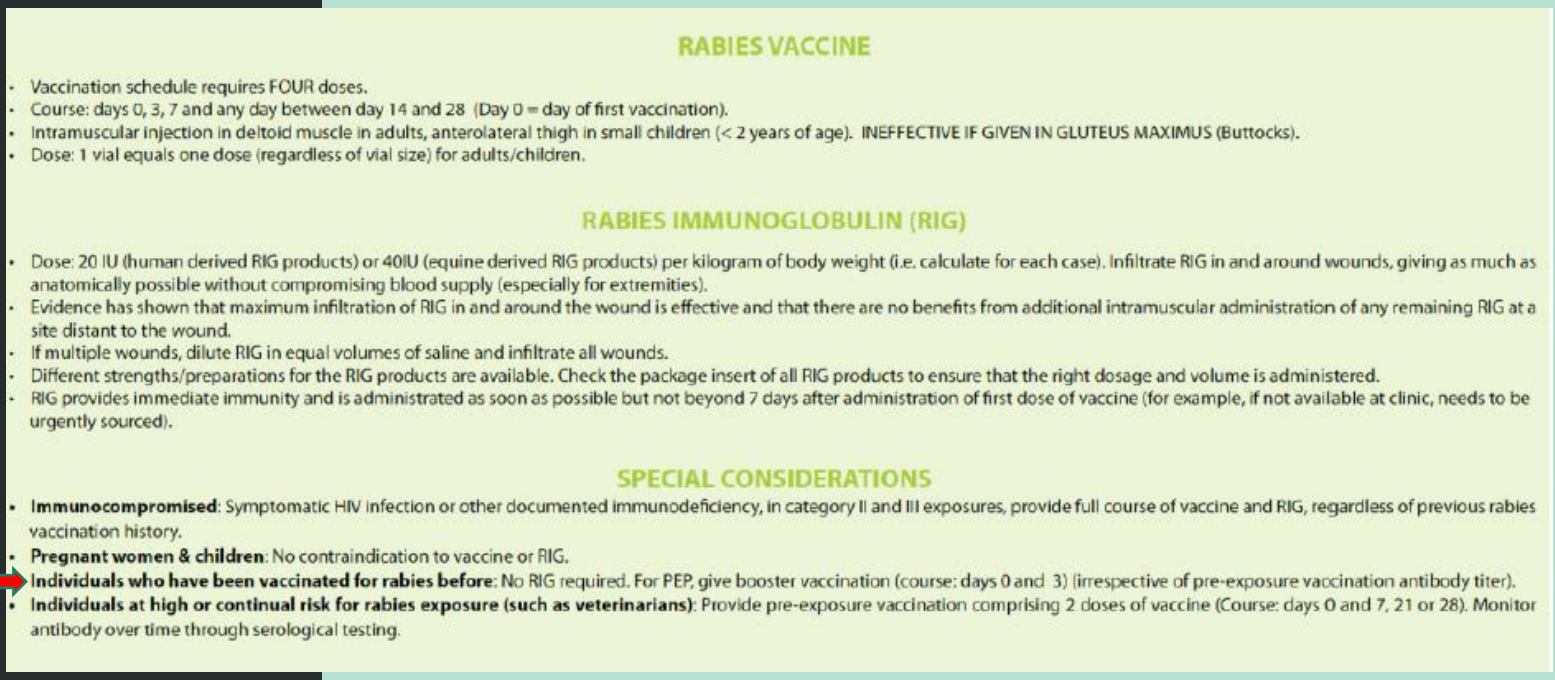


Figure 1: Algorithm for rabies PEP for patients with no history of previous rabies pre-exposure prophylaxis (PrEP) or PEP

"National Guidelines for the Prevention of Rabies in Humans, South Africa", National Department of Health, National Institute for Communicable Diseases, September 2021, p.30

Please take note in the figure below, that post-exposure vaccinations for previously vaccinated persons involves two vaccinations: one on day 0, and another on day 3. Both of these should be into the deltoid muscle.



RABIES VACCINE

- Vaccination schedule requires FOUR doses.
- Course: days 0, 3, 7 and any day between day 14 and 28 (Day 0 = day of first vaccination).
- Intramuscular injection in deltoid muscle in adults, anterolateral thigh in small children (< 2 years of age). INEFFECTIVE IF GIVEN IN GLUTEUS MAXIMUS (Buttocks).
- Dose: 1 vial equals one dose (regardless of vial size) for adults/children.

RABIES IMMUNOGLOBULIN (RIG)

- Dose: 20 IU (human derived RIG products) or 40IU (equine derived RIG products) per kilogram of body weight (i.e. calculate for each case). Infiltrate RIG in and around wounds, giving as much as anatomically possible without compromising blood supply (especially for extremities).
- Evidence has shown that maximum infiltration of RIG in and around the wound is effective and that there are no benefits from additional intramuscular administration of any remaining RIG at a site distant to the wound.
- If multiple wounds, dilute RIG in equal volumes of saline and infiltrate all wounds.
- Different strengths/preparations for the RIG products are available. Check the package insert of all RIG products to ensure that the right dosage and volume is administered.
- RIG provides immediate immunity and is administrated as soon as possible but not beyond 7 days after administration of first dose of vaccine (for example, if not available at clinic, needs to be urgently sourced).

SPECIAL CONSIDERATIONS

- **Immunocompromised**: Symptomatic HIV infection or other documented immunodeficiency, in category II and III exposures, provide full course of vaccine and RIG, regardless of previous rabies vaccination history.
- **Pregnant women & children**: No contraindication to vaccine or RIG.
- **Individuals who have been vaccinated for rabies before**: No RIG required. For PEP, give booster vaccination (course: days 0 and 3) (irrespective of pre-exposure vaccination antibody titer).
- **Individuals at high or continual risk for rabies exposure (such as veterinarians)**: Provide pre-exposure vaccination comprising 2 doses of vaccine (Course: days 0 and 7, 21 or 28). Monitor antibody over time through serological testing.

"National Guidelines for the Prevention of Rabies in Humans, South Africa", National Department of Health, National Institute for Communicable Diseases, September 2021, p.30

In conclusion, Namibia's rabies situation remains an important issue for all veterinarians, para-veterinarians, livestock keepers and pet owners to remain aware of. As custodians of animal health (which has implications on public health), eradicating rabies through vaccination, adequate measures of control and public awareness campaigns should be something that private and state veterinarians, as well as para-veterinarians, can achieve by working together.

References:

1. Animal Health Act 2011, Windhoek: Republic of Namibia, Office of the Prime Minister, Government Gazette 20 April 2011

2. Animal Health Regulations: Animal Health Act, 2011, Windhoek: Republic of Namibia, Ministry of Agriculture, Water & Forestry, Government Gazette 28 December 2018

3. Bishop, G.C., Durrheim D.N., Kloeck, P. E., Godlonton, J. D., Bingham, J., Speare, R., Rabies Advisory Group, *Rabies: Guide for the Medical, Veterinary and Allied Professions,* 2003, Government Printer, Pretoria, pp. 41, 52.

4. Day, M.J, Horzinek, M.C., Schultz, R.D., Squires, R.A., 2016. WSAVA Guidelines for the vaccination of dogs and cats. *Journal of Small Animal Practice*, 57(1), pp.17-21.

5. National Department of Health, 2021. *National Guidelines for the Prevention of Rabies in Humans, South Africa*. Pretoria: National Department of Health National Institute for Communicable Diseases, p.30.

CASE DISCUSSION

Ichthyosis in Chianina Cattle

by Dr Theuns Laubscher

History

Two calves were born at the end of July from a farmer with Chianina cattle. Cows were inseminated by imported semen, and the heifers that were bred from those cows were re-inseminated with the semen from the same bull. 8 calves were born, of which 2 of them showed the signs as seen in the pictures.

Clinical Signs

Signs of hyperkeratosis and significant tautness of the skin can be seen, with deep reddened fissures. Ectropion was also present and hair on the face and head was minimal.

Diagnosis

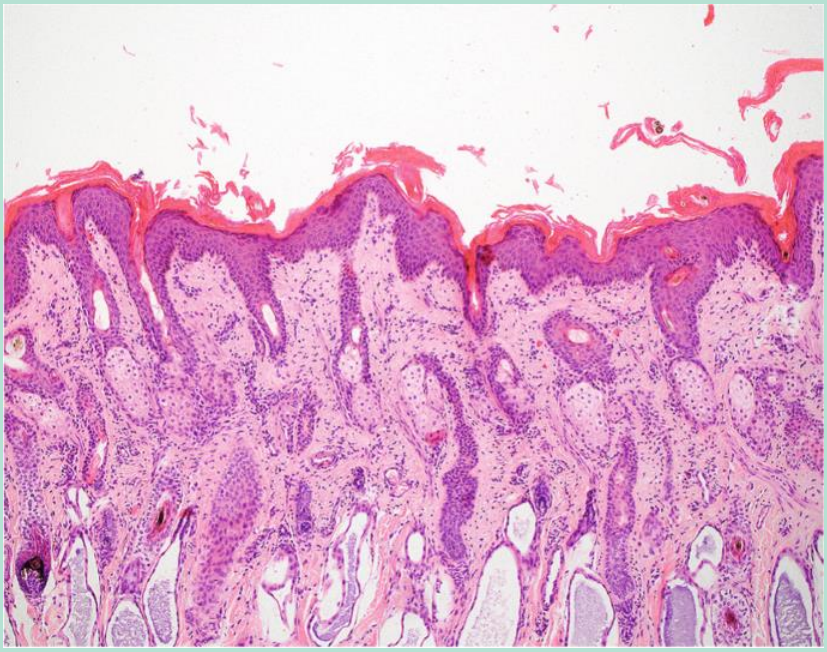
A tentative diagnosis was made based on clinical signs as **Ichthyosis fetalis** (Baker and Ward 1985, Yager and Scott 1993, Raoofi *et al* 2001).

Discussion

Two inherited forms have been identified in cattle. Ichthyosis fetalis and Ichthyosis congenita. Fetalis is the extreme form and is normally fatal. Affected calves are aborted or survive only a few days. Alopecic skin is usually covered with large, scale-like areas, separated by grooves or clefts where normal skin folds are reproduced. Unusually small ears and ectropion, as well as eversion of other mucocutaneous junctions like the lips can be seen. Ichthyosis fetalis has been reported in Norwegian red poll, Friesian and Brown Swiss calves. The other form, Ichthyosis congenita has been reported in Jersey, Holstein- Friesian, Chianina and Pinzgauer breeds (Baker and Ward

1985,Yager and Scott 1993, Raoofi and others 2001). This is less severe and cattle that are affected usually live longer.

Therefore, if this can be confirmed as Ichthyosis fetalis it would be the first reported in Chianina. The lesions of congenita are similar to those of ichthyosis fetalis, but are less severe and localise particularly to the abdomen, inguinal region, muzzle and joints. Alopecia is restricted to a few areas and may develop later.
In other animals, cases of congenital ichthyosis have been reported in cattle, dogs, pigs, chickens, mice (Jones and others 1997), llamas (Belknap and Dustan 1990) and kudu (Chittick and others 2002); however, inheritance of the condition has been confirmed only in chickens (Renden and Abbott 1980), cattle (Scott 1988) and mice (Shultz and others 2003).



Histological investigation of the skin of a 2-week-old Scottish Highland calf with congenital ichthyosis and alopecia. Note the compact to laminated orthokeratotic hyperkeratosis extending into the follicular infundibuli and the mild to moderate hyperplasia of the epidermis. Haematoxylin and eosin stain, x100 (Häfliger, I.M., Koch, C.T., Michel, A. *et al. DSP* missense variant in a Scottish Highland calf with congenital ichthyosis, alopecia, acantholysis of the tongue and corneal defects. *BMC Vet Res* 18, 20 (2022). **https://doi.org/10.1186/s12917-021-03113-3**)

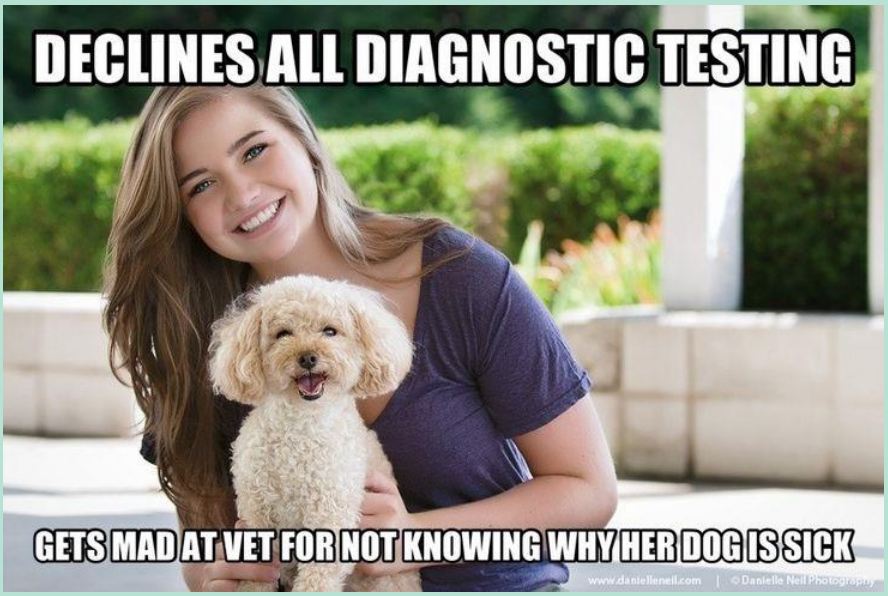
Contact Us

We would love to hear from you!

Have an interesting case, story or pictures to share with us?

Please send them secretary@van.org.na

The Veterinary Association of Namibia is a *member-led organization* for all types of veterinarians in the country. If you have any suggestions regarding activities, or would like to become a member of the Executive Committee, let us know! 😊



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