International Journal of Veterinary Sciences and Animal Husbandry

ISSN: 2456-2912
NAAS Rating (2025): 4.61
VET 2025; 10(11): 19-20
© 2025 VET
www.veterinarypaper.com
Received: 25-09-2025
Accepted: 27-10-2025

Akarsh Tyagi
Post Graduate Scholar, Department of Animal Reproduction, Gynecology and Obstetrics, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

Mohammad Irfan
Post Graduate Scholar, Department of Animal Reproduction, Gynecology and Obstetrics, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

Vandana
Post Graduate Scholar, Department of Animal Reproduction, Gynecology and Obstetrics, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

Ankur Yadav
Post Graduate Scholar, Department of Animal Reproduction, Gynecology and Obstetrics, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

Vikas Awasthi
Post Graduate Scholar, Department of Animal Reproduction, Gynecology and Obstetrics, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

Saurabh
Assistant Professor, Veterinary Clinical Complex, College of Veterinary Science & Animal Husbandry, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

Sonu Jaiswal
Professor & HOD, Veterinary Clinical Complex, College of Veterinary Science & Animal Husbandry, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

Corresponding Author:
Akarsh Tyagi
Post Graduate Scholar, Department of Animal Reproduction, Gynecology and Obstetrics, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

Congenital goitre in twin goat kids: A case report

Akarsh Tyagi, Mohammad Irfan, Vandana, Ankur Yadav, Vikas Awasthi, Saurabh and Sonu Jaiswal

DOI: https://www.doi.org/10.22271/veterinary.2025.v10.i11a.2692

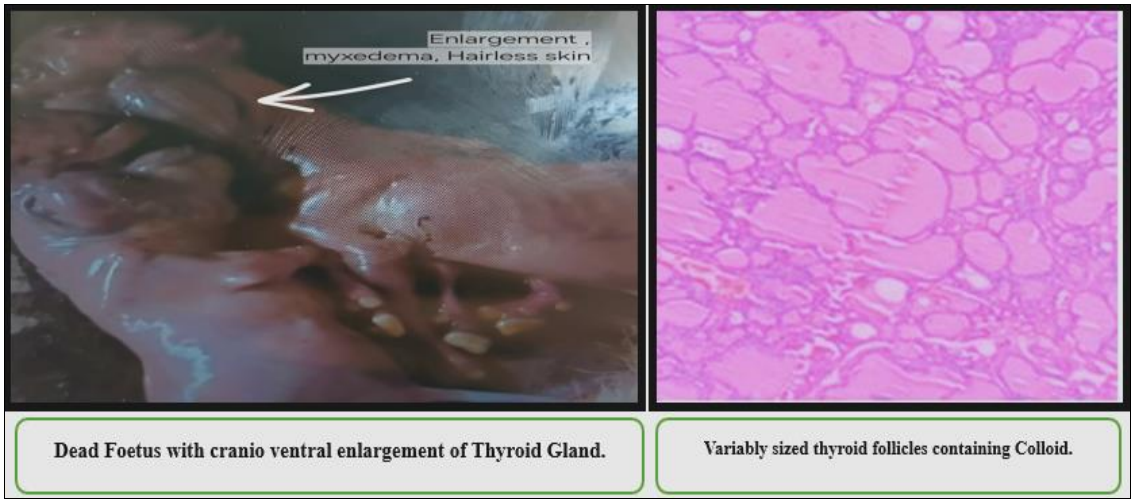
Abstract
A five-year-old pregnant goat was presented to the TVCC, ANDUAT, Kumarganj, Ayodhya, having completed its gestation period with a history of straining for the last four hours. Upon examination, two kids were delivered manually; both were stillborn. Each fetus exhibited bilateral enlargement in the cranioventral region of the neck corresponding to the thyroid gland. The skin was pale, thickened, edematous (myxedematous), and hairless. Gross and histopathological findings confirmed congenital goitre.

Keywords: Goat, Congenital goitre, Thyroid gland

1. Introduction
Iodine deficiency induces hypertrophy and hyperplasia of the thyroid follicles, resulting in non-neoplastic and non-inflammatory enlargement of the gland, commonly referred to as goitre. In small ruminants, especially goat kids, congenital goitre is a significant condition characterized by prolonged gestation, myxoedema, increased foetal size, and dystocia.
The main etiological factors include dietary iodine deficiency in the dam, ingestion of goitrogenic plants (such as those belonging to the Brassica family), and hereditary or congenital hypothyroid conditions. The present report describes a case of congenital fetal goitre in twin goat kids leading to dystocia.

Case history and observation
A pregnant goat was brought to the TVCC, ANDUAT, Kumarganj, for clinical examination. Per-vaginal inspection revealed complete cervical dilation. With manual assistance, two dead foetuses were delivered, both exhibiting noticeable bilateral swellings in the cranioventral cervical region. The carcasses were subjected to detailed gross pathological examination.

Gross examination and histopathology
Grossly, the skin of both foetuses was thickened, oedematous, pale, and devoid of hair, consistent with myxoedema (Cheema *et al*., 2010). The enlarged cervical masses were smooth, soft, and unassociated with adjacent tissues.
For histopathological evaluation, tissues from the enlarged thyroid regions were processed by standard histological methods and stained with Haematoxylin and Eosin. Microscopic examination revealed variably sized thyroid follicles containing colloid and lined by one to multiple layers of hyperplastic follicular epithelial cells. Marked vascular congestion was also observed, indicating follicular cell hyperplasia and hyperactivity of the gland.



Dead Foetus with cranio ventral enlargement of Thyroid Gland.

Variably sized thyroid follicles containing Colloid.

Conclusion

Iodine deficiency in the maternal diet, ingestion of goitrogenic plants (Brassica spp.), or hereditary enzymatic defects such as dyshormonogenetic goitre can lead to thyroid enlargement in offspring. Congenital goitre is commonly associated with late-term abortions, stillbirths, or early neonatal deaths characterized by myxoedema and alopecia. This case emphasizes the importance of adequate iodine supplementation in the diet of pregnant does to prevent congenital goitre and related reproductive losses.

Conflict of Interest

Not available.

Financial Support

Not available.

References

1. Smith MC, Sherman DM. Goat Medicine. John Wiley & Sons; 2009.
2. Davoodi F, Zakian A, Rocky A, Raisi A. Incidence of iodine deficiency and congenital goitre in goats and kids of Darreh Garm region, Khorramabad, Iran. Vet Med Sci. 2022;8(1):336-342.
3. Bíres J, Bartko P, Weissová T, Michna A, Matisák T. Jódopénia kôz príčinou kongenitálnej strumy u kozliat [Iodine deficiency in goats as a cause of congenital goiter in kids]. Veterinarni Medicina. 1996;41(5):133-138.
4. Shahzad A. Congenital Goitre in Goats. Pak Vet J. 2010;30:58-60.
5. Ratta N, Sethi GS, Ghuman SP, Gupta K. Dystocia due to fetal goiter in a goat. Int J Curr Microbiol Appl Sci. 2019;8:641-643.
6. Smith MC, Sherman DM. Goat Medicine (2nd edn). Wiley-Blackwell; Ames, USA; 2009.

How to Cite This Article
Madhan ABC. Marine bacteria: A pandora box against cancer. International Journal of Veterinary Sciences and Animal Husbandry. 2025;10(11):19-20.

Creative Commons (CC) License
This is an open-access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.