

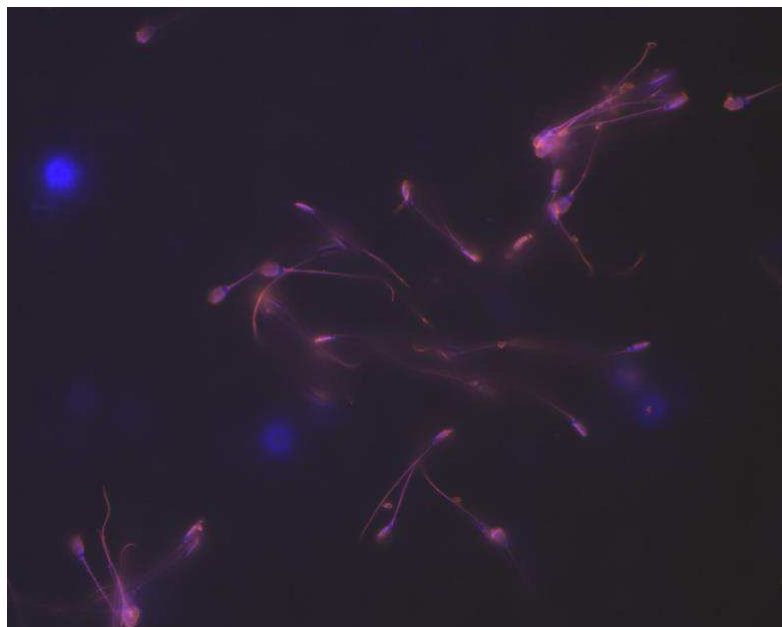
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One Health

L'Animal et l'Homme, une même santé



Serum 25-hydroxyvitamin D and 24,25-dihydroxyvitamin D in dogs with sinonasal aspergillosis

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Sinonasal aspergillosis (SNA) is a common cause of chronic nasal disease with a still poorly understood pathophysiology and which remains a challenge to treat. As convincing evidence emerge showing that vitamin D plays a role in immunity, we aimed to investigate a potential implication of hypovitaminosis D in the SNA pathogenesis. Twenty dogs with SNA, 12 healthy control dogs, 9 dogs with lymphoplasmacytic rhinitis (LPR), 10 dogs with nasal neoplasia were included. Nine dogs with SNA were available for follow up until cure. Serum vitamin D metabolites were measured by liquid chromatography tandem mass spectrometry. The vitamin D metabolite ratio (VMR) was calculated by dividing the 25(OH)D by 24,25(OH)₂D. Serum 25(OH)D and 24,25(OH)₂D were lower in dogs with SNA at the time of diagnosis (mean ± standard deviation = 23.5 ± 7,1 ng/ml – 10,5 ± 4,2 ng/ml, respectively) than in healthy dogs (34,1 ± 7,5 ng/ml; p=0,017 - 18,2 ± 5.4 ng/ml; p = 0,005) while there was no difference between healthy and dogs with tumor or LPR. There was no significant difference in serum 25(OH)D and 24,25(OH)₂D between dogs with SNA at the time of diagnosis and dogs achieving cure. The VMR was higher in SNA dogs (2,4 ± 0,7) than in control dogs (1,9 ± 0,3; p=0,031 t-test), indicating a decreased catabolic clearance of vitamin D in SNA dogs. These results further support the rationale that vitamin D could play a role in dogs with SNA as it does in human with aspergillosis. Whether hypovitaminosis D could contribute to the development of SNA or if oral supplementation could be a beneficial adjunctive therapy in affected dogs is unknown and warrants future investigations.

Longitudinal clinical follow-up of ovine caseous lymphadenitis in Settat province in Morocco

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Caseous lymphadenitis (CL) is an important infectious disease caused by *Corynebacterium pseudotuberculosis*. CL is clinically characterized by suppurative necrotic inflammation in the superficial and internal lymph nodes and in organs. In Settat province in Morocco, a mean clinical prevalence of 34.6% of CL superficial abscesses in sheep flocks was previously reported (El Khalfaoui N. et al., 2020), however incidence rate of CL new cases and its variation over time are not known. To estimate the clinical incidence and its variation over time in sheep in Settat province, a longitudinal follow-up of 274 clinically healthy sheep was conducted between February 2021 and July 2022. Recruited animals were clinically examined every 2 months to detect superficial abscesses by palpation of superficial lymph nodes. Information about the number and location of abscesses was recorded. The clinical incidence rates of new cases were calculated based on 2-month periods. Statistical analysis is in progress.

During one year of longitudinal follow-up, 185 new CL cases appeared among the 274 recruited animals, leading to a clinical incidence rate of 0.67. The proportion of new CL clinical cases during the period between April and September was higher than during the period between October and March. The higher clinical CL incidence between April and September could be explained by the indoor intensive rearing management of young animals. By combining this result with previously identified risk factors (non-published data), it is aimed to provide precise advice and guidelines to reduce and control CL in sheep flocks in Settat province in Morocco.

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