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**BIOCHEMICAL INDICATORS OF TURKEY BLOOD SERUM IN ACUTE AND CHRONIC COURSE OF HISTOMONOSIS**

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**References:**

1. Grabensteiner, E., Liebhart, D., Weissenböck, H., & Hess, M. (2006). Broad dissemination of Histomonas meleagridis determined by the detection of nucleic acid in different organs after experimental infection of turkeys and specified pathogen-free chickens using a mono-eukaryotic culture of the parasite. *Parasitology International, 55*, 317‒322. <https://www.doi.org/10.1016/j.parint.2006.07.004>

2. [Beer](https://pubmed.ncbi.nlm.nih.gov/?term=%22Beer%20LC%22%5BAuthor%5D), L. C., [Petrone-Garcia](https://pubmed.ncbi.nlm.nih.gov/?term=%22Petrone-Garcia%20VM%22%5BAuthor%5D), V. M., [Graham](https://pubmed.ncbi.nlm.nih.gov/?term=%22Graham%20BD%22%5BAuthor%5D), B. D., [Hargis](https://pubmed.ncbi.nlm.nih.gov/?term=%22Hargis%20BM%22%5BAuthor%5D), B. M., [Tellez-Isaias](https://pubmed.ncbi.nlm.nih.gov/?term=%22Tellez-Isaias%20G%22%5BAuthor%5D), G., [& Vuong](https://pubmed.ncbi.nlm.nih.gov/?term=%22Vuong%20CN%22%5BAuthor%5D), C. N. (2022). Histomonosis in Poultry: A Comprehensive Review. *Frontiers in Veterinary Science, 9*, 880738. <https://doi.org/10.3389/fvets.2022.880738>

3. Huber, K., Chauve, C., & Zenner L. (2005). Detection of Histomonas meleagridis in turkeys cecal droppings by PCR amplification of the small subunit ribosomal DNA sequence. [*Veterinary Parasitology*](https://www.sciencedirect.com/journal/veterinary-parasitology), *[131](https://www.sciencedirect.com/journal/veterinary-parasitology/vol/131/issue/3%22%20%5Co%20%22Go%20to%20table%20of%20contents%20for%20this%20volume/issue)*[(3–4](https://www.sciencedirect.com/journal/veterinary-parasitology/vol/131/issue/3%22%20%5Co%20%22Go%20to%20table%20of%20contents%20for%20this%20volume/issue)), 311‒316. <https://doi.org/10.1016/j.vetpar.2005.05.012>

4. Landman, W. J. M., ter Veen, C., van der Heijden, H. M. J. F., & Klinkenberg, D. (2015). Quantification of parasite shedding and horizontal transmission parameters in Histomonas meleagridis-infected turkeys determined by real-time quantitative PCR. *Avian Pathology*, *44*, 358–365. <https://doi.org/10.1080/03079457.2015.1058483>

5. Grabensteiner, E., & Hess, M. (2006). PCR for identification and differentiation of Histomonas meleagridis, Tetratrichomonas gallinarum and Blastocystis spp. *Veterinary Parasitology*, *142*, 223–230. <https://doi.org/10.1016/j.vetpar.2006.07.011>

6. Liu, W., Peng, J., Li, F., Sun, H., Ding, Y., & He, J. (2011). Identification of Histomonas meleagridis by in vitro microculture and polymerase chain reaction. *Reports in Parasitology*, *1,* 1–6.  <https://doi.org/10.2147/RIP.S18259>

7. Bleyen, N., Mast, J., De Gussem, K., De Guseem, J., De Gussem, M., Godderis, B.M. (2010). Histomonas meleagridis: a new focus on a re-emerging protozoan parasite. In LaMann G. V. (Ed.). *Veterinary Parasitology* (pp.1–47). New York, NY: Nova Science Publishers.

8. Bogach, M. V., & Stojanova, V. Ju. (2019). Vplyv gostrogo ta hronichnogo perebigu daveneozu na biohimichni pokaznyky syrovatky krovi kurej. *Veterynarna biotehnologija*, *35,* 15‒21. <http://vetbiotech.kiev.ua/volumes/JRN35/4.pdf> [In Ukrainian].

9. Hu, J., Fuller, L., Armstrong, P.L., & McDougald, L. R. (2006). Histomonas meleagridis in chickens: attempted transmission in the absence of vectors. *Avian Diseases*, *50,* 277–279. <https://doi.org/10.1637/7431-090605r.1>

10. Daş, G., Wachter, L., Stehr, M., Bilic, I., Grafl, B., Wernsdorf, P., Metges, C. C., Hess, M., & Liebhart, D. (2021). Excretion of Histomonas meleagridis following experimental co-infection of distinct chicken lines with Heterakis gallinarum and Ascaridia galli. *Parasites & Vectors, 14*, 323. <https://doi.org/10.1186/s13071-021-04823-1>

11. Clarkson, M. J. (1966). Progressive serum protein changes in turkeys infected with Histomonas meleagridis. *Journal of Comparative Pathology, 76*, 387–397. [https://doi.org/10.1016/0021-9975(66)90059-4](https://doi.org/10.1016/0021-9975%2866%2990059-4)

12. Oladosu, O. J., Reyer, H., & Weikard, R. (2024). Hepatic transcriptomic analysis reveals differential regulation of metabolic and immune pathways in three strains of chickens with distinct growth rates exposed to mixed parasite infections. *Veterinary Research, 55*, 125. <https://doi.org/10.1186/s13567-024-01378-8>

13. Adler, V. A., & Dmytrenko, N. I. (2024). Zminy dejakyh pokaznykiv krovi ta sechi za patologii' pechinky u svynej. Suchasni aspekty likuvannja i profilaktyky hvorob tvaryn: *Internet-konferenciya', prysvjachena' 30-richchju zasnuvannja kafedry terapii' imeni profesora P. I. Lokesa*, (pp.11‒12). poltava. <https://www.pdau.edu.ua/sites/default/files/node/1239/zbirnyktez2024poltava.pdf> [In Ukrainian].

14. Hariv, I. I. (2011). Pokaznyky biloksyntezuval'noi' funkcii' pechinky ta aktyvnist' fermentiv u syrovatci krovi indykiv za ejmeriozo-gistomonoznoi' invazii'. *Naukovyj visnyk L'vivs'kogo nacional'nogo universytetu veterynarnoi' medycyny ta biotehnologij imeni SZ G'zhyc'kogo*, *13,* 2(48), 1, 289‒292. <https://cyberleninka.ru/article/n/pokazniki-biloksintezuvalnoyi-funktsiyi-pechinki-ta-aktivnist-fermentiv-u-sirovattsi-krovi-indikiv-za-eymeriozo-gistomonoznoyi/viewer> [In Ukrainian].

15. Nishhemenko, M. P., Shmajun, S. S., Stovbec'ka, L. S., Poroshyns'ka, O. A., & Jemel'janenko, A. A. (2017). Aktyvnist' dejakyh fermentiv syrovatky krovi perepilok za vplyvu lizynu, metioninu ta treoninu v pojednanni z vitaminom E. *Naukovyj visnyk veterynarnoi' medycyny*, *2,* 79‒84. [https://rep.btsau.edu.ua/bitstream/BNAU/4290/1/aktivnіst%27\_dejakih.pdf](https://rep.btsau.edu.ua/bitstream/BNAU/4290/1/aktivn%D1%96st%27_dejakih.pdf) [In Ukrainian].

16. Vlizlo, V. V., Fedoruk, R. S., & Ratych I. B. ta in. (2012). *Laboratorni metody doslidzhen' u biologii', tvarynnyctvi ta veterynarnij medycyni*. In V. V. Vlizlo. (ed.). L'viv: Spolom, 764. <https://www.inenbiol.com/index.php/63-diyalnist/publikaciii/knyhy/349-laboratorni-metody-doslidzhen-u-biolohii-tvarynnytstvi-ta-veterynarnii-medytsyni> [In Ukrainian].

17. Simmonds, R. C. (2018). Bioethics and animal use in programs of research, teaching, and testing. In R. H. Weichbrod, G. A. H. Thompson, J. N. Norton (eds.). *Management of animal care and use programs in research, education, and testing*. (2nd edition). Boca Raton (FL): CRC Press/Taylor & Francis, Chapter 4. https://doi.org/[10.1201/9781315152189-4](https://doi.org/10.1201/9781315152189-4%22%20%5Ct%20%22_blank)

18. Kabene, S., & Baadel, S, (2019). Bioethics: a look at animal testing in medicine and cosmetics in the UK. *Journal of Medical Ethics and History of Medicine*, *12,* 15. https://doi.org/[10.18502/jmehm.v12i15.1875](https://doi.org/10.18502/jmehm.v12i15.1875%22%20%5Ct%20%22_blank)

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