Morphological variation of the corona radiata in Oesophagostomum dentatum, O-quadrispinulatum, and O-radiatum (Nematoda: Strongyloidea) - DTU Orbit (25/09/2019)

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The anterior end of 76 adult and of several juvenile Oesophagostomum dentatum, of 75 adult O. quadrispinulatum, and of 70 adult O. radiatum (Strongylida, Nematoda) was investigated by scanning electron and light microscopy. Both an external and an internal ring of buccal leaves (corona radiata externa and interna) are present in O. dentatum and O. quadrispinulatum, whereas a single ring of buccal leaves occurs in O. radiatum. Remnants of external buccal leaves indicate that the single ring of leaves found in the latter species is homologous to the corona radiata interna of O. dentatum and O. quadrispinulatum. The number of buccal leaves of the corona radiata varies remarkably in adults of all 3 species. There are 9-12 external leaves in O. dentatum, 9-11 external leaves in O. quadrispinulatum, and 30-40 internal leaves in O. radiatum. Nine leaves are most common in both O. dentatum and O. quadrispinulatum, but the former species shows a higher frequency of individuals with more than 9 leaves. In O. radiatum, buccal leaves usually occur in even numbers and very rarely in odd numbers. Small, regularly arranged protuberances outside the ring of buccal leaves may indicate reduced leaves of the corona radiata externa. Juveniles of O. dentatum do not possess buccal leaves, but a thin cuticular velum in the fourth stage and neither a corona nor a velum in the second and first stage.

General information
Publication status: Published
Organisations: National Veterinary Institute, Technical University of Denmark
Contributors: Neuhaus, B., Bresciani, J., Christensen, C., Sommer, C.
Pages: 128-136
Publication date: 1997
Peer-reviewed: Yes

Publication information
Journal: Journal of the Helminthological Society of Washington
Volume: 64
Issue number: 1
ISSN (Print): 1049-233X
Original language: English
Keywords: Oesophagostomum dentatum, polymorphism, corona radiata, Oesophagostomum quadrispinulatum, Oesophagostomum radiatum
Source: orbit
Source ID: 230415
Research output: Contribution to journal › Journal article – Annual report year: 1997 › Research › peer-review