Mesocestoides lineatus (Goeze, 1782) (Mesocestoididae): new data on sperm ultrastructure.

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ABSTRAC
Spermiogenesis and the ultrastructural characters of the spermatozoon of Mesocestoides lineatus are described by means of transmission electron microscopy, including cytochemical analysis for glycogen. Materials were obtained from a golden hamster (Mesocricetus auratus) after experimental infection with tetrathyridia metacestodes obtained from naturally infected lizards (Anolis carolinensis) from Louisiana. Spermiogenesis in M. lineatus is characterized by the orthogonal growth of a free flagellum, a flagellar rotation, and a proximodistal fusion. The zone of differentiation contains 2 centrioles associated with striated rootlets and a reduced intercentriolar body. The mature spermatozoon of M. lineatus lacks a mitochondrion, and it is characterized by the presence of (1) a single, spiraled, crested body 150 nm thick; (2) a single axoneme of the 9+'1' pattern of trepaxonematan Platyhelminthes; (3) a parallel and reduced row of submembranous cortical microtubules; (4) a spiraled cordon of glycogen granules; and (5) a spiraled nucleus encircling the axoneme.

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