First Record of Setaria Tundra in Danish Roe Deer (Capreolus Capreolus) - DTU Orbit (30/11/2018)

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No previous finds of the mosquito-borne filarioid nematode Setaria tundra have been reported from Denmark, although it was described decades ago in Swedish and Norwegian reindeer as well as in roe deer from Germany, Bulgaria and more recently also from Italy and Finland. Setaria spp. are usually considered harmless inhabitants of the abdominal cavity of ungulates causing only focal areas of mild chronic peritonitis. However, in recent years S. tundra has been associated with an emerging epidemic disease resulting in severe morbidity and mortality for both reindeer and moose in Finland. The Danish find of S. tundra was from a fawn shot in October 2010 near Randers, in the eastern part of Jutland. At slaughter several (>20) approximately 5 cm long, slender, white worms were observed in the peritoneal cavity. Morphology of the worms, revealed by light microscopy, correlated to that of S. tundra described by Rejewsky (1929) and Nikander et al. (2007). Sequences of the mitochondrial 12S rRNA and cox1 genes, 454 and 595 base pairs respectively, were 99.5-99.7% identical to previously published S. tundra isolates from France and Italy. Roe deer are thought to be asymptomatic carriers of S. tundra, and may be connected to the spreading of this parasite. In reindeer heavy worm burdens of S. tundra have been found to cause severe peritonitis and negatively affect body condition score. Thus in the light of the possible climatic changes which could result in warmer, more humid weather in Scandinavia and thereby larger numbers of mosquitoes, it is important to monitor this vector-borne parasite. This will not only increase the understanding of factors promoting its expansion but also help to predict disease outbreaks.

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