CHAPTER 6

INTESTINAL SPIROCHETOSIS IN MAN AND OTHER ANIMALS.

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Contents

Extended abstract
Further reading
Intestinal spirochetosis in man is characterized by a massive infestation of spirochetes in the lumen of the colon and appendix. The spirochetes attach to the epithelial cells at the bases of the microvilli. The epithelial cells appear unaffected in spite of the massive infestation. The only difference between cells with and without attached spirochetes is that the microvilli were shorter and more sparse when spirochetes were present. It has not been possible to obtain any correlation between clinical symptoms and the presence of the intestinal spirochetes. The spirochetes, called *Brachyspira aalborgi*, were originally isolated from rectal biopsies from patients with intestinal spirochetosis. The organisms can be cultivated on trypticase soy agar plates supplemented with 5% calf blood. They grow very slowly and need 2 weeks of incubation to produce small, barely visible colonies. Two kinds of colonies were usually isolated, one was flat, slowly spreading and showed a very weak haemolysis. The other was convex with no detectable haemolysis. Both were colourless. Spirochaetes have been isolated from rectal biopsies and from faeces. Whether or not persons with intestinal spirochetosis produce antibodies against the spirochetes they carry is presently unknown.

Intestinal spirochetosis in swine is characterized by a high number of spirochetes present in the colonic lumen as well as in the crypts. The spirochetes have not been seen to attach to epithelial cells. The colonic epithelium is heavily damaged in pigs with swine dysentery and pigs with spirochetal colitis. The tissue disintegrates and