Histopathologic and ultrastructural findings of *Sphaerospora dicentrarchi* (Myxosporea: Bivalvulida) in European seabass (*Dicentrarchus labrax* L.) in Turkey

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Parasitic diseases of fish are responsible for significant economic losses in aquaculture. Among these, some myxosporeans represent a serious threat to marine culture. *Sphaerospora dicentrarchi* (*S. dicentrarchi*) is a systemic histozoic parasite of the European seabass, *Dicentrarchus labrax*, infecting the connective tissue of most of the organs in its hosts, with a preference for the gall bladder and the intestine.

From October 2016 to March 2017, 200 adult sea bass (weight 320-480 g) were collected from fish farms in Bodrum and Didim Gulfs. Following necropsy, tissues were fixed in 10% neutral buffered formalin, and stained with haematoxylin-eosin and periodic acid - Schiff (PAS). Tissues from stomach, intestine and gall bladder were examined by transmission electron microscopy.

In the light microscopical examination, *S. dicentrarchi* was found in the stomach, intestine and gall bladder of 136 fish (68%). Bag-like groups of spores were located in the muscularis wall of these organs, and were easily identified by their strong positive PAS reaction. In some fish, mild inflammatory reactions around the spores were observed. The ultrastructural examination revealed *S. dicentrarchi* was seen in bag-like groups, and binucleated mature spores and valvogenic spheroidal structures were detected.

In the present study, the light and ultrastructural findings of the *S. dicentrarchi* were investigated. This study is the first report of *S. dicentrarchi* from cultured seabass in Turkey.

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