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Summary sheet for vibriosis caused by *Vibrio anguillarum*

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Aetiological agent

Vibrio anguillarum

Epidemiology

Hosts: European seabass (*Dicentrarchus labrax*), gilthead seabream (*Sparus aurata*), sole (*Solea* spp.), sea mullet (*Mugil* spp), turbot (*Scophthalmus maximus*) and eel (*Anguilla anguilla*).

Morbidity and mortality rates: Varying depending on age/size, and co-infections; in seabass mortality in the grow-out phase can reach 30% but may increase.

Transmission: Horizontal.

Factors (environmental, others) for disease outbreak: Occurs at seawater temperatures between 13-21°C, but mainly after a sudden increase in temperature in spring or decrease in autumn. In winter months disease is more often in chronic form. The disease may follow stressful conditions.

Clinical signs

Acute form - lethargy, anorexia and darkening of the skin erythema around mouth and vent, on the fin base, edematous skin lesions, opacity in the eyes, exophthalmia; subacute bleeding on the head, operculum, vent, pale gills with haemorrhages; chronically large granulating lesions deep into the muscle, severe anaemia of gills, grey corneal opacity, progressing to ulceration. Autopsy in acute and subacute forms reveals bleeding of the liver, posterior part of the intestine, rarely in the stomach.

Samples to be collected for diagnostics

Moribund whole fish or target organs, such as the spleen, head kidney, brain, cutaneous or ocular lesions.

Presumptive diagnostics analysis

Observation of erythema on the fin base, operculum, head, gills, liver and intestine
Bacterial culture from target tissues on BA, TSA 2%NaCl and Marine Agar produce grey whitish colonies after 24-36 h at 22-25°C. Isolates appear generally yellow on TCBS. Inoculation of API 20E strips with 2%NaCl inoculum produces at 25°C most frequent profiles: 304452456, 304572557, 304652456.

Confirmatory diagnostic analysis

MALDI-TOF, end-point PCR (*amiB* gene) or amplification and phylogenetic analysis of a portion of the *pyrH* gene.



Haemorrhages on the operculum,
fin base, fins



Bleeding on the liver and intestine