IMMUNE RESPONSE IN SKIN MUCUS FROM OCULAR AND BLIND SIDES OF SENEGALESE SOLE (Solea Senegalensis) AFTER BACTERIAL CHALLENGE

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Introduction

Flatfish species Few studies in flatfish mucosal immune response

Mucosal immune response plays an essential role in the course of the infection

Role of the skin mucus has been evaluated in several fish species with economic interest to aquaculture

Aim

Evaluation of several immune-related enzymes and bactericidal activity in skin mucus from ocular and blind sides of Senegalese sole after bath challenge with Tenacibaculum maritimum

Results

3 FISH

Activities measured appear in different levels between the ocular and blind sides which could be due to the biology of the flatfish

Tenacibaculosis is one of the most threatening bacterial infections limiting the culture of Senegalese Sole

All the studied molecules were constitutively present in both skin mucus sides and seem to play a different role in the mucosal immune response

This preliminary study seems to reveal more immune activity in the ocular than in the blind side

Conclusions

There are few studies on mucosal immune response of flatfish. Therefore, more studies would be required to improve the knowledge of the biology and function of this essential barrier in flatfish, specially after bacterial challenge, which could have important applications for fish farmers.

Discussion

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