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Effect of mixed infection between *Pseudomonas* Spp and *Mycotic* infection on *O. niloticus* fish

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ABSTRACT

This work aimed to study the incidences of mixed infection between Pseudomonas and mycotic infection especially saprolegnia and its effect on the health condition of O. niloticus fish. Our study was carried-out on one Hundred naturally infected O. niloticus showed skin infection that, were obtained from private Fish Farm at Kafr-El- Sheikh Governorate, with an average body weight of (60 ± 5 gm). They were used for evaluation of the pathogenicity of isolated P. fluorescence bacteria.Clinical signs and postmortem examination Our results concluded that, the mixed infection of both mycotic and pseudmomonas causes marked and severe decrease in fish immunity, with marked and severe histopathological changes in external and internal organs that include liver, spleen ..

Keywords: ***Pseudomonas, Mycotic,* infection, *O. niloticus***

INTRODUCTION

Aquaculture has an important role in the development and meeting the increase demand for aquatic animal production, Haylor and Bland (2001) . Aquaculture industry gradually developed in the world as well as in Egypt. The health keeping of fish depended on the relationship between fish, environment and pathogens .

Fish diseases due to bacterial pathogenic are the major problems in aquaculture as they are found naturally in fish environment and under certain stress conditions cause severe economic losses to fish farms (Post, 1987).

With increasing expansion of aquacultural industry and greater demands on the aquatic products for more production, the opportunity increased for appearance of bacterial undescribed diseases. *Pseudomonas flourscence*. On recently described bacterial diseases of cultured freshwater fish, P. fluorescence has been incriminated as one of the most common bacterial pathogens among fish it appears to be stress related disease of freshwater fish especially under culture conditions (El- Kasaby, 2010) . *P. fluorescence* is present in many species of fish and remain undetected until stress, particularly associated with intensive culture with poor water quality, which may result in heavy losses requiring immediate intervention. (Hussein *et al*., 2001).

Outbreaks of water born fungal infections of fish, Amphibians, and Reptiles are common problems especially in fish

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تأثير العدوى المشتركة لكل من بكتريا السودموناس والعدوى الفطرية على أسماك البلطى النيلى

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هذه الدراسة تهدف إلى دراسة تأثير العدوى المشتركة لكل من بكتريا السودموناس والعدوى الفطرية على أسماك البلطى النيلى .

فى هذه الدراسة تم العمل على ١٠٠ عينة من أسماك البلطى النيلى الحرة الطبيعية والتى ظهر عليها أعراض جلدية وخيشومية تم الحصول عليها من مزارع خاصة بمحافظة كفر الشيخ بأوزان تتراوح من ٦٠ : ٦٥ جم . من خلال تلك الدراسة تم فحص وعزل بكتريا السودموناس وأنواعها المختلفة وتسجيل أهم الأعراض الداخلية والخارجية بالإضافة إلى العزل الفطرى والمتلخص فى الفطريات الخارجية وخصوصاً فطر الساليجنيا ، وتم التوصل إلى النتائج الآتية : نقصان حاد فى الاختبارات المناعية وكذلك تغييرات عالية فى الأعضاء الداخلية من خلال دراسة التغيرات الهيستوباثولوجية لكل من الكيد - الكلى - الطحال والخياشيم.