

臺灣文蛤奧爾森派金蟲感染之診斷與病例報告

生物組

吳介豪 助理研究員

摘要

奧爾森派金蟲(*Perkinsus olseni*, PO) 感染症為一種寄生雙殼貝類之原蟲感染症，為世界衛生動物組織(WOAH)表列疾病，可感染多物種，包含雙殼貝類下牡蠣、扇貝、蛤蜊等。*Perkinsus sp.*屬包含 *Perkinsus olseni*, *P. marinus*, *P. beihaiensis*, *P. chesapeakei* 等，可造成不同種軟體動物感染。文獻指出蛤蜊感染 *Perkinsus sp.*可能有高死亡率、慢性感染或無症狀，與 *Perkinsus sp.*種類、宿主、環境因素有關。

本案為彰化縣動物防疫所送檢文蛤檢體，畜主表示自今年4月初下雨過後，開始出現少量生長遲滯及文蛤死亡情形，死亡率約5%，該場文蛤無明顯肉眼病變，組織病理學檢查於鰓、腸道及精巢之病灶區可見少量原蟲細胞，類似圖章戒指(signet-ring)形態之未成熟滋養體(trophozoites)。分子生物學檢查檢出奧爾森派金蟲核酸陽性，取增幅產物 ITS rRNA 基因片段 453bp 與 NCBI 基因庫序列比對，與日本及韓國菲律賓簾蛤感染奧爾森派金蟲之基因相似度為 99.78%。本病例為臺灣首次奧爾森派金蟲感染之病例報告。

First Report of the Protozoan Parasite *Perkinsus olseni*

Infection of *Meretrix taiwanica* in Taiwan

Chieh-Hao Wu

Abstract

Protozoan parasites of *Perkinsus olseni* are important pathogens in numerous wild and farmed bivalve species. The infection of *P. olseni* is listed by WOAHP, and can result in mass mortality and economic losses. *Perkinsus* sp. contain the species of *P. olseni*, *P. marinus*, *P. beihaiensis*, *P. chesapeaki* etc. These species of *Perkinsus* can infect many different mollusks and cause high mortality, chronic infection or no clinical signs. In this study, *P. olseni* was detected in farmed *M. taiwanica* from Changhua County. The clinical signs showed that the stunted growth, and the mortality rate was 5% after heavy rain in April. There was no gross lesion in the case. The histological examination revealed protozoan trophozoites in the gill, and the connective tissues of digestive gland and gonads. Protozoan cells were infiltrated by inflammatory cells with increased connective tissues. PCR screening of the tissues using specific primer pairs detected the *P. olseni*. Analyzed by the Basic Local Alignment Search Technique (BLAST), the internal transcribed spacer (ITS) sequence was most identical with *P. olseni* discovered in Manila clams (*Ruditapes philippinarum*) (the shared identity was 99.87%). This is the first report of *Perkinsus olseni* infection in farmed clams (*Meretrix taiwanica*) in Taiwan.