

葡萄牙牡蠣感染類馬爾太蟲之診斷與病例報告

生物組

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摘要

類馬爾太蟲(*Marteilioides chungmuensis*)是一種牡蠣原蟲寄生蟲，感染可造成牡蠣生殖腺呈大小不一團塊，以及受感染牡蠣的營養消耗，進而影響經濟價值。本所 112 年 2 月於南部沿海養殖葡萄牙牡蠣 (*Crassostrea angulata*) 檢出卵內寄生蟲 *M. chungmuensis* 感染。肉眼觀察三分之一牡蠣生殖腺外觀呈現大小不一團塊，殼表面有大量附生物，組織病理學檢查顯示卵母細胞之細胞質有原蟲一級細胞及二級細胞感染，卵巢濾泡內卵母細胞受原蟲擠壓變形。使用 18S rDNA 基因特異性引子進行聚合酶鏈反應檢驗，確認為類馬爾太蟲，定序結果與韓國長牡蠣 (*C. gigas*) 及日本地區近江牡蠣 (*C. ariakensis*) 感染類馬爾太蟲之基因相似度為 100%。本病例為首次於臺灣養殖葡萄牙牡蠣檢出類馬爾太蟲感染。

Case Report: protozoan parasite *Marteilioides chungmuensis* infection of portuguese oyster (*Crassostrea angulata*)

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Abstract

Marteilioides chungmuensis is a protozoan parasite of oysters that can cause nodule-like growths in the ovaries and nutritional wasting in infected female oysters, potentially affecting their marketability due to appearance changes. In February 2023, *M. chungmuensis* was detected in farmed Portuguese oysters (*Crassostrea angulata*) from the southern coastal areas of Taiwan. Clinical signs included irregular nodule-like structures on the gonads (1/3 of cases) and extensive periphyton attached to the oysters. Histological examination revealed infected oocytes containing protozoan primary and secondary cells in their cytoplasm. The ovarian follicles were filled with distorted ova containing *M. chungmuensis*. PCR screening of the tissues using specific primer pairs confirmed the presence of *M. chungmuensis*. Based on the Basic Local Alignment Search Tool (BLAST), the 18S rDNA gene sequence showed the closest similarity (100% identity) to *M. chungmuensis* previously discovered in *C. gigas* and *C. ariakensis*. This study represents the first report of *M. chungmuensis* infection in farmed *C. angulata* in Taiwan.