國立臺灣海洋大學食品科學系碩士班
專題討論書面報告

韓國沿海養殖場和越南河內零售海鮮分離之腸炎弧菌抗生素抗藥性

Antimicrobial resistance of *Vibrio parahaemolyticus* isolated from the aquaculture farms along the Korean coast and retail seafood in Hanoi, Vietnam

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內容	時間掌握	表達能力	投影片	書面資料
40%	10%	30%	10%	10%

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Outline

1. Introduction
2. Distribution and antimicrobial resistance of *Vibrio parahaemolyticus* isolated from fish and shrimp aquaculture farms along the Korean coast
3. Quantification and antimicrobial resistance of *Vibrio parahaemolyticus* in retail seafood in Hanoi, Vietnam
4. Conclusion

Abstract

Vibrio parahaemolyticus is a major cause of foodborne diseases and a significant threat to human health worldwide. Most of the infections caused by *V. parahaemolyticus* are usually associated with the consumption of raw or undercooked seafood. *V. parahaemolyticus* in water samples and aquatic animals (fish and shrimp) was isolated from major aquaculture farms along the Korean coast in 2018. The strain was detected in 34.7% of all samples tested, and was detected at higher levels during summer to autumn when the water temperature is higher. The isolates exhibited higher resistance to two antibiotics (colistin and ampicillin). To determine the prevalence, quantitative load, and antimicrobial resistance of *V. parahaemolyticus* in retail seafood in Hanoi, Vietnam. A total of 120 seafood samples consisting of marine fish (n = 30), oysters (n = 30), shrimp (n = 30), and squid (n = 30) were purchased from different traditional markets in Hanoi between May and October 2020. The most-probable-number (MPN) method was used for quantification. The disk diffusion method was applied for antimicrobial susceptibility testing. Overall, *V. parahaemolyticus* was detected in 58.33% of the samples. *V. parahaemolyticus* was most commonly isolated in shrimp samples, with a prevalence of 86.67%, followed by fish (53.33%), squid (53.33%), and oysters (40%). One *V. parahaemolyticus* isolate from an oyster carrying the *trh* gene was detected. Of the positive samples, 27.14% contained *V. parahaemolyticus* counts of less than 2 log MPN/g, whereas 44.29% ranged from 2 to 4 log MPN/g and 28.57% contained more than 4 log MPN/g. Regarding antimicrobial resistance, 85.71% of *V. parahaemolyticus* isolates were resistant to at least one antibiotic tested. The highest rate of resistance was observed against ampicillin (81.43%). The results of these studies demonstrate the high prevalence and the antimicrobial resistance of *V. parahaemolyticus* from seafood, which should be continuously valuated.