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CHEMISTRY, SOURCES, AND TOXICOLOGICALASPECTS OF DOMOIC ACID

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ABSTRACT

Domoic acid (DA) is a hapten, kainic acid and a potent neurotoxin. Upon exposure, it causes amnesic shellfish poisoning (ASP). The toxin is produced by microscopic algae, specifically diatomic genus known as *Pseudo-nitzschia*. DA is accumulated in shellfish, sardines, and anchovies. Poisoning results in human and other marine mammals, when they eat contaminated seafood. Toxicological symptoms of ASP involved epilepsy, headache, dizziness, confusion, short term memory loss, seizures, cardiac, respiratory, abdominal disorders, coma and possible death. ASP was characterized as a prolonged epileptic disorder after a series of pathological investigative studies in California sea lions over DA intoxication incidents between 1998 and 2006. This review extends the understanding of pathological aspects of DA toxicology.

KEYWORDS: Domoic Acid, Amnesic Shellfish Poisoning, Neurotoxin, Pathology, Sea Lion