CHARACTERIZATION OF *Vibrio* spp. IN ANIMALS OF MARINE HABITS AT BRAZILIAN COAST

Authors: Siqueira, R.[1]; Roges, E.M.[1]; Cardoso, M.D[3].; Ott, P.H[4].; Siciliano, S.[2]; Rodrigues, D.P.[1]

[1]FIOCRUZ - Fundação Oswaldo Cruz - Laboratório de Referencia Nacional em Enteroinfecções Bacterianas,
[2]FIOCRUZ - Fundação Oswaldo Cruz - Escola Nacional de Saúde Pública Sérgio Arouca,Departamento de Endemias Samuel Pessoa, Grupo de Estudos de Mamíferos Marinhos da Região dos Lagos – GEMM-Lagos.
[3]FIOCRUZ - Programa de Pós-Graduação em Saúde Pública e Meio Ambiente, Fundação Oswaldo Cruz, Escola Nacional de Saúde Pública Sérgio Arouca.
[4]GEMARS - Grupo de Estudos de Mamíferos Aquáticos do Rio Grande do Sul

Vibrionaceae bacteria are ubiquitous in marine and estuarine ecosystems and comprise one of the major microbiota of these systems. Many *Vibrio* spp. are serious pathogens for animals with aquatic inhabits. Vibriosis is one of the most prevalent diseases in fishes and other aquatic animals and is widely responsible for mortality in cultured aquaculture systems worldwide. Since January, 2016 to February, 2017 there were collected 560 swabs of aquatic mammals, fishes, chelonians and birds of aquatic habits, beached or captured in various coastal regions of Brazil and sent to LABENT/IOC/FIOCRUZ. The samples were submitted to enrichment in Alkaline Peptone Water (APW) added with 1% of sodium chloride (NaCl) incubated at 37°C/18-24 hours. After the samples were streaked onto Tiossulfate Citrate Bile Sucrose Agar (TCBS), the suspected colonies were yield to biochemical characterization. We found 625 *Vibrio* strains distributed among 25 species. *Vibrio fluvialis*(15,7%), *V. cholerae* not O1/ not O139 (13,5%), *V.coralliilyticus*(7,4%), *V. alginolyticus*(5,6%)*V. vulnificus*(4,8%) and *V. hepatarius*(4,8%) were the highest pathogens isolated between the totalities stains. Considering fishes' strains (n=344), *V. cholerae* not O1/ not O139 and *V.fluvialis* (17,7% each) were the most frequent isolates. Otherwise, in birds of aquatic habits the prevalence was of *V. vulnificus* (15%). About the marine mammals' strains (n=93), there were observed predominance of*V. alginolyticus* (17,2%). And in chelonians (n=44) the majority of strains were *V. fluvialis* (43%). The microbial diversity founded could be evaluated in two ways. As cause of illness affiliated with erratic migrations or as opportunistic pathogens due the animals stress conditions. These results point the importance of microbiological surveillance and monitoring accomplishment of *Vibrio* species and reinforcement of environmental protective programs.

Keywords: *Vibrio* spp., public health, environment