

TITLE: ISOLATION OF *VIBRIO CHOLERAE* O1 IN BLOOD CULTURE FROM A PATIENT ATTENDING A PUBLIC TERTIARY HOSPITAL IN SALVADOR, BAHIA.

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ABSTRACT: *Vibrio cholerae* is a straight or curved Gram-negative bacillus (*Vibrio* form), belonging to the family *Vibrionaceae*, furnished by means of polar flagellum, that presents fermentative and oxidative metabolism and can be found in free form in the water. Serogroups O1 and O139 are more associated with the classic cases of severe diarrheal diseases (cholera). On the other hand, infections such as mild gastrointestinal and extra-intestinal sites, such as wounds, urine, cerebrospinal fluid and blood, are more related to non-O1 and non-O139 serogroups. In the literature there are few reports of cases of isolation of *Vibrio cholerae* O1 in blood cultures, and most cases occurred in patients with hematological or hepatic diseases.

In this work we report the isolation of *Vibrio cholerae* O1 in blood culture from a patient attending a public tertiary hospital in Salvador, Bahia. Blood culture showed positivity after 08 hours of incubation in the automated system Bactec FX and bacterioscopy, by Gram method, revealed the presence of Gram negative bacillus (BGN). Sowing by depletion in chocolate Agar and MacConkey Agar showed growth of BGN in both media after 24 hours of incubation at 35 ° C in aerobiosis. Identification was performed through conventional biochemical tests and Vitek II automated system. Confirmation of the species was performed through Vitek MS system in a state reference laboratory. The isolate was sent to a national reference laboratory for serological classification, where the isolation of *Vibrio cholerae* O1 Inaba was confirmed.

For laboratory diagnosis in endemic outbreaks, specific culture media (APW, TCBS and others) are commonly used for faecal samples. In the case of other types of samples, the microbiologist should be aware of the possibility of isolation of this microorganism in culture media used routinely, since most laboratories do not use specific means to culture this agent. It is also important to emphasize that this bacterium may not present in the classical form of vibrio in the bacterioscopy, which makes it difficult to identify. In case of suspected isolation of *Vibrio cholerae*, it is essential to notify the case for epidemiological surveillance in order to adopt individual and collective measures aimed at preventing its dissemination.

Keywords: *Vibrio cholerae*, Blood culture, *Vibrionaceae*.