**Title:** Isolation and identification of Vibrio cholera

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**Abstract:** Background and Objectives: Vibrio cholerae is the bacteria that causes cholera; a potentially epidemic and life-threatening secretory diarrhea characterised by numerous, voluminous watery stools, often accompanied by vomiting and resulting in hypovolemic shock and acidosis. It can also cause mild or unapparent infections. Cholera disease caused by toxigenic Vibrio cholerae is of extraordinarily rapid onset and potentially high lethality. Vibrio species are most widely recognized for their role in human intestinal infection.

We aimed to Isolation of V. cholerae from sewage, milk, cooked rice, eggs and vegetable.

**Methods:** Sewage specimen collected in sterile containers and transported to the laboratory. Contaminated food include milk, cooked rice, eggs and vegetable can serve as a vehicle for the transmission of cholera. Two tenfold dilutions (10^-2 and 10^-3) samples in APW. The specimens was grown on TCBS, TTGA, and MAC agar plates at 37°C for 24 h. Several methods have been developed and used to detect V. cholerae and include string, oxidase, lysine, ornithine. Positive samples were furthermore tested by specific anti-V.cholerae LPS antibodies via ELISA method.

**Results:** Typical colonial morphology on TCBS Agar is Large yellow colonies and on TTGA is Grey and on Mac agar is colorless to light pink. All methods for identification V.cholera showed positive result.

**Conclusions:** TCBS agar is commercially available and easy to prepare, requires no autoclaving, and is highly differential and selective. Growth on TCBS agar showed to be highly useful compared to other tests and all yellow colonies on TCBS agar resulted positive by ELISA method. TCBS is the medium of choice for the isolation of V. cholerae and is widely used worldwide and Sewage is best specimens for isolation and identification of Vibrio cholera.

Vibrio cholera, TCBS Agar, ELISA method

Presentation: Poster