

Introduction:

The first Aeromonas strain was described by Zimmermann in the year 1890. Caselitez established its pathogenicity in humans. Aeromonas genus can cause multiple inflammation, sepsis, pneumonia, liver abscess, sub-phrenic abscess, etc. It was earlier a zoonotic pathogen. It is mostly found in aquatic environment. There are three main types of Aeromonas species: (i) A. caviae, (ii) A. hydrophilia, (iii) A. sovria. The blood culture of the patient under study showed growth of Aeromonas Caviae organism.

Case History:

The patient under study was referred from another hospital with the diagnosis of CVA (Left thalamic bleed) and complains of reduced urinary output for 2 days. She was doing fine there and had improved considerably but 4 days prior to admission to our hospital, she developed respiratory distress for which she was intubated and put on mechanical ventilation. Gradually her condition deteriorated and she developed acute renal failure. So she was referred here for further management. Her blood culture report in the previous hospital showed growth of AeromonasCaviae organism.

On evaluation in this after her admission, patient was found to have AKI, septic shock with multi organ dysfunction, thrombocytopenia, urosepsis (Klebsiella). Initially she was admitted in the ICU and managed conservatively with antibiotics. Multiple units of platelets were transfused for thrombocytopenia with bleeding. Neurology and nephrology consultation were taken and advice followed. Hemodialysis was done. After stabilization, she was shifted to ward and discharged from there.

Discussion:

AeromonasCaviae is a gram negative, facultative, anaerobic, rod-shaped bacteria. Usually humans carry this organism in the gastro-intestinal tract. These are found in meat and dairy products. They can cause diarrhea in human. The different virulent factors are: (i) Hemolysin, (ii) Enteritoxin, (iii) Haemagglutinin, etc. Their virulence is caused by forming biofilms using quosum sensing. They have been observed to be universally resistant to narrow spectrum penicillin group of antibiotics and are usually multi drug resistant. However, they are susceptible to carbapenams, piperacillin, second/third generation cephalosporins. This is the most frequent organism in all aeromonas bacteremia in japan 1. There are case report of causing severe infections like narcotizing fasciitis also 2. Severe acute gastroenteritis is also reported by this organism even in immunocompetent person 3.



Conclusion:

Aeromonas infections are a real public health concern. Specially in developing world it may be grossly underestimated. 4

Referrences:

- 1. Scand J Infect Dis. 2013 Apr;45(4):304-9. doi: 10.3109/00365548.2012.737474. Epub 2012 Nov 20.
- 2. Kumar S, Mukhopadhyay P, Chatterjee M, et al. Necrotizing fasciitis caused by Aeromonascaviae. Avicenna Journal of Medicine. 2012;2(4):94-96. doi:10.4103/2231-0770.110740.
- 3. Dwivedi M., Mishra A., Prasad A., Azim A., Singh R.K., Baronia A.K. et al .Aeromonascaviae septicemia in immunocompetent gastrointestinal carriers. Braz J Infect Dis [Internet]. 2008 Dec [cited 2018 Sep 02]; 12(6): 547-548. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-86702008000600023&l ng=en. http://dx.doi.org/10.1590/S1413-86702008000600023.
- 4. Igbinosa IH, Igumbor EU, Aghdasi F, Tom M, Okoh AI. Emerging Aeromonas Species Infections and Their Significance in Public Health. The Scientific World Journal. 2012;2012:625023. doi:10.1100/2012/625023.

Author:

Dr. NanditaDeka, Fellow, Critical Care Medicine Narayana Superspeciality Hospital, Guwahati, Assam

Author



View all posts