



***Escherichia fergusonii*: an Emerging Pathogen in South Orissa**

Dear Editor,

Escherichia fergusonii and *Enterobacter taylorae* have recently been recognised as emerging pathogens. Formerly known as Enteric Group 10 and 19, these are new species in the family *Enterobacteriaceae*.^{1,2} By DNA hybridization, strains of *E. fergusonii* were found to be 90-97% related to the type strain (holotype) ATCC 35469 and most closely related to *E. coli*. *E. fergusonii* can be differentiated from *E. coli* by being sorbitol and lactose negative but adonitol positive.³ In the present study, 104 *E. fergusonii* strains were isolated from 600 clinical specimens processed at the Department of Microbiology MKCG medical college, during a period of one year (April 2003 to March 2004). Majority were isolated from wound infection (63) followed by urine (37), pleural fluid (3) and blood (1). *E. fergusonii*, *E. hermannii* and *E. vulneris* have been isolated from clinical specimens and from the intestinal contents of humans and warm blooded animals. They are opportunistic pathogens and have occasionally been associated with wound infections in humans.⁴ Isolation of *E. fergusonii* has also been reported from four different sites (gall bladder fluid, blood, faeces and superficial wound of abdomen) in a patient with pancreatic carcinoma and cholangiosepsis. Biochemical, antimicrobial susceptibility and susceptibility to polyvalent phage 0-1 and r RNA restriction analysis suggested that the four strains were of clonal origin, which ultimately proved a pathogenic potential in humans.⁵ Studies have reported *E. fergusonii* associated with bacteraemia, wound infection and UTI to be susceptible to Chloramphenicol, gentamicin and resistant to ampicillin.¹ In the present study, 83% of the isolates were susceptible to amikacin followed by cephoperazone sulbactam combination (79%) and gatifloxacin (73%). Susceptibility to cefotaxime, ciprofloxacin and ampicillin was 53 and 33% respectively. Gentamicin and choramphenicol were proved to the least effective drugs against *E. fergusonii*. To the best of our knowledge *E.*

fergusonii has not been reported earlier from this part of the world.

References

1. Farmer JJ 3rd, Fanning GR, Davis BR, O' Hara CM, Riddle C, Hickman-Brenner FW *et al.* *Escherichia fergusonii* and *Enterobacter taylorae*, two new species of *Enterobacteriaceae* isolated from clinical specimens. *J Clin Microbiol* 1985;**21**:77-81.
2. Freney J, Gavini F, Ploton C, Leclerc H, Fleurtte J. Isolation of *E. fergusonii* from a patient with septicemia in France. *Eur J Clin Microbiol Infect Dis* 1987;**6**:78.
3. The *Enterobacteriaceae* - In color Atlas and Textbook of diagnostic Microbiology, 5th edn. Koneman EW, Allen SD, Janda WM, Schreckenberger PC, Winn Jr. WC Editors. Philadelphia: JB Lippincott Company; 1997. p. 171-252.
4. Altwegg M, Bockemuhl J. *Escherichia* and *Shigella* In Topley and Wilson's Microbiology and Microbiol Infections 9th edn. Balows A, Duerden BI Editors. London:Arnold; 1988. p. 935-67.
5. Funkle G, Hany A Altwegg M. Isolation of *E. fergusonii* from four different sites in a patient with pancreatic carcinoma and cholangiosepsis. *J Clin Microbiol* 1993;**31**:2201-03.

*A Mahapatra, S Mahapatra, A Mahapatra
Department of Microbiology,
MKCG Medical College, Berhampur – 760 004,
Orissa, India.

*Corresponding author (email: <meetasoka@yahoo.co.in>)

Received: 10-09-2004

Accepted: 07-10-2004