

CHANGING PATTERN OF BIO AND SEROTYPES OF VIBRIO CHOLERAE 01 IN RURAL BANGLADESH

Pages with reference to book, From 57 To 57

Sir

Till 1962 classical cholera had been prevailing in India and Bangladesh. El Tor cholera which began to spread from Indonesia in a pandemic form from 1961 entered India in 1964 and eliminated the classical biotype in 1966¹⁻². However, in Bangladesh a few El Tor strains were first detected in Chittagong in 1963 and in Dhaka in 1964, and then disappeared in 1966 but were seen again in 1968³⁻⁴. Ultimately El Tor biotype completely replaced the classical biotype in 1973⁵. In urban areas this change may be due to migration of people from El Tor endemic areas.. To see whether this change had also occurred in rural areas we analysed the bio and serotypes of cholera patients admitted from 1966 to 1985 at the Matlab Hospital, the rural treatment centre of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). This Centre treats 10,000 — 12,000 diarrhoeal patients a year of which 12-14% have cultured confirmed cholera⁶.

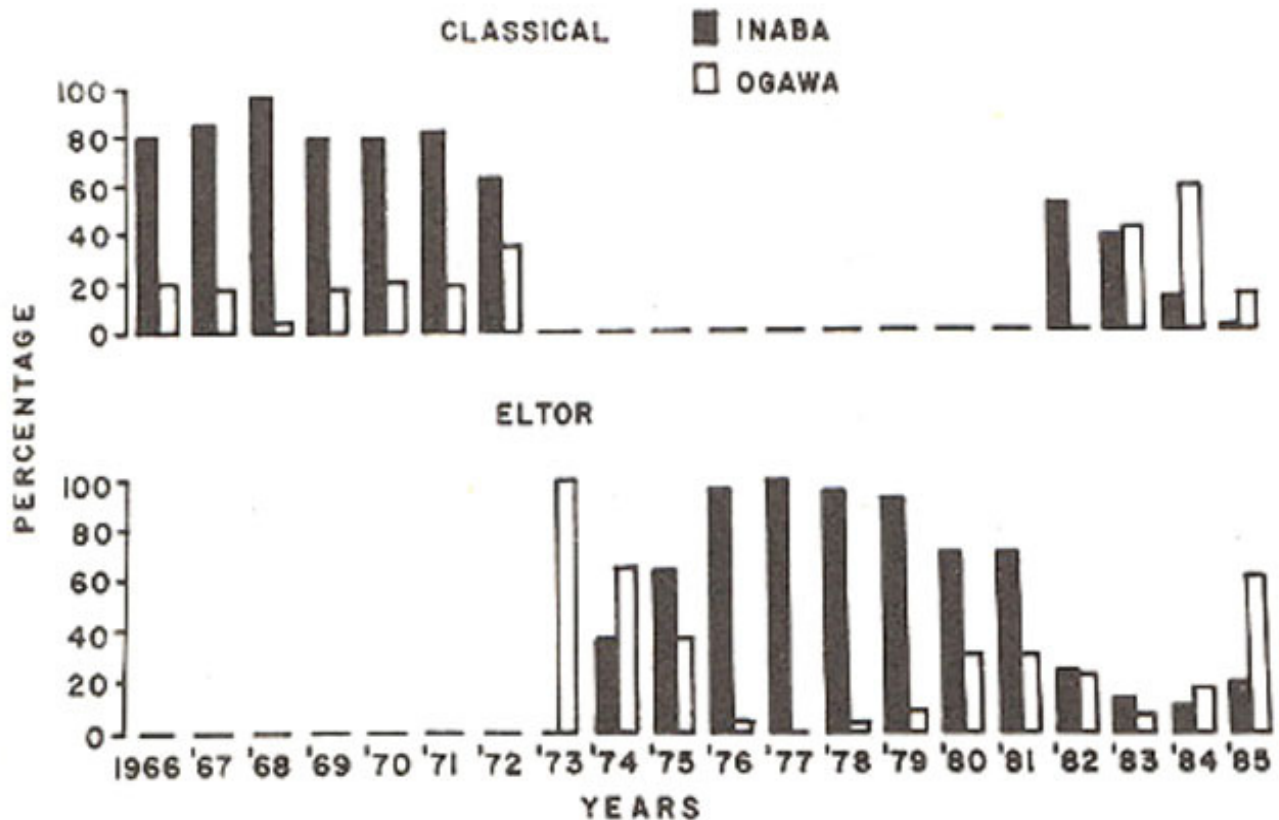


Figure. Percentage distribution of cholera patients by sero- and bio-types admitted at Matlab.

The figure which displays the percentage of each bio-serotype isolated among all *V. cholerae* O1 isolated that year shows that the classical biotype, predominantly Inaba serotype caused all cholera until, 1972. In 1973 El Tor replaced the classical biotype. Again in 1982 the classical biotype displaced the El Tor as the main epidemic strain in Bangladesh⁷. The shift from classical to El Tor and again return of classical still remain a mystery. Presently a majority of our cholera patients are infected with El Tor Ogawa. In the same villages within our surveillance area, one or both of the bio and serotypes of *v. cholerae* O1 may be present at different times. Why and how these changes occur require further research, particularly on body immunity, environmental and ecological factors which might influence these changes.

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