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# Study on retail fish markets: Possible occurrence and transmission of emerging pathogen from faecal indicators

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## Abstract

**Aim:** Most of the Indian consumers *hitherto invogue* prefer to procure the fish in retail markets despite of its poor unhygienic condition. Hence, multiyear environmental study was carried out to scrutinize the hygienic status by faecal indicator estimation in retail markets of Navi Mumbai region.

**Methodology:** In total, 159 marine fish were collected and analysed for estimation of aerobic plate count and faecal indicator bacteria viz., *E. coli*, faecal streptococci and sulphite reducing clostridia.

**Results:** Aerobic plate counts of all fish were within the limit; but the level of *E. coli* was higher in retail fish i.e., 22.4%. The average level of *E. coli*, faecal streptococci and sulphite reducing clostridia were 14, 31, 15 cfu g<sup>-1</sup>, respectively. Higher ratio was observed between the faecal streptococci and *E. coli* i.e., 1: 0.45.

**Interpretation:** Fish in retail markets harbour noteworthy number of faecal indicator bacteria which indicates considerable number of faecal contamination and poor hygienic status of the retail market. Repeated use of same water for washing fish may be reason for the elevated level of contamination. So, cleaning of fish with potable water may reduce contamination. In addition, these retail markets need to be monitored by the controlling authority at regular intervals with stringent control policy in order to provide safe seafood.

