MOLECULAR CHARACTERIZATION OF VEROTOXIGENIC *Escherichia coli* IN SAMPLES OF FRESCAL CHEESE

(CARACTERIZAÇÃO MOLECULAR DE Escherichia coli VEROTOXIGÊNICAS EM AMOSTRAS DE QUEIJO TIPO FRESCAL)

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Escherichia coli is an important pathogen, which is often involved in cases of food poisoning in humans. Among the various types of manufactured cheese, Minas Frescal has wide commercial acceptance due to its affordable price (BARROS et al., 2004). Most often, it is commercialized in common plastic packaging without vacuum. The cheese samples were plated on EMB-Levine agar and incubated at 37°C for 24 hours. The DNA extraction from strains of *E. coli* isolates was performed by thermal method. Bacterial DNA amplification was performed in a reaction with a final volume of 25µL. The amplified products were visualized by agarose gel exposure to ultraviolet light. Frescal cheese samples were collected from 12 shops; the samples were processed on the same day and further processed after seven days, totaling 24 samples and 120 isolates of *Escherichia coli*. Four strains were genetically characterized as VTEC, identified as 1 stx1 and 3 stx2, showing a prevalence of 3.33% (4/120) of the pathogen. All samples identified as VTEC were those that were stored in the refrigerator for seven days. These results are similar to those found by Pigatto et al. (2009) who also detected different VTEC strains in cheese after a few days of refrigerated storage. Paneto et al. (2007) investigated the occurrence of VTEC in cheese made from unpasteurized milk, in Midwest Brazil, and reported a prevalence of 6.0%. Unlike the research conducted by Okura (2010) in white cheese, which did not detect Shiga toxin-producing *E. coli* strains (VTEC) in any cheese analyzed. The results confirm that hygienic and sanitary measures should be adopted throughout the process, from milking, processing and distribution to conservation under refrigeration, which does not inhibit the growth of these pathogens.

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