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Microbial assessment of panipuri –A popular street food of India and its comparison with homemade food

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ABSTRACT

Detection of pathogenic bacteria in food helps in controlling food borne infections, this is important from view of health point. While estimating the level of bacterial population in food allows us to assess the shelf-life of food and its mode of storage. This is important from economic point of view as spoilage of food in food processing industries results in great economic loss. Numerous factors contribute to load of microbes in food and food products. Bacteriological quality of raw materials, preparation environment and subsequent storage environment, significantly influence the bacteriological quality of finished products. The microbial tests on food may be quantitative to detect total number of organisms or qualitative to identify certain kinds of organisms. The number of Gram⁺ and Gram⁻ bacteria were more in vended panipuri as compared to home made. The bulk of food borne illness is associated with microbiological contamination of foods. This study is of quantitative detection of microorganisms in panipuri.

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Key words : Vendor's food, Home made food, Hygienic practices

INTRODUCTION

Panipuri is a popular street food and it is crowned as king of evening snack. This snack consists of three separate items *i.e.* pani, puri and masala. Samples of panipuri were collected from four different food zones of Rajkot city and their microbial assessment was carried out and was compared with homemade panipuri. The assessment was done in terms of total microbial load present per sample and presence of enteric group of organisms (Goyle, 1994). As it is popular in Gujarat, so attempts were carried out for necessary awareness amongst the consumers and necessary remedial actions to prevent the same during its preparation and serving can be suggested (Tamhane, 1978).

The food processing and its distribution should strictly follow the microbial standards devised by government agencies of the country. Moreover, it should be ascertained by these agencies from time to time that foods, commercially available meet the standards as devised by these agencies. These tests are concerned with sanitary aspects of food *i.e.* fitness and especially healthfulness of

consumption.

These types of studies are chiefly interested with quality control tests for their raw materials and ingredients and line samples during handling and processing as vigilance on these foods and warning for possible troubles. They ascertain whether such food meet the bacteriological standards (if such standards exist), the keeping quality of food is acceptable and to ensure no harmful microbes or their products which are injurious to human health are allowed to exist in the finished product. Now-a-days a phenomenal increase has been observed in the availability and consumption of vendor's food. This has necessitated the need for such type of studies.

MATERIALS AND METHODS

The food items were collected from different food zones of the city. These samples were collected and packed in sterile plastic containers. Thereafter, these samples were individually homogenized in the mixer and packed immediately in the containers. These containers were stored at -34⁰ C in the freezer. Homemade food