S. salivarius ssp salivarius: Toxicity Studies of BIO 5 strain.

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S. salivarius ssp salivarius, inhabitant of the mouth, attracted interest for use in bacterial tonsillitis prevention, due to the fact that, some strains have ability to produce bacteriocins against S. pyogenes, the tonsilitis agent.

Studies are carried out introducing this microorganism in the mouth, using a yogurt formulation as a vehicle.

To carry out the colonization of the mouth, analysis are needed to prove absence of toxicity in the strain used.

This study evaluated a possible toxicity in BIO 5 strains of S. salivarius. It was orally administered, repeatedly, in rodents (rat albinos "Wistar"). The animals tested were observed for 28 consecutive days to verify the possible toxic effects. This study is part of a set of safety and toxicity experiments in animals, designed to assess safety of use of the tested product.

Clinical, eye and behavioral observations were made over the period of animal treatment with different doses of the test product, for 28 consecutive days. Blood / plasma samples were collected for additional tests including: complete hematology, serum, biochemistry tests, electrolytes and urine analysis.

Tests fulfilled their purpose, to evidence toxic effects on animals, administering orally the test product with BIO5 strain. No deaths were observed in males and females in any dosage (1.0, 2.0 or 4.0 ml / kg). Neither hematological nor pathological changes were observed in serum biochemical among groups.

The results allow us to state that the test product (BIO 5 strain of S. salivarius) did not induce evident toxic effects.