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The Outcome of Bacteria by Addition of Microorganism

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A B S T R A C T

Abstract- The study was undertaken to evaluate the outcome of bacteria by addition of microorganism in diet bacteria are a type of living organism which can improve the health of gastrointestinal and oral health the study was undertaken to calculate the influence of diet alteration on gastrointestinal and oral microflora with the form of curd in the diet addition of probiotics

Materials and Methods: sample for study we selected 15 children 10 in the experimental group who were given curd containing microorganism in their dire daily 5 children in the control group who were contraindicated food containing microorganisms, all children followed throughout a year, in saliva sample pre and post-analysis done in both active and control group caries score where recorded, evaluated use chi-square and the person with correlation software

Results: IT observed that after Indian curd consumption. A significant downfall in salivary S. mutans levels was estimated after probiotics yoghurt ingestion in addition to a reduction in the plaque S. mutans, 83% sample showed a decrease and 12% showed an increase in S. mutans count (P = 0.74), whereas 63% showed an increase and 13% decrease in Lactobacilli count (P = 0.002) after 1 -a year

Conclusions: 'Our findings recommend that daily use of probiotics with Indian curd may help to decrease the levels of S. mutans in the saliva children. IT Promote food rather than medicine

Keywords*:* Probiotics, Dental defect, Microorganism

1. Introduction

There is now an focus on strategies as minimal/non-invasive control. of dental caries involves The management of the disease Considering the use of probiotics is one of those plans. . Ingestion of probiotics in any type, such as in food substances (cheese, yoghurt, fermented milk, fruit juice or chewing gum) or as available in tablets and capsules, improved management of periodontitis, abridged halitosis and. Hence, this study was carried out to access the influence of probiotics in the form of curd, oral Candida infections provoked a health gaining effect on oral tissues like decrease the incidence of dental caries Materials and Methods The study was double-blinded and randomized of 15 children (8–15 years in mixed/permanent dentition). selection criteria were the: patients who had oral hygiene good. The children told to chewing gums not use, candies, report immediately any medications that they have to use advised children to use a daily brush with fluoride toothpaste twice a day. . Free from any form of mucosal or dental defect and Caries were included in the present study, out of which 15 were Engaged as an experimental group who were given curd containing probiotics bacteria approximately 200 (1 bowl) in their daily morning diet and 5 as a control group who were not containing probiotics food throughout 1-year. The curd was procured commercially from the same manufacturer by the researcher was given to the experimental group. The counts of S. Mutans and Lactobacilli in the saliva of these subjects were determined twice by using Dent cult SM Strip Mutans and Dent cult Lactobacilli Strip (Orion Diagnostic, Espoo, Finland). To estimate S.mutans, children were instructed to swallow excess saliva and then the rough surface of the round-tipped strip was pressed against the saliva remaining on the tongue. The strips were then placed in a manufacturing supply of the selective culture broth which was then labelled and upright position incubated at 37°C for 48 h. The cap was opened one-quarter of a turn to allow the growth of the organisms as per the instructions given by the manufacturer (Figure 1). After incubation, the presence of S. Mutans was identifying as light-blue to dark-blue raised colonies on the inoculated area on

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the strip. Tight labelled placed in an incubator 4 days at 37°C. The existence of Lactobacillus after incubation was evidenced by white to transparent colonies on the modified Ragusa agar surface. The results were assessed as specified by the manufacturer's guidelines as Class 0: 103 CFU/ml, Class 1: 104 CFU/ml, Class 2: 105 CFU/ml, and Class 3: 106 CFU/ml (Figure 4). After 1-year, the saliva samples again collected from two groups as All the data thus accumulated were statistically analyzed using Chi-square test and Person Correlation on SPSS software version.

2. Results

The semi-quantitative analysis of *Streptococcus* count

Figure 1: Dent cult SM Strip mutans kit and procedure for sample collection.

Figure 2: dark-blue, colonies on the surface of the S.mutans

Figure 3:t for sample Lactobacilli kit procedure

Under Class 0, I, II and III at the initial intervention of 0month showed 2 (13%), nil, 10 (67%) and 3 11 (73%), respectively. During the 1-year of follow-up, *Streptococcus* decreased in 12(86%) children, increased in 2 (8%), remain unchanged in 11(5%) children and Lactobacillus increased in 11 (65%) children, decreased in 2(7%), remain unchanged in 3 (23%) children in the experimental group (Table 1). P-value was not significant with P = 0.832 for a decrease in S. mutans . Whereas in the control group, within the 1 year of follow-up, *Streptococcus* decreased in 2 (40%) children, increased in 1 (20%) and remain unchanged in 2 (40%) and Lactobacillus decreased in 2 (40%) children, increased in 1 (20%) and remain unchanged in 2 (40%). P-value was insignificant in control group with P = 0.32 for S. mutans and P = 0.789 for Lactobacillus. Caries scores remain unchanged in 14 out of 15 children and were increased in 1 child in the experimental group with insignificant Pearson correlation (r) = 0.960 and significant P = 0.000. . In the experimental group, caries score shifted in 1 subject from 0 to 1 in which S. mutans count was increased from Classic to Classic throughout 1-year. In the control group caries score shifted in 1 subject from 0 to 1

3. Discussion

Class	**Number(%) of children**			
	At the initial intervention		**After 1-year**	
	S. mutans	***Lactobacillus***	***S. mutans***	***Lactobacillus***
0	-	2 (13)	2 (13)	-
I	-	-	7 (47)	3 (20)
	5 (33)	10 (67)	5 (33)	1 (7)
III	10 (57)	3 (21)	2 (7)	12 (74)
S. mutans: Streptococcus mutans				

Bacteria are microbial cultures or living microorganisms which upon administration in required quantity promote and boost health benefits. . These bacteria should belong to the original flora so can resist gastric secretion and survive in Intestinal movement.

***S. mutans* count at 0 month in active group**		**Shifting of counts after 12 months of follow-up**			
Class	**Number of children**	**Number of children**			
		Class 0	**Class I**	**Class II**	**Class III**
0	-	-	-	-	-
I	-	-	-	-	-
II	5	1	1	2	1
III	10	1	5	4	-
P value	0.83				

***Lactobacilli* count at initial intervention inactive group**		**Shifting of counts after 1 year of follow up**			
Class	**Number of children**	**Number of children**			
		Class 0	**Class I**	**Class II**	**Class III**
0	2	-	2	-	-
I	-	-	-	-	-
II	10	-	1	1	8
III	3	-	-	-	3
P value	0.002				

In India, the occurrence of dental caries in children to be reported to be 87%. . For research to be successful in India it has to be directed towards cost-effectiveness and easy availability of products for health.8 The subjects selected in this prospective study First, this is the period during which new teeth are erupting and surfaces colonized by bacteria. Any measure directed towards prevention against early colonization might be beneficial in the along-term for the prevention of dental disease. and other constituents may also safeguard tooth surfaces and inhibit the attachment of dental pathogens.15 Standard homemade yoghurt refers to those made with Lactobacillus bulgaricus and Streptococcus thermophilus. . Earlier studies have demonstrated a beneficial effect of probiotics lozenges, chewing gums and medical devices on oral health.

4. Conclusion

We regularly visited parents and teachers of the study subjects on the regular basis, there could be chances of error due to long monitoring and follow-up period. After taking probiotics for 1 year in the field of oral healths. mutan decreases and lactobacillus increases. However, although the results not good may be due to the small sample size but the study a pathfinder for a new concept of food supplements in place of medicines.

REFERENCES

[1] Annual Session and Exposition. Education, Research, journal

[2] Hawrelak JA, Myers SP. The causes of intestinal dysbiosis: a review. Altern Med Rev. 2004;9:180–97. [PubMed] [Google Scholar]

[3] Metchnikoff E. London: William Heinemann; 1907. The prolongation of life:

[4] Probiotics in food. London, howklandAgriculture Organization; 2003

[5] Indian Council of Medical Research Task Force; Co-coordinating Unit ICMR; Co-coordinating Unit DBT. I I