G32 AS GUM MASSAGE IN 700 CASES OF BLEEDING GUM AND LOSS OF STIPPLING
(A Group Study with cooperation of the local Family Physicians)

By

RADHAKRISHNAN A. N.

INTRODUCTION:

Gingival diseases are quite rampant in India with its inception at early childhood and its severity increasing with age. Thus the periodontal disease has a high prevalence rate, as much as 100 per cent beyond 40 years of age. Both the sexes are equally affected, Because of its widespread nature, its omnipresence in all age groups and the serious consequence of loss of teeth, it is necessary to treat this condition at the earliest.

CURRENT TREATMENT:

Treatment of periodontal disease lies in the elimination of the local causative factors and in the correction of systemic factors, if any local factors like tartar are removed by procedures like scaling and occlusal corrections are made where necessary. However, in many cases, even after these measures, a fairly fragile, oedematous and smooth gingiva is left behind. In other words, 'Stippling', the normal, healthy, orange peel appearance of the gingiva, is not regained. As long as stippling is not fully regained, the danger of periodontitis exists.

Several drugs like tannic acid, and steroid ointments, are being tried for this purpose, but the results are far from satisfactory. This fact prompted the author to try some agent which would do some good not only by acting locally on the gums, but would also help to regain the stippling that is lost.

SELECTION OF G32:

G32 (ALARSIN), which is claimed to be useful as gum massage, as a rinse and gargle, and recommended as a dentifrice to maintain oral hygiene, was selected for clinical trial. Though this is an Ayurvedic product, it was taken up for study without any prejudice and with an open mind.

EACH TABLET OF G32 CONTAINS:

Mimisaps elongi	80 mg
Calcium carbonate	75 mg
Acacia catechu	40 mg
Myrtus caryophyllus	20 mg
Areca catechu	20 mg
Alumen	20 mg
Quercus infectoria	20 mg
Elettaria cardamomum	10 mg
Silicate of Alumina & Iron Oxide	10 mg
Carum carui	10 mg
Rubia cordifolia	10 mg
Sarthuga ligulata	10 mg
Embelia ribes	10 mg
Ficus religiosa	10 mg
Os sapiae	10 mg
Bartaria prionitis	10 mg
Cis namomum cassia	5 mg
Pipar nigrum	5 mg
Sodium carbonate impura	5 mg
Alpania chinensis	5 mg
Pipar long	5 mg
Camphora officinarum	5 mg
Uncaria gambier	5 mg

It is claimed that this combination, which is meant for local use for gum massage, and as a gargle and rinse, acts synergistically and the product has astringent, anti-septic, anti-inflammatory, anodyne, styptic, deodorant, aromatic, cooling and healing properties.

MATERIALS & METHODS:

Over 700 cases, both male and female, of the age groups 10-50 years, were involved in this trial. The author had the fullest cooperation from the local Family Physicians, with whom the whole project was discussed before starting the clinical trial. It was necessary to take the local Family Physicians into confidence, because most of the cases were being referred to this Dental Clinic by them and they should know that a clinical trial was made on their patients. Also, when the patient goes back to his Family Physician, the latter would know whether his patient had relief of the dental, gingival trouble.

Only those patients of Chronic Gingivitis (with or without periodontitis), of not less than six months' duration, were taken up for study. The criteria was that there was bleeding from gums and the loss of stippling was appreciable. All the patients were subjected to general health check-up and those patients with systemic diseases affecting gingiva were excluded from the study. This trial was done on those patients that attended my dental clinic during 1977. The trial period was of three months. However, 104 patients could not be followed, and so the final analysis was done only on 596 patients.

LINE OF TREATMENT:

All the cases taken up for clinical study received oral prophylaxis in the form of sub-gingival or supra-gingival scaling, except 37 cases that required open curettage and 3 cases that required gingivectomy. All the patients were advised local application and massage with G32, except those cases that received curettage or gingivectomy, who were advised only a gentle application for some weeks.

USE OF G32:

The patients were advised to crush (a slight pressure was sufficient) G32 tablets, two tablets at a time, for application over the gums and gently massage for ten minutes, and then gargle the mouth with warm water, twice in a day, once in the morning and once in the night, preferably at bed time. This was continued for three months which was fixed as the trial period. The patient was asked to come once a month for a check-up. During this period, no other tooth paste, tooth powder or any other cleaning material was allowed. The assessment of results was made after three months use of G32 by the patient.

AGE GROUPS:

Out of 700 patients taken for study: 38.0% were in the age Group of 10-25 years, 53.0% in the Age Group of 26-40 years, and 9.0% in the Age Group of 41-50 years. There were 370 males and 330 females. The details of the Age Groups and Sex are given in Table No. I

Table I

AGE GROUPS

No.	Age Group	Males		Females		Total	%
I	10-25 Years	136		130		266	38.0%
II	26-40 Years	199		172		371	53.0%
III	41-50 Years	35		28		63	9.0%
	TOTAL	370	(52.9%)	330	(47.1%)	700	100.0%

DROP-OUT CASES AND FOLLOW-UP CASES:

For one reason or another, 55 males and 49 females, a total of 104 patients could not be followed-up. On the whole, 85.1% could be followed-up and 14.9% could not be followed-up. Considering the large number of patients under study, the follow-up of 85.1% of cases was deemed as satisfactory. The details of drop-out cases and follow-up cases, under Age Groups and Sex, are given in Table No. II.

G32 AS GUM MASSAGE IN 700 CASES:

Table II

DROP-OUT AND FOLLOW-UP CASES

No.	Age Groups	Males	Females	Total	Total
		not followed	**not followed**	**not followed**	**followed**
I	10-25 Years	20	19	39	227
II	26-40 Years	30	26	56	315
III	41- 50 Years	5	4	9	54
	TOTAL	55	79	104	596
	Percentage	**7.9%**	**7.0%**	**14.9%**	**85.1%**

ASSESSMENT OF RESULTS:

In view of the busy out-patient work of the author, he could not examine the patients more than once a month. This was also felt as sufficient. The results were assessed after three months' use of G32. The fragility of the gums was evaluated clinically by its tendency to bleed, if any, on application of finger pressure. The clinical appearance of the gingiva as to stippling, was noted by observing it after wiping the gingiva with dry, sterile cotton.

The depth of the pocket before and after treatment could not be noted due to shortage of time as already mentioned. However, the clinical improvement of the bleeding gums and the regaining of stippling and also the subjective relief as expressed by the patient himself, formed the criteria for the assessment of the results of G32.

RESULTS: BLEEDING GUMS

Among 596 cases that could be followed for the full trial period of three months, with G32 use, bleeding from gums stopped completely in 80.0% of cases, it was much less in 10.4% of cases and there was practically no response in 9.6%. It was also observed, that bleeding completely stopped in 95.2% of the Age Group I, in 74.3% of Age Group II and in 50.0% of the Age Group III. This indicated that response to treatment was the highest in the younger age groups, and went on decreasing in older age groups. The details are given in Table No. III.

Table III

RESULTS : BLEEDING GUMS

No.	Age Group	No. of Cases	Bleeding Stopped (GOOD)	%	Bleeding much less (FAIR)	%	Bleeding not stopped (POOR)	%
I	10-25 Years	227	216	95.2%	11.4	8%	-	-
II	26-40 Years	315	234	74.3%	41	13.0%	40	12.7%
III	41-50 Years	54	27	50.0%	10	18.5%	17	31.5%
	TOTAL	596	477	80.0%	62	**10.4%**	57	**9.6%**

RESULTS: STIPPLING REGAINED

Among the total of 596 cases, Stippling, the healthy, orange peel appearance of the gingiva, was fully regained in 74.3%, of cases, and it was not fully regained in 25.7% of cases. It was also observed that Stippling was fully regained in 88.1% of the Age Group I, in 69.5% of the Age Group II and in 44.4% of the Age Group III. This indicated that response to treatment was the highest in Younger Age Groups and went on decreasing in Older Age Groups. The details are given in Table No. IV.

Table IV

RESULTS : STIPPLING REGAINED

No.	Age Group	No. of Cases	Stippling Regained (GOOD)	%	Stippling not regained (POOR)	%
I	10-25 Years	227	200	88.1%	27	11.9%
II	26-40 Years	315	219	69.5%	96	30.5%
III	41-50 Years	54	24	44.4%	30	55.6%
	TOTAL	596	443	74.3%	153	**25.7%**

OVERALL RESPONSE:

Taking together the criteria of stoppage of bleeding from gums and the regaining of stippling, it was observed that the response to G32 treatment was Good in 77.2%, Fair in 5.2% and Poor in 17.6%. The details are given in Table No. V

Table V

OVER-ALL RESPONSE

Factor	No. of cases	Good	%	Fair	%	Poor	%
Bleeding Gums	596	477	80.0%	62	10.4%	57	9.6%
Stippling Regained	596	443	74.3%	-	-	153	25.7%
Mean	596	460	77.2%	31	5.2%	105	17.6%

CHART NO. I

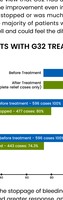
Chart No. I shows the results of G32 treatment. Bleeding stopped in 477 cases (80.0%) and Stippling was regained in 443 cases (74.3%). The details are clearly shown in the Chart No. I by bars.

Discussion:

Clinical evaluation showed that the majority of patients had complete relief from Bleeding Gums and they had regained Stippling, with the use of G32; there was no oedema in the gums.

Subjectively, the majority of patients expressed the view that G32 had done immense good to them. They had a feeling of 'freshness' in the mouth. They could feel the improvement even in 2-4 days use of G32. They also expressed the view that bleeding from gums had completely stopped or was much less and many said that their gums had become tougher after using G32. On the whole the majority of patients were satisfied and happy after using G32. They were chronic patients and knew their trouble well and could feel the difference after the use of G32.

CHART 1: RESULTS WITH G32 TREATMENT



It was observed that there was relationship between the stoppage of bleeding from gums and the regaining of stippling. It was also observed that the younger persons showed greater response, and the response went on decreasing as the age went on increasing. However, the difference in sex had no influence on the response to treatment.

CONCLUSIONS:

G32 was found very useful in the management of chronic gingival conditions, of which the commonest are Bleeding Gums and Loss of Stippling and the presence of oedema.

No side effects, local or systemic, were observed during the trial, and as such G32 is a safe drug.

What was most impressive with the use of G32 was its property to restore Stippling, the healthy orange peel appearance of the gingiva. This is what probably any Dental Surgeon would like to achieve as the ultimate in treating gingival diseases.

SUMMARY:

700 cases of Chronic Gingivitis, where bleeding from gums, oedema and loss of stippling were conspicuous, were advised G32 local application and massage for three months. Results were analysed in those 596 cases that could be followed-up. It was found that by the local use of G32, in the majority of patients (77.2%) bleeding from gums stopped, there was no oedema, and stippling was regained. No local or systemic side effects were observed. The patients also expressed their satisfaction at the improvement, and they also felt that their gums had become tougher.

ACKNOWLEDGEMENTS:

I am thankful to the local Family Physicians for the active cooperation and encouragement they had given me during the clinical trial and in the preparation of this paper, and in particular to Doctors B. Doddabasavaiah, MBBS, C. B. Reddy, MBBS, C. Bhaskar Rao, MBBS, Radhakrishna, MBBS, Rudra Gowda, MBBS, Shivram Shetty, MBBS, and Anand Hegde, LMP. I am also thankful to ALARSIN Pharmaceuticals, Bombay 400 023 for their cooperation in conducting this Group study.

REFERENCES:

1. Krishnarjuna Rao, C. & Ramaswamy, M. (1978): G-32 massage in gingival inflammation—Cur. Med. Pract. Vol. 22, No. 6, pp. 281-285, June, 1978.

2. Rajasekhar, A. (1978) : Therapeutic usefulness of G-32 in various periodontal conditions : A clinical Study : 32nd Indian Dental Conf. Guntur, 28-30 Jan. 1978.

3. Shah Kirti P. (1977) : G-32 in acute and chronic Gingivitis associated with painful teeth : Current Med. Pract. Vol. 21, pp. 65-68 Feb. 1977