

Therapeutic Evaluation of Unani Coded Drug UNIM- 855 in Tooth Hypersensitivity

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Abstract

The therapeutic efficacy of Unani coded drug UNIM- 855 was evaluated in 30 patients of tooth hypersensitivity of either sex ranging in age from 20 to 60 years. 2 gm of the test drug as fine powder was advised to be rubbed over the surface of the gums and teeth by the index finger and left for five minutes then rinse with fresh water. Scoring for tooth hypersensitivity was done before treatment and at weekly intervals after initiating the treatment. Treatment was given initially for 15 days and extended up to 60 days if required. Out of 30 cases, 12 got 100% response, 10 got 71-99% response, 2 got 51-70% response, 4 got 31-50% response and 2 got no response. Thus the Unani coded drug UNIM- 855 is shown to be quite effective in reducing the tooth hypersensitivity.

Keywords: Tooth hypersensitivity, Unani Medicine, UNIM-855

Introduction

It is not unusual for patients to complain of root surface sensitivity, which is annoying sharp pain usually associated with gingival recession and exposed root surface. Several theories have been advanced to explain the unusual sensitivity and response of such exposed dentin to a stimulus or irritation. The most accepted theory is the hydrodynamic theory, which postulates that the pain results from indirect innervations caused by dentinal fluid movement predentin. Dentinal hypersensitivity is a particular problem in patients immediately after periodontal surgery. A number of treatments have been used to provide relief, such as topical fluorides, oxalates solutions, dentin bonding agents and desensitizing tooth pastes. But on prolong use of these drugs may have its own side effects as well as limited efficacy while Unani drugs do not have such side effects, so it is worthwhile to test the Unani drugs on scientific parameters (Bal and Kundalgurkhe, 1999; Curro, 1990; Orchardson and Collins, 1987).

Dental hypersensitivity is not elaborately discussed in Unani classics (Razi, 1998). It is described in Al-Mualijat Buqratia as "this is gaseous disease which induces an acute condition on dental surrounding resulting accumulation of gases and pain" (Tabri, 1997); particularly this condition is associated with tinismus appearance in the nerves. A number of Unani drugs are reported to be effective in dental hypersensitivity by many eminent Unani physicians (Khan, 1902). Hence a clinical study was planned to evaluate the therapeutic efficacy of Unani formulation in the patients of tooth hypersensitivity.

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Material and Methods

Type of trial: An open-label clinical study.

Subject selection

Patients attending the dental OPD of CRIUM, Lucknow for treatment of tooth hypersensitivity were screened for inclusion and exclusion criteria. They have been informed about the nature and objective of the trial before enrolling them.

Treatment schedule

Drug: UNIM-855

Dosage and mode of administration

2 g. coded drug was given to the patient and advised to apply over the sensitive teeth with gentle rubbing with index finger for five minutes in the morning and at bed time daily and left for five minutes, to be later rinsed off with fresh water.

Follow up method and interval during treatment

The patients were instructed to visit every week for assessment of tooth hypersensitivity and recording was done accordingly.

Criteria of assessment

Tooth hypersensitivity was observed by subjective scale from 0-100. Initially tooth hypersensitivity was considered as 100%. After subsequent visit, reduction of tooth hypersensitivity was recorded in terms of percentage according to patient's spontaneous report on pro forma at interval of a week.

Determination of percent improvement in each case was categorized in following groups:

1. 100% improvement
2. 71-99% improvement
3. 51-70% improvement
4. 31-50% improvement
5. <30% improvement
6. 0% improvement

Grading of the disease

Grade I: Subject responds to air stimulus but does not request discontinuation of stimulus.

Grade II: Subject responds to air stimulus and requests discontinuation or moves from stimulus.

Grade III: Subject responds to air stimulus, considers stimulus to be painful, and requests discontinuation of the stimulus.

Data recording: Data recording was done on separate case sheet for each subject as base line and every follow up i.e. is every week up to two months.

Observations

The drug UNIM 855 was tried in 30 patients of tooth hypersensitivity of either sex in age group of 20 to 60 years.

The overall response was noted as 100% in 12 cases, 71-99% in 10 cases, 51-70% in 2 cases, 31-50% in 4 cases and no response was in 2 cases. (Table 1)

Highest number (13 cases) of 100% response was seen in the age group of 20 to 30 years, 5 cases in the age group of 31-40 years, 8 cases in the age group 41-50 years and 4 cases were in the age group of 50-60 years (Table 2).

Out of 30 cases 57% were male and 43% were female. Excellent response (100%) was noted in 2 cases of female and 10 cases of male (Table 3).

Table 1: Overall response

100%	71-99%	51-70%	31-50%	Below 30%	No response	Total (%)
12(40.00)	10(33.33)	2(6.66)	4(13.33)	—	2(6.66)	30(100.0)

Table 2: Age-wise response

Age in year	Response						Total (%)
	100%	71-99%	51-70%	31-50%	Below 30%	No response	
20-30	5	3	1	2	-	2	13(43.33)
31-40	3	—	1	1	-	-	5(16.66)
41-50	3	5	-	-	-	-	8(26.66)
51-60	1	2	-	1	-	-	4(13.33)
Total (%)	12(40.00)	10(33.33)	2(6.66)	4(13.33)	-	2(6.66)	30(100.00)

Table 3: Sex-wise response

Sex	Response						Total (%)
	100%	71-99%	51-70%	31-50%	Below 30%	No response	
Male	10	5	-	1	-	1	17(56.66)
Female	2	5	2	3	-	1	13(43.33)
Total (%)	12(40.00)	10(33.33)	2(6.66)	4(13.33)	-	2(6.66)	30(100.00)

According to temperament wise response 21 cases were balghami temperament out of which 5 cases got (100%) response, 9 cases got 71-99%, 2 cases got 51-70%, 4 cases got 31-50% and 1 case got no response. 6 cases were damvi temperament, out of which 5 cases got 100% response and 1 cases got no response. 2 cases were safravi temperament which got 100% response. 1 case was Saudavi temperament which got 71-99% response (Table 4).

As per grade wise response, maximum number (7 cases) of 100% response was seen in grade I (Table 5).

Table 4: Temperament-wise response

Temperament	Response						Total (%)
	100%	71-99%	51-70%	31-50%	Below 30%	No response	
Balghami	5	9	2	4	-	1	21(70.00)
Damvi	5	-	-	-	-	1	6(20.00)
Safravi	2	-	-	-	-	-	2(6.66)
Saudavi	-	1	-	-	-	-	1(3.33)
Total (%)	12(40.00)	10(33.33)	2(6.66)	4(13.33)	-	2(6.66)	30(100.00)

Table 5: Grade-wise response

Grade of disease	Response						Total (%)
	100%	71-99%	51-70%	31-50%	Below 30%	No response	
Grade-I	7	3	1	2	-	1	9(30.00)
Grade- II	3	3	-	1	-	-	7(23.33)
Grade-III	2	4	1	2	-	1	14(46.66)
Total (%)	12(40.00)	10(33.33)	2(6.66)	4(13.33)	-	2(6.-66)	30(100.00)

In terms of duration of treatment, the maximum response i.e. 23 (76.67%) cases were noted in 16 to 30 days of treatment out of which 11 cases got 100% response, 7 cases got 71-99%, 1 case got 51-70%, 3 cases got 31-50% and 1 case got no response. Minimum response that is 1 case (3.33%) was noted in up to 15 days of (Table 6).

According to chronicity, the maximum number of cases i.e. 26(86.66%) were in less than 1 year chronicity out of which 11 cases got 100% response, 7 cases got 71-99%, 2 cases got 51-70%, 4 cases got 31-50% and no response was observed in 2 cases (Table 7).

Dietary habit wise response showed that 100% response observed equally in vegetarian and non-vegetarian (Table 8).

Table 9 indicates that out of 30 subjects 22 subjects were gutka/tobacco chewer and 8 subjects were gutka/tobacco nonchewer which shows that gutka/tobaccochewing has important role in developing tooth hypersensitivity. In chewing group, 100% and 71-99% response was noted in 8 cases while 2cases

Table 6: Duration of treatment-wise response

Duration of treatment in days	Response						Total (%)
	100%	71-99%	51-70%	31-50%	Below 30%	No response	
Up to 15 days	-	-	1	-	-	-	1(3.33)
16-30	11	7	1	3	-	1	23(76.67)
31-45	1	3	-	1	-	1	6(20.00)
Total (%)	12(40.00)	10(33.33)	2(6.66)	4(13.33)	-	2(6.66)	30(100.00)

Table-7: Chronicity-wise response

Chronicity (In days)	Response						Total (%)
	100%	71-99%	51-70%	31-50%	Below 30%	No response	
Less than 1 year	11	7	2	4	-	2	26(86.66)
01-03	-	2	-	-	-	-	2(6.66)
04-06	1	1	-	-	-	-	2(6.66)
Total (%)	12(40.00)	10(33.33)	2(6.66)	4(13.33)	-	2(6.66)	30(100.00)

Table 8: Dietary habit-wise response

Dietary habit	Response						Total (%)
	100%	71-99%	51-70%	31-50%	Below 30%	No response	
Vegetarian	6	4	2	4	-	1	17(56.66)
Non Vegetarian	6	6	-	-	-	1	13(43.33)
Total (%)	12(40.00)	10(33.33)	2(6.66)	4(13.33)	-	2(6.66)	30(100.00)

Table 9: Oral hygiene habit-wise response

Oral hygiene habit	Response						Total (%)
	100%	71-99%	51-70%	31-50%	Below 30%	No response	
Gutka/ Tobacco chewer	8	8	2	3	-	1	22(73.33)
Gutka/ Tobacco non-chewer	4	2	-	1	-	1	08(26.67)
Total (%)	12(40.00)	10(33.33)	2(6.66)	4(13.33)	-	2(6.66)	30(100.00)

got 51-70%, 3 cases got 31-50% and 1 case got no response. In nonchewing group, 100% response was observed in 4 cases while 2 cases got 71-90%, 1 case got 31-50% and 1 case got no response.

Results and Discussion

30 patients suffering from tooth hypersensitivity were treated with Unani coded drug UNIM-855 for a period of 15 to 60 days. Out of 30 cases 100% response was noted in 12 cases, 71-99% in 10 cases, 51-70% in 2 cases, 31-50% in 4 cases and no response noticed in 2 cases. So we may conclude that Unani coded drug UNIM-855 is quite effective in reducing tooth hypersensitivity.

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