

A NEW METHOD FOR PREPARATION OF KAJJALI

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ABSTRACT: *The article describe a new method for preparing Kajjali.*

INTRODUCTION

In Ayurvedic system of treatment mercurials perform a vital role. The ancient authors described Rasa-Chikitsa as the best treatment. Therefore without *Rasa* (mercury) Ayurvedic system of medicine cannot be fully successful. Though mercury cannot be used in its usual status, it should be processed with mainly sulphur or and other metals. The highly toxic effect of mercury vanishes when it is processed with sulphur. Hence *Kajjali* prepared by mercury and sulphur assume a vital role in Ayurveda. The definition of *Kajjali* is as follows:

“*Kajjali* is the black powder obtained from rubbing of mercury with sulphur, metals and other things without the addition of any liquid substance.”

In general for preparation of *Kajjali*, mercury and sulphur are taken in a *Khalwa* and rubbed slowly till the mixture becomes black fine powder. Normally it takes 40 to 60 hours in 4 to 10 days for preparation of a good quality of *Kajjali*. It has a high labour cost.

Therefore to save time and money it was decided to prepare *Kajjali* by a new and easy method.

MATERIALS AND METHODS

In various Ayurvedic texts the ratio of mercury and sulphur for *Kajjali* varies from 1: ½ and above like 1:1, 1:2, 1:3, 1:4, 1:6, etc. From the above ratio four types of *Kajjali* in a ratio of mercury and sulphur were prepared as follows :-

Group I	= 1 : 1	Group II	= 1 : 2
Group III	= 1 : 3	Group IV	= 1 : 6

And in every group two varieties of *Kajjali* were prepared by using two methods, like-

1st : Old Traditional Method
2nd : New Grinding – rubbing method.

(A) PREPARATION :

Group – I : 1st : By Old Traditional Method :

250 gms of pure mercury and 250 gms of pure sulphur were gently rubbed in a *khalwa* for a period of 30 hours resulting in good quality of *kajjali* weighing 483 gms.

2nd : By New Grinding – rubbing method:

At first 250 gms of pure sulphur were taken in a *khalwa* and rubbed for 15 minutes, then 250 gms of mercury were added and again

rubbed for 45 minutes which produced a coarse faint black powder. Then this powder was poured in a clean dry grinding jar of a mixer-grinded and was grounded for 30 to 60 seconds with an interval of 10 to 15 minutes repeating 4 times. After all a fine black powder was obtained and again the powder was taken in the *khalwa* and rubbed for 12 hours. Finally the *kajjali* weighing 480 gms was obtained having its all properties described in alchemical texts.

(B) Precautions

- (i) In a mixer-grinder not more than 500 gms of materials should be taken once. If more *Kajjali* is to be prepared, the procedure may be repeated.
- (ii) Grinder should not be operated for more than 60 secs. in an interval of 10 to 15 minutes, otherwise sulphur will melt.
- (iii) If sulphur melts, then cool it outside the jar and again grind it.

Other *kajjalis* of Group-II, Group-III and Group-IV, were prepared whose details are given in the Table No. 1 to 3.

RESULTS

After comparing both the procedures it was found that:

- (I) The new grinding – rubbing method saved 57 % to 67% of time from old traditional method. So the labour charge is also reduced by at least 50%.
- (II) The physical loss in grinding – rubbing method than the old traditional method is upto 0 to .94% which is negligible. Hence the quantity of final product obtained from both the methods are approximately same.
- (III) The chemical analysis of both the *kajjali* has no remarkable difference.

CONCLUSION:

The new method is very easy and time saving than the old traditional rubbing method.

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Table No.1
Time taken by old Traditional Method

Sl. No.	Group of <i>Kajjali</i>	Total rubbing Time	Total days required	Weight of <i>Kajjali</i>
1	G-I	30 hrs	6	483 gms
2	G-II	36 hrs	7	742 gms
3	G-III	43 hrs	9	975 gms.
4	G-IV	60 hrs	12	1720 gms

Table No.2
Time taken by the New Method

Sl. No.	Group of <i>Kajjali</i>	1 st rubbing time	Grinding Time	2 nd rubbing Time	Total time
1	G-I	1 hr	1 hr	11 hrs.	13 hrs.
2	G-II	1 hr	1 hr	13 hrs.	15 hrs.
3	G-III	1 hr	1 hr	15 hrs.	17 hrs.
4	G-IV	2 hrs.	1.5 hrs.	19.5 hrs	23 hrs.

Table No.3

Group of <i>Kajjali</i>	Time Required		Time Saved	% of Time Saved	Days Required		Days Saved	% of days saved
	O.T.M	N.G.M			O.T.M	N.G.M		
G-I	30 hrs.	11 hrs.	17 hrs.	57%	6	3	3	50%
G-II	36 hrs.	13 hrs.	23 hrs.	64%	7	3	4	57%
G-III	43 hrs.	15 hrs.	28 hrs.	65%	9	4	5	55%
G-IV	60 hrs.	20 hrs.	40 hrs.	67%	12	5	7	58%

Table No.4

Group of <i>Kajjali</i>	<i>Kajjali in gms</i>		Differences	Loss by N.G.M.
	O.T.M.	N.G.M		
G-I	483	480	3 gms	.62%
G-II	742	735	7 gms	.94%
G-III	975	975	00	00
G-IV	1720	1715	5 gms	.30%

Table No.5

Group of <i>Kajjali</i>	Old Traditional Method		New Grinding – rubbing Method	
	Mercury	Sulphur	Mercury	Sulphur
G-I	240.6% W/W	243.6% W/W	238.2% W/W	242.6% W/W
G-II	242%.2% W/W	499.2% W/W	238.7% W/W	496.3% W/W
G-III	235.4% W/W	740.75% W/W	234.6% W/W	741.2% W/W
G-IV	239.5% W/W	1480.67% W/W	236.4% W/W	1478.6% W/W

ABBREVIATIONS USED

G-I	= <i>Kajjali</i> prepared by equal part of Hg & S	hrs	= Hour
G-II	= <i>Kajjali</i> prepared by 1 part of Hg & 2 parts of S	O.T.M.	= Old Traditional Method
G-III	= <i>Kajjali</i> prepared by 1 part of Hg & 3 parts of S	N.G.M.	= New Grinding rubbing Method
G-IV	= <i>Kajjali</i> prepared by 1 part of Hg & 6 parts of S		

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