

# “AN OBSERVATIONAL STUDY OF TAILA BINDU PAREEKSHA IN HEALTHY INDIVIDUALS w.s.r. DEHA PRAKRUTHI”

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## ABSTRACT

*Tailabindupariksha, a method of urine examination for prognosis of diseases has been described in of Ayurvedic texts of medieval period. In this test oil is dropped on urine surface and on basis of shape, direction and spread time of oil drop prognosis of disease is predicted. Details of observations of this test in patients have been mentioned in texts but reference range in normal individuals has not been mentioned. Present study was carried out for outlining the findings of this test in normal healthy individuals so that we can set reference range. For this standardized procedure of Tailabindupariksha was followed and observations were recorded in form of Images. Following this standardized procedure Tailabindupariksha was performed in 100 apparently healthy individuals. In all cases shape and direction was found in accordance with textual descriptions of easily curable diseases. Mean spread time was 36.9 sec and split time was 110.15 sec.*

*In Classics there was no mentioning of relationship between Prakruthi and Result of TailaBinduPareeksha, and in this study we have made a conclusion that there is no relationship between Prakuthi and TailaBinduPareeksha and also we can't trace out Doshic predominance in Mutra through tailabindupareeksha*

**KEYWORDS:** TAILA BINDU PAREEKSHA, MUTRA. PRAKRUTHI, DOSHIC PREDOMINANCE, SPLIT TIME, SPREAD TIME

## INTRODUCTION

*The above statement signifies the importance of diagnosis by examining the disease and thereafter to select the appropriate therapy. The diagnosis of disease in ancient time is mainly based on clinical features supported by clinical examination. The laboratory investigations specially the chemical investigations were not performed rather than it was confined to the physical examinations of body fluids and the excreta. For the diagnosis of various aspects of disease and diseased person, several methods have been described in Ayurvedic texts. These can be broadly classified into Roga and Rogi pariksha. Several methods of Roga Rogi Pariksha like Astasthan Pariksha, Dashavidha Pariksha, Dvadashavidha Pariksha are described in Ayurvedic classics. Examination based on laboratory investigations is rather a late development pertaining to medieval period. Mutra Pariksha and Purisha Pariksha were the main laboratory investigative tools in the past and were included under Astasthan Pariksha.*

*Under Mutra Pariksha, both physical and chemical examinations of urine are described. Physical examinations which include the changes in colour, odour, consistency etc. are described pertaining to various diseases. Chemical examinations of urine to detect abnormal constituents are described through various inferential modalities. Moreover, a unique method of Taila Bindu Pariksha was developed during the medieval period to ascertain the prognosis rather than the diagnosis of diseases. Mutra pariksha is one which proves to be an important aid in diagnosis as well as assessing the prognosis of a disease.*

*Prognosis is an important aspect of diagnosis and treatment. From ancient time predicting prognosis has always been a big challenge to the medical profession. Patients want to have access to accurate prognostic information<sup>1,2</sup>. Knowing prognosis plays an important role in end of-life decisions and it helps to determine whether it makes more sense to attempt certain treatments or to withhold them. Improved prognostication may facilitate better patient care, giving patients the ability to make better informed choices about treatment<sup>3</sup>. On the other hand, it may help patients to make better use of the time remaining to them, and may give them the opportunity to make appropriate preparations for their own impending death<sup>4</sup>.*

*If we look into Ayurvedic texts then we will find that art of prognosis was well developed in ancient times. A separate section in the form of Arishta Lakshana (sign and symptoms related to prognosis) is devoted in many Ayurvedic texts. In 16<sup>th</sup> century Taila Bindu Pariksha, a urine test for knowing prognosis was popular. In this test, urine is taken in a glass vessel over which an oil drop is placed and characteristic of oil spread (rate, shape and direction of spread) is noted down. These parameters are indicative of prognosis of diseases. Both Taila Bindu Pariksha and Arishta Lakshana can be used to assess prognosis in any disease as they are not disease specific. They were popular prognostic tools in the past but now-a-days they are not specifically used, so there is need to re-establish their results so that they can be used in future.*

## METHODOLOGY

### SOURCE OF DATA

#### LITERARY SOURCE

Literary sources will be collected from the different classical text books in Ayurveda, previous studies conducted on similar subject, information available on internet, Journal will also be incorporated in the study.

#### OBSERVATIONAL SOURCE

A minimum of 100 Healthy individuals will be selected from students of AAMC Tumkur

#### STUDY DURATION –

Study will be carried out until completion of one schedule of Taila bindu pareeksha.

#### STUDY DESIGN --

Observational study

#### INCLUSION CRITERIA

100 Healthy individuals are selected of age between 18- 25 years irrespective of sex, cast, and religion.

#### EXCLUSION CRITERIA

Individuals under medication, individuals having any disorders, pregnancy and lactating women, age below 18 and above 25 are excluded.

#### ASSESSMENT CRITERIA

Taila bindu pariksha, a method of urine examination for prognosis of diseases has been described in of Ayurvedic texts of medieval period. In this test oil is dropped on urine surface and on basis of shape, direction and spread time of oil drop prognosis of disease is predicted. Details of observations of this test in Healthy individuals have been mentioned in texts but in normal individuals has not been mentioned. Present study was carried out for outlining the findings of this test in normal healthy individuals. An observational chart is been maintained by recording assessment parameters such as Froth, Colour, Reaction, Shape of oil after spread, sedimentation, Direction of spread, Spread Time (Time taken by oil drop to reach its final shape) and Spilt time (time in which is oil film is splitted which is interpreted by sieving of the oil surface) was observed. Spread time and split time was noted by the help of digital clock kept near the Petri dish. Also record the turbidity, smell, and specific gravity of urine.

### Study Plan

For this study procedure standardized by Kar et al. was used.<sup>1</sup> In this standardized procedure 12 µl of sesame oil is dropped over urine (morning mid -stream sample) collected in glass petri dish of 8 inch diameter. All observations are recorded in the form of video clips. Still photographs are taken from the clips afterwards for

*the assessment of shape and direction of oil spread. Following the standardized procedure Taila bindu pariksha was performed in 30 healthy volunteers. Apparently healthy individuals of either sex between 20 to 30 yrs of age group with no drug history at least for 1 week and those having similar diet pattern in the earlier day were taken for present study.*

## **OBSERVATIONS**

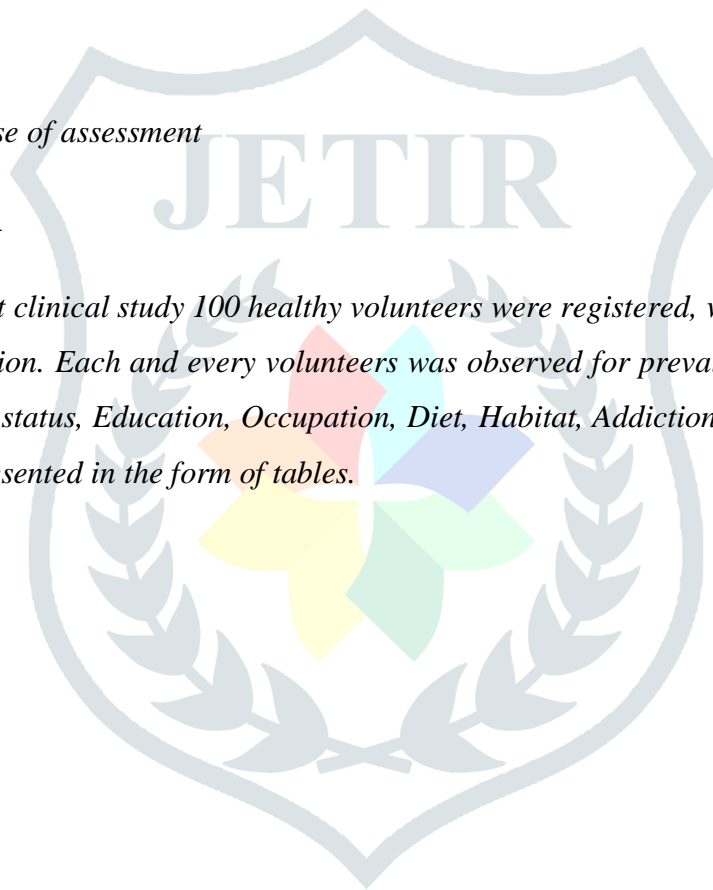
*Hundred healthy volunteers were selected from students of AAMC, Tumkur and study was carried out. Subjective and objective changes were considered for the assessment of the efficacy of the research work*

*Data were collected as follows:*

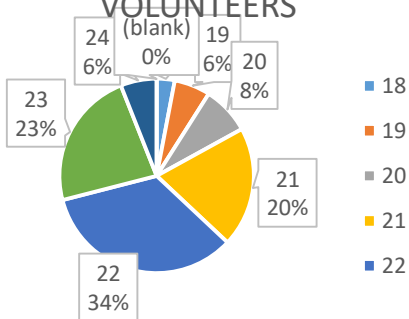
- 1. Demographic data*
- 2. Data related to disease*
- 3. Data related to response of assessment*

## **DEMOGRAPHIC DATA**

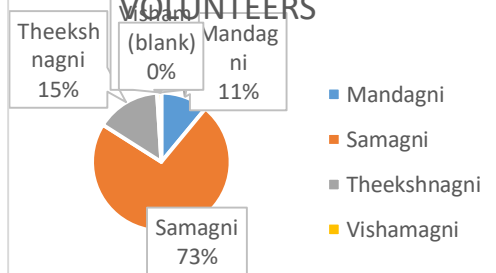
*In the present clinical study 100 healthy volunteers were registered, who is devoid of any diseases and doesn't under medication. Each and every volunteers was observed for prevalence according to Age, Sex, Religion, Socio- economic status, Education, Occupation, Diet, Habitat, Addiction, Nutrition, Prakruti, Nature of foods. All the data is presented in the form of tables.*



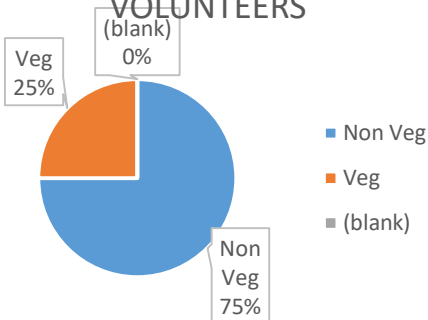
### AGE WISE DISTRIBUTION OF VOLUNTEERS



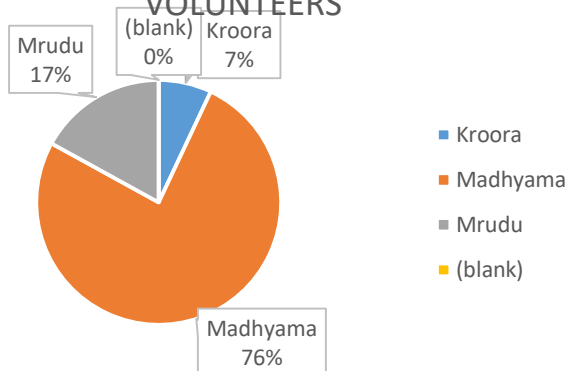
### AGNI WISE DISTRIBUTION OF VOLUNTEERS



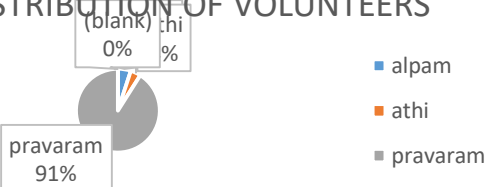
### DIET WISE DISTRIBUTION OF VOLUNTEERS



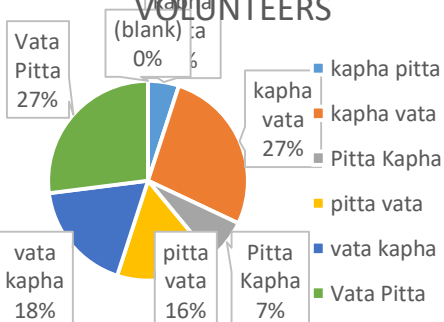
### KOSHITA WISE DISTRIBUTION OF VOLUNTEERS



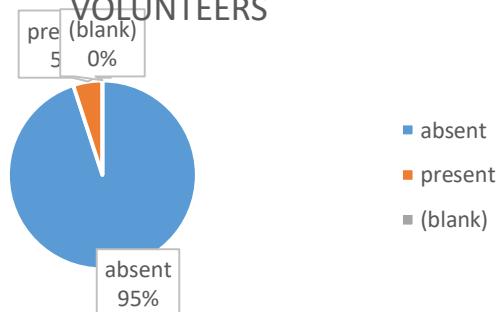
### MUTRA PRAVARTHI WISE DISTRIBUTION OF VOLUNTEERS

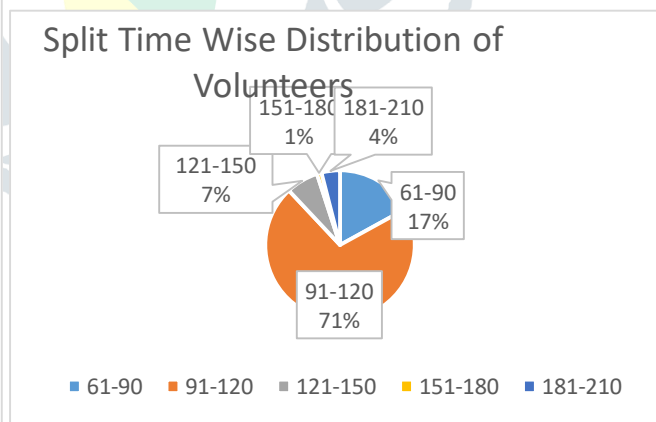
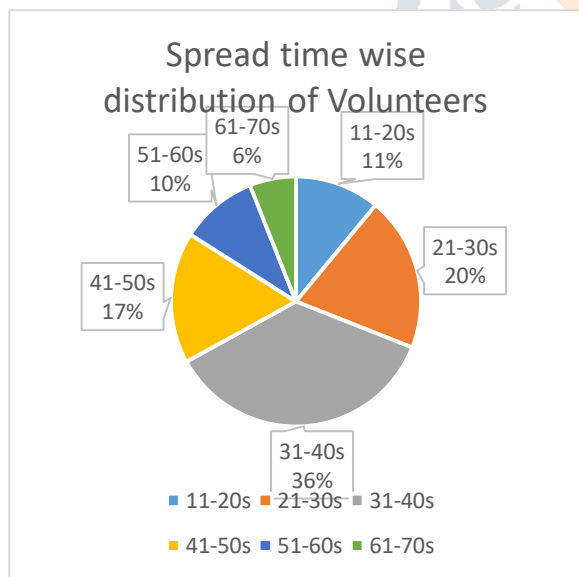
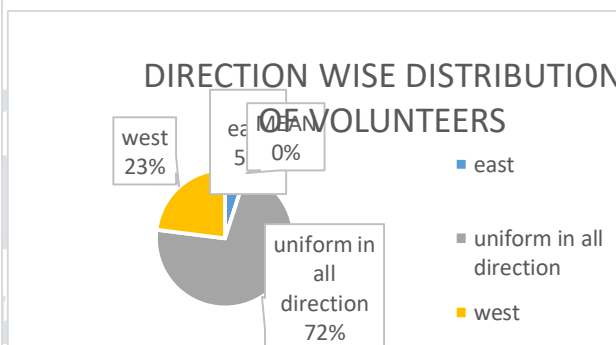
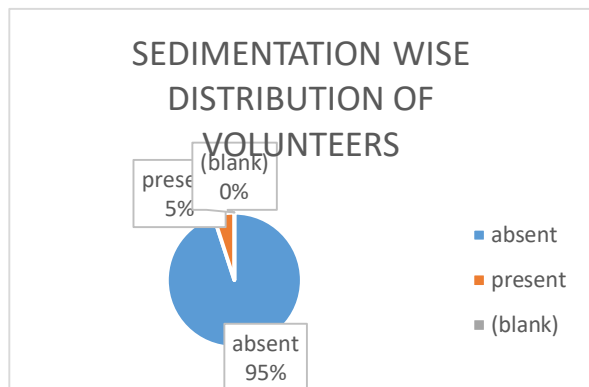
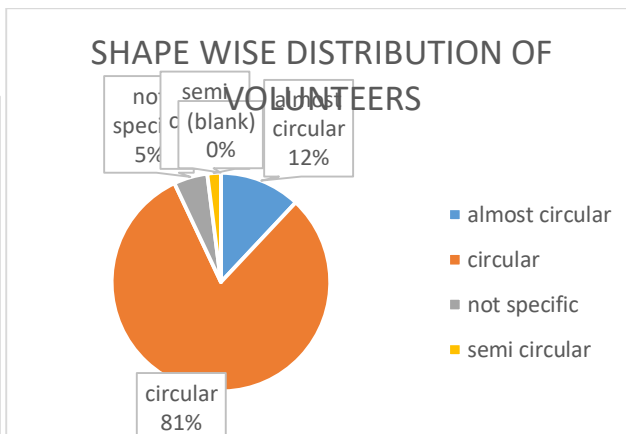
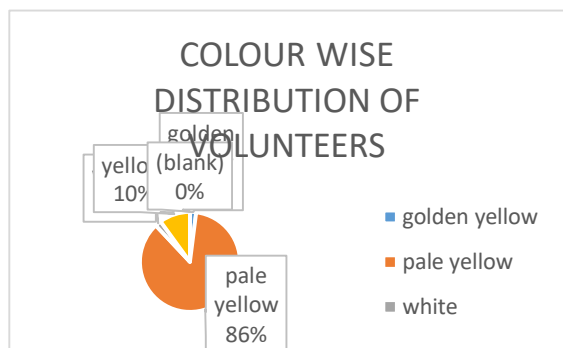


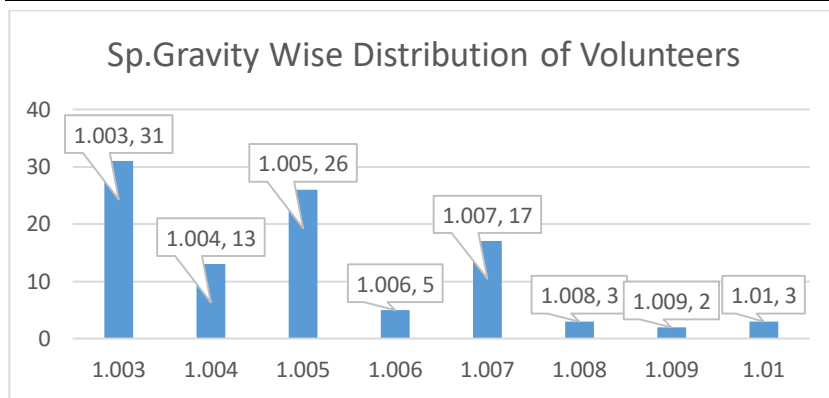
### PRAKRTHI WISE DISTRIBUTION OF VOLUNTEERS



### FORTH WISE DISTRIBUTION OF VOLUNTEERS







## DISCUSSION

### Selection of cases

The difference in constituents of urine depends upon the dietary metabolites and other minor constituents which are excreted through urine.<sup>1</sup> presuming the interference of the dietary metabolites with the behaviour of oil drop in urine, the apparently healthy volunteers who studied in the college were selected who have fixed life pattern.

### Age Incidence:

Out of the total 100 healthy volunteers, 3 of them were from the age of 18, 6 of them were from age of 19, 8 of them were from age of 20, 20 of them were from age of 21, 34 of them were from age of 22, 23 of them were from age of 23 and 6 of them were from age of 24, it is very short age difference between the volunteers since we have took only students of AAMC, Tumkur,

### Sex wise Distribution of Volunteers

Out of the total 100 healthy volunteers, Majority was females with a percentage of 73% and males were only 27%.

### Diet WISE DISTRIBUTION OF VOLUNTEERS

Out of the total 100 healthy volunteers, Majority was non vegetarian (75%) whereas 25 % was vegetarian, it is because in students non vegetarians are higher in number.

### Agni WISE DISTRIBUTION OF VOLUNTEERS

Out of the total 100 healthy volunteers, Majority was having Samagni (73%), 11% was having Mandagni, and 15% was having Theekshnagni whereas only 1 had Vishmagni.

### Koshta WISE DISTRIBUTION OF VOLUNTEERS

Out of the total 100 healthy volunteers, Majority was having MadhyamaKoshta(76%), 17% was having MruduKoshta, while only 7 % was having krooraKoshta.

### Mutra Pravarthi Wise Distribution Of Volunteers

Out of the total 100 healthy volunteers, Majority was having PravaraMutraPravarthi (91%) , 5% was having AlpaMutraPravarthi and only 4% had AthiMutraPravarthi.



**Prakruthi Wise Distribution Of Volunteers** Out of the total 100 healthy volunteers, Majority (27%) was having both Vata Pitta and KaphaVataPrakruthi, subsiding to that it was VataKaphaPrakruthi(18%), and 16% was having Pitta VataPrakruthi, while Pitta Kapha(7%) and Kapha Pitta (5%) was least among Prakruthi

### **-Forth Wise Distribution Of Volunteers**

Out of the total 100 healthy volunteers, 95 % of volunteers don't had forth in the urine while as 5% had forth.

### **Colour Wise Distribution Of Volunteers**

Out of the total 100 healthy volunteers, Majority of volunteers (86%) had Pale Yellow colour urine, 10 % had yellow colour of urine and 2% Golden yellow and White colour of urine.

### **Shape Wise Distribution Of Volunteers**

∴ Out of the total 100 healthy volunteers, Shape of urine was observed after TailabinduPareeksha, Majority (81%) had Circular Shape, While 12% had almost circular shape and 2% had Semi Circular Shape and 5% don't had any Specific shape.

### **Sedimentation Wise Distribution Of Volunteers**

Out of the total 100 healthy volunteers, Sedimentation of urine was observed after TailaBinduPareeksha, 95% of the sample don't had any sedimentation while as 5% had sedimentation.

### **-Direction Wise Distribution Of Volunteers**

Out of the total 100 healthy volunteers, Direction of spread of taila of TailaBinduPareeksha was observed, and in Observation 72% had spread uniformly in all directions, and 23% had spread in west direction while as 5% had spread to East direction

### **Turbidity Wise Distribution Of Volunteers**

∴ Out of the total 100 healthy volunteers, After TailaBinduPareeksha, Turbidity was observed and 97% of sample was clearly turbid and only 3% was cloudy

### **Smell Wise Distribution Of Volunteers**

Out of the total 100 healthy volunteers, Smell of urine was observed and 96% had Normal smell while as 4% had pungent smell.

### **Spread Time Wise Distribution Of Volunteers**

Out of the total 100 healthy volunteers, Spread Time was noted after application of TilaTaila, about 11 volunteers had Spread time in between 11-20 seconds, about 20 volunteers had Spread time in between 21-30 seconds, about 36 volunteers had Spread time in between 31-40 seconds, about 17 volunteers had Spread time in between 41-50 seconds, about 10 volunteers had Spread time in between 51-60 seconds, and about 6 volunteers had Spread time in between 61-70 seconds, Most of volunteers had spread time in a frequency between 31-40 seconds and Mean of Spread time is 36.9 seconds,

### **-Split Time Wise Distribution Of Volunteers**

Out of the total 100 healthy volunteers, Split Time was noted after application of TilaTaila, about 17 volunteers had Split time in between 61-90 seconds, about 71 volunteers had Split time in between 91-120 seconds, about 7 volunteers had Split time in between 121-150 seconds, only 1 volunteer had Split time in between 151-180 seconds, and about 4 volunteers had Split time in between 181-210 seconds. Most of volunteers had split time in class in between 91-120 and Mean of Split time is 110.15Seconds



**-Specific Gravity Wise Distribution Of Volunteers**

Out of the total 100 healthy volunteers, Specific Gravity of Urine was calculated, about 31 of them had a Specific gravity of 1.003, about 13 of them had a Specific gravity of 1.004, about 26 of them had a Specific gravity of 1.005, about 5 of them had a Specific gravity of 1.006, about 17 of them had a Specific gravity of 1.007, about 3 of them had a Specific gravity of 1.008, about 2 of them had a Specific gravity of 1.009, and 3 of them had a Specific gravity of 1.01, Most of them had specific gravity of 1.003 and mean of specific gravity is 1.0049

**SUMMARY & CONCLUSION**

- *It can be concluded from this study that normal range of shape and direction of oil drop in Tailabindupariksha when performed in healthy individuals are same that of observations mentioned in texts for good prognosis.*
- *There is no valid evidence of Doshic Predominance in Mutra*
- *There is no significant evidence of colour change, even some among them had it may be as a result of previous day activities*
- *Spread time of oil drop should be within 1 minute*
- *Split time below 4 minute can be considered as range for healthy by above mentioned procedure.*
- *A preliminary outline of observations of Tailabindupariksha has been set by this study but before giving concluding remarks that there is need of performing test in large number of cases*

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