



A Study on the “Bishadata Lakshani” Of Charaka and Susruta in Modern Light

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ABSTRACT

“BISHA” as defined in Charaka and Susruta Samhita is the substance that produces harmful effect on the body of the exposed . The word basically indicates a substance but in some references it can also be interpreted as non substantial factor that can cause untoward effect on the person exposed . Bisha can be synonymised as poison mentioned in the modern classics .

“BISHADATA” is the term used to indicate an individual who is involved in giving poison . In broad sense , a Bishadata is a person involved in an act of causing harm to other with homicidal intent . Here it seems that , a Bishadata can easily be considered as an individual involved in any crime .

In ancient times poisons were randomly used by the enemies to take revenge as a good number of such substances were easily available , they were potent enough to cause expected harm, was difficult to diagnose and treat and identification of the poison giver is also not easy .

The ancient scientists and scholars were vigilant and aware about the effects of poisons , quickness and severity of their action , chance of using poisons by the enemies against the kings and VIPs . They gave their effort to develop some criteria to investigate the crime “giving poison” . Such criteria are mentioned by Charaka first briefly in Charaka Samhita which were elaborated by Susruta in Susruta Samhita.

An analysis of the signs of a poison giver (an individual involved in crime) in modern light comparing with the renowned modern crime investigation experts seems to have importance and significance .

Key words – Bisha , modern classics , Bishadata , homicidal intent , importance and significance .

I. INTRODUCTION

Poisons are the common , potent and harmful substances . They , due to their natural character of causing harm , manifest sufferings even immediately after coming to the contact . The effect may be from mild signs and symptoms to end of life (death) . Poisoning is the condition that may be the state of exposure with the intention of suicidal or homicidal desire . The incidence of accidental exposure is also not negligible . On survival of the person trying to commit suicide is limited to appropriate treatment , care and counselling to change the psychological status to prevent future attempt . In case of accidental exposures treatment should be followed by education of the individual about the necessary cautions to avoid use of poisons due to carelessness . Homicidal use of poison has more serious concern . In this condition it becomes the responsibility of the state (administration) to investigate by analysing the entire incidence . Identification of the person / persons involved in the process of using poison with homicidal intent , pulling them to the court , trial the case in court and punish according to law are considered as the moral responsibilities of the administration .

In ancient times availability of natural poisons were there . There were abundance of vegetable poisons specially . Hence the use was also not uncommon . Some poisons like Oleander (Karaveera) was commonly used with suicidal intent . Exposure to the leaves of Cannabis (Bhanga) , seeds of Dhatura were also common mistaking them as eatables (accidental poisoning) .

The most dangerous and serious use of poison was “using by the enemies to cause harm / death of the opposition whom it was impossible to win in open war” . In most of the times very strong and potent poison that can kill a person with a small



dose within a short period was selected, was given to the targeted individual through a faithful servant and the aim was fulfilled.

Considering the threat of the lives of the kings opting of utmost precaution by the security personals was considered as of top priority. The founder eminent scholars of Ayurveda, Charaka and Susruta, were probably the ones of the field of health to throw light on this field. Susruta elaborately mentions that, the royal kitchen should be supervised by a toxicologist (Vishavaidya) and he should be assisted with a group of expert workers with prescribed qualities. Even he elaborately discussed about the technique of investigation and examination of a suspect involved in the act of giving poison to the king/VIP. Both Charaka and Susruta discuss the matter under the heading “**BISHADATA LAKSHANANI**” which literally indicates “**the character of poison giver**”. But analysis of the mentioned characters in the reference reflects that, any individual when involves in a crime may show these characters which can point towards a suspect but to confirm his involvement further investigation is must.

The classical “**BISHADATA LAKSHANANI**” can be considered as the base of “**CRIME INVESTIGATION PROCEDURE**” the analysis of which is felt to be one of the needs of the hour.

AIMS AND OBJECTIVES –

This literary study is aimed to –

- (1) Study Charaka Samhita and Susruta Samhita searching the informations regarding crime investigation procedure.
- (2) Collect the related informations
- (3) Study and analysis of the collected informations
- (4) Give effort to discuss the informations collected in the light of modern crime investigation and interrogation procedures
- (5) Arrange the observations and analysis in the form of a scientific article
- (6) Send the article to a reputed indexed journal for publication

II. MATERIALS AND METHODS

This is a literary study conducted by using the following materials and the below mentioned methods –

- (1) Charaka and Susruta Samhita were studied at the Central Library of Sri Sri College of Ayurvedic and Research Hospital, Sri Sri University, Cuttack, Odisha, India
- (2) Help of internet sources was taken to gather knowledge about the modern methods of crime investigation

(3) The informations available in the two Samhitas on Bishadatalakshana were noted

(4) The statements on the topic by the 2 scholars were tried to evaluate with the help of the concepts of some eminent researchers and scholars of the modern field of crime investigation

(5) A discussion was made giving the effort to justify and compare the Ayurvedic concept mentioned under the heading “**Bishadatalakshana**” and “**identification of a liar in relation to crime detection**”

(6) Ultimately adding a summary, conclusion and references the article was sent for publication to a peer reviewed reputed journal

III. OBSERVATION AND RESULT

The following were the observations and result of the study –

(1) **Charaka Samhita** – The great scholar of Ayurveda Charaka mentions the following guidelines to suspect an individual to be involved in a crime [1]

(i) **Atyarthasankita (showing to be in great fear)** – The person will be seemed to be in great fear and agony to face the situation

(ii) **Bahuvak (talks more than expected)** – When any question is asked the person tries to answer with unexpectedly long explanation

(iii) **Alpavak (talks too less than expected)** – When a question is asked the person responds with very short answer

(iv) **Bigatalaxmi (change of appearance and loss of lustre)** – The appearance of the person changes and loses the lustre, sometimes the face becomes pale, sometimes flushed etc.

(v) **Prakritibikara (change of character of the person without any explainable reason)** – The behaviour of the person takes a markable and abnormal change.

(2) **Susruta Samhita** – Susruta, the father of Indian Surgery, gives the following clues to be considered as the suspecting character of a person involved in a crime –

(a) A person who is expert in understanding the expressions of behaviour (**INGITAGYA MANUSHYA**) can suspect one to be involved in a crime by noting the 3 categories of behavioural changes like – (1) **Vakvikriti** (change in speech), (2) **Chestavikriti** (change in behaviour) and (3) **Mukhavikriti** (change in appearance) [2]

(b) The details of the markable behaviours are [3]–

(i) **Na dadatiuttarang** (does not give answer to the questions asked) – This is an effort of the suspect to escape.



(ii) **Bibakshanmohameti** (seems to be confused when goes to speak) – The individual tries to show that he/she is innocent and in great fear. This is again an effort to avoid the investigation by drawing sympathy.

(iii) **Aparthabhashate** (speaks the meaningless things) - This can be considered as an effort of showing oneself as innocent and stupid.

(iv) **Bahu bhashate** (speaks more than expectation) - When a question is asked the respondent tries to give long explanation of the answer. This can be considered as an effort to prove himself innocent and having no concern with the situation.

(v) **Sankirnabhashate** (speaks the irrelevant things) - This is also another effort of the suspected individual to mislead the investigator. By speaking irrelevant things he/she tries to show some mental problem / deficiency with him.

(vi) **Muhdhavatbhashate** (speaks like a stupid) - When question is asked the person behaves like a stupid. This is another effort to escape from the questions / investigation.

(vii) **Sphotayatiangulih** (makes sound by breaking the fingers) - This is a sign of innocence and thinking anything deep. The suspect tries to escape from the situation by proving innocence.

(viii) **Bhumimakasmatbilikhet** (digs or writes something on the ground) - This is also a behaviour that indicates non involvement of a person in an act. It is also a technique used by a person to show himself to be in deep thinking.

(ix) **Haset** (laughs without reason). The person tries to prove that, since he/she has no involvement in the crime has no fear. So through the laughter the individual tries to impress the investigators and make to trust to not to get any involvement in the crime.

(x) **Bepathuhjayate** (the person trembles) - Trembling is a sign of fear. When an innocent person faces an unwanted situation there is trembling. But it may be a technique of the person to escape examination of the investigators in relation to crime.

(xi) **Trastahanyonyamabhikshate** (looks in different directions without reason) - The suspect, when faces the investigation, to prove innocence, looks in different directions purposelessly. He can not fix the eyes and can not see towards the investigating officer.

(xii) **Kshamata** (falling of the voice) - Loss of the tone of voice. When a person faces an unexpected situation feels dryness of mouth which results in loss of the speed and tone of the voice. This may

happen in the innocent ones but also may occur in the involved ones due to fear to get caught.

(xiii) **Bibarnabaktrata** (change of colour of the face, paleness) - Usually an individual's appearance becomes pale due to fear. One may not be able to face a situation due to lack of knowledge and experience that leads to a state of change of appearance to paleness or flushing. When one speaks untruth then also there is a fear of being caught that may give rise to same situation and appearance.

(xiv) **Nakhaihkinchitchinatti** (tears something, like grass etc. with the nails) - This usually suggests the person's state of thinking and puzzle. But it may also be a pretention of a wicked person to escape further examination in relation to a crime.

(xv) **Dinata** (pathetic appearance) - One may develop a pathetic look in facing an untoward situation. The face reflects a puzzling appearance, sweating etc. A person, during the effort to escape from being caught, may also show the same facial changes.

(xvi) **Karena cha shiroruhan** (pulls the hairs without any reason) – This behaviour indicates a person to be at a state of puzzle. One who, without any previous experience, faces a critical situation pulls the hairs without any cause. The same situation happens when a person involved in a crime feels that he is going to be caught.

(xvii) **Niriyasuaparaihdwaraih** (wants to exit through the doors which is not for the purpose) – This effort directly indicates the person's effort to leave the place by escaping from the sight of the others (specially from the security personals).

(xviii) **Bikshate chapunahpunah** (looking again and again to the investigators) – It indicates the effort of the individual to observe the face of the security personal with the aim to draw sympathy as innocent.

(xix) **Bartatebiparitang** (the nature of the person changes without any reason) – The person shows fear, restlessness and anxiety. This may happen with an innocent individual due to fear as well as an wicked person when he/she feels to be at a state of being caught.

(xx) **Bichetana** (loss of consciousness) - The individual may lose consciousness without any reason. This may again be a sign of innocence, lack of knowledge and faith or a pretention to draw sympathy to escape from a situation.

(c) Caution is also given by Susruta to the investigating personals that, such characters may be observed in an innocent individual due to any urgent need to leave the place, or not having any



experience or idea to face such situation . Hence suspected persons basing upon the mentioned characters should be re-examined after proper consolation with sympathy [4]

(3) Concept of the modern experts involving in crime investigation –

(i) What happens to a liar ?

Increase respiratory rate and heart rate , starts sweating , mouth goes dry , voice can shake. A habitual liar may feel extreme stress (elevated levels of stress hormones Epinephrine , cortisol and norepinephrine in blood) , may struggle to live up to their own claims [5].

(ii) 5 signs of lying [6]-

- (1) Touching of face, mouth , throat
- (2) Stammering , repeating words or phrases (indicates that they are trying to think of what to say next)
- (3) Pause before answering (effort to try to keep track of what they have already said and to keep the lie going)
- (4) Looking towards the door (aimed to go out)
- (5) Cessation of blinking (aimed to avoid eye contact)

(iii) 10 signs of telling lie [7]-

- (1) A person's voice or mannerisms of speaking may change when tells a lie [8]
- (2) Non congruent gestures are movements of the body that don't match the words a person says and this is a sign of non truth teller [9]
- (3) Who , when asked to answer questions or to provide more details typically offer less than telling the truth is a liar [10]
- (4) Liars try to deceive stretch the truth with too many words [11]
- (5) Lie detection research found that Chinese participants tend to speak with a higher vocal pitch when lying [12]
- (6) People look left or right when lying [13]
- (7) Many people want to cover up a lie or hide from their reaction to it , which may be why they put their hands over their eyes or mouths when letting an untruth out . Others may even completely close their eyes when telling a lie [14]
- (8) Think about what a kid does when asked where the last cookie went . They may lick their lips , look at their nails or even shake their hands and then tell a big whopper of a lie [15]
- (9) The act of pointing at or toward something or someone else , with gestures or words may signal a surefire desire to take a focus off of an individual and place blame onto someone else [16]

(10) Perhaps the easiest way to spot a liar is to let them do it for you . Those identifying as “good liars” are more of an honest indicator than lie detector tests [17]

IV. DISCUSSION

After completion of the search, from the observations, the following discussion can be incorporated –

(1) The key of identification of an individual involved in crime can be considered as the “**signs of a liar**” as the investigating officer always makes a list of the suspects in a crime first which is followed by preliminary interrogation , detention , taking into custody , interrogation at different levels by experts , registration of the case and submission of charge sheet , submission in the court for trial and so on . In a crime scene the police usually follows the order of investigation in the steps like , cordon of the scene , detention and interrogation of the person available in the scene / neighbouring area , interrogation of the detained persons , taking into custody to the suspects , arrest of some of them after different rounds of examination , arrest , registration of case and preparation of charge sheet , production of the arrested persons in the court which is followed by trial as per the court rule . The whole work starting from detention to arrest by the police is based upon the study of the attitude , appearance , behaviour etc. of the person during the interrogation . The whole process can be considered to be governed by the observation of the behaviour of a liar .

(2) Charaka mentions the characters of a BISHADATA (person involved in crime) only in 5 words which can be considered as self explanatory. These 5 terms , if analysed, can be considered to be the key of study of character of one involved in a crime . An individual with a desire to keep the truth secret naturally suffers from great emotional tension as a result of which he develops markable change in walking , talking , appearance etc. Charaka tries to guide the crime investigators with these 5 words having wide meaning .

(3) Susruta mentions one important character of the crime investigators as “**INGITAGYA**” which means and indicates “**one who can understand the language of the facial appearance , movement of the body parts , attitude of speech etc.**” which can be considered to be agreed unanimously . It is said that , face is the mirror of the mind and it is also true that , speech , body movements etc. of a person reflects the status of the mind . A liar always remains in fear of getting exposed . Hence tries to impress the others with the help of different body



movements , facial expressions , artificially sweetened words etc. If , specially the investigating officer will be able to guess the pretentions then it will definitely be easy to identify the pretender .

(4)Elaborating the characters of the individual involved in crime Susruta summarily states 3 points as (1)Vakvikriti , (2)Chestavikriti and (3)Mukhavikriti . Furter, elaborating the 3, the scholar mentions a number of characters that can be categorized as follows –

(a)Vakvikriti –

- (i)Na dadatiuttarang(doesn't answer the questions)
- (ii)Apartha bahu sankirnabhashate(speaks misleading , excess or too less)
- (iii)Mudhavatbhashate (speaks like a stupid)

(b)Chestavikriti –

- (i)Bibakshanmohameti (seeing towards the investigator becomes unable to speak and work)
- (ii)Sphotayatianguli(makes sound by breaking the fingers)
- (iii)Bhumimakasmatbilikhet(digs and writes on the earth)
- (iv)Bepathuhjayate(starts trembling)
- (v)Trastahanyonyamabhikshate(sees towards different directions purposelessly)
- (vi)Nakhaihkinchitchinati(tears things with nails)
- (vii)Karena cha shiroruhan(pulls hairs)
- (viii)Niryiyasuaparaihdwaraih(tries to exit through the doors not for the purpose)
- (ix)Bikshate cha punahpunah(sees towards the stranger / investigating personals again and again)
- (x)Bartatebiparitang(change of behaviour without reason)
- (xi)Bichetana(faints without reason)

(c)Mukhavikriti –

- (i)Haset (smiles / laughs without cause)
- (ii)Kshamabibarnabaktrata(the face becomes pale / of abnormal colour without cause)

All the mentioned characters indicate a state of great emotional stress of the person aimed to escape / draw the sympathy / pretend to be innocent . The underlying aim of such behaviours is to keep the truth (his / her involvement in crime) unexplored .

(5)But sometimes the person showing the behaviour of a liar may actually be innocent . Even the assumption of the investigating officer may also be wrong . Paying attention to the fact Susruta advise the investigating officers to not to be sure on his decision after only single round of investigation / interrogation / observation . An individual may develop the signs and symptoms of a BISHADATA due to fear , lack of knowledge , experience of likely situations and due to weak psychology .

Hence re-examination with sympathy after consolation is stressed .

(6)When the characters of the liar is studied it becomes clear that , the contents discussed under the headings “**What happens when one tells lie**” , “**5 signs of lying**” and “**10 signs of tellinglie**” are reflecting the changes and signs – symptoms of a liar (to tell lie and continue with it is the main aim of one involved in crime) as increased respiratory and heart rate , sweating , dry mouth , shaken voice , touching of face, mouth , throat , stammering, repeating words, pause before answering , looking towards the door , cessation of blinking , noncongruent gestures , more details or too less answer of the questions , telling with unnecessary loud voice , covering of the face and eyes when speaks etc. All are some of the observations of renowned and experienced psychologists , researchers and criminal experts . All these occurs basically due to the effort of the individual to pretend to be innocent in relation to a crime .

(7)Regarding the advice of re-examination of a suspect before taking decision there is need of repeated screening by following different protocols which is supported by the laws for protection of the rights of the citizens (suspects) in force . In practice also the investigating officers follow rounds of examinations before arrest , registering a case and sending the individual to the court for trial .

V. SUMMARY

As summary of the study the following points can be stated –

- (1)Early identification of an individual involved in crime is important for crime prevention .
- (2)The terminology mentioned in the Ayurvedic classics as “**BISHADATALAKSHANANI**”, specially in relation to identification of a poison giver , can be considered as “**signs of an individualinvolved in crime**” and can be used by the investigating officers for identification of such persons .
- (3)There is close similarity between the descriptions of the signs and symptoms of a liar mentioned in the Ayurvedic classics and the experts / researchers of present time .
- (4)The Ayurvedic guidelines mentioned in Charaka and Susruta Samhita seems to have more justification , broad spectrum and applicability in detection of a person involved in crime .
- (5)Sincere , judicious observation and decision making is most important to identify the actual guilt and avoid punishing to an innocent one .



VI. CONCLUSION

To conclude it can be said that , Charaka and Susruta , the pioneers of Ayurveda , were experienced , dedicated and vigilant scholars with desire to work for human benefit . They contributed a number of principles in their Samhitas for human benefit out of which “**BISHADATALAKSHANANI**” is also of great importance and applicability . Systematic study and analysis of the concepts and principles mentioned by Charaka and Susruta have significance even in this era .

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