



RELATION OF PITTOULBANA SANNIPATAJ JWARA WITH TYPHOID FEVER.

Ayurveda

Akanksha
Chauhan*

PG Scholar, Department of Rog Nidan evam vikriti vigyan *Corresponding Author

Ruby Rani
Agarwal

Professor and H.O.D2, Department of Rog Nidan evam vikriti vigyan

ABSTRACT

Sannipataj Jwara is the complex ailment in which pathogenesis and severity of symptoms become progressed and challenging to cure. According to Acharya Madhav, symptoms of Pittoulbana Sannipataj Jwara closely resemble with Typhoid fever. We are facing an actual prospective with Typhoid fever that Antibiotic resistance and relapse. The study is needed to provide Ayurvedic interventions which will help in the prevention of further complications, its relapse and side-effects of different Antibiotics. To achieve the objective total patients of 50 having chief complaints of Pittoulbana Sannipataj Jwara were registered then, subjected to Widal Agglutination test. After analyzing the data statistically, it was found that with the increasing severity of the symptoms of Pittoulbana Sannipataj Jwara, the level of titres also increases with the advancement of the disease. Moreover, Pittoulbana Sannipataj Jwara can be co-related with Typhoid fever.

KEYWORDS

Pittoulbana Sannipataj Jwara, Typhoid fever, Widal titre

INTRODUCTION

Jwara roga is a *Rasa Pradoshaja vyadhi* in which there is a disturbance in the *Dhatvagni*¹. Abnormal functioning of *Jatharagni* gives rise to *Ama* which vitiate *Rasagni*. This produces *Samavastha* and vitiates *Rasavaha Srotas*. *Acharya Charaka* has described 13 types of *Sannipataj Jwara*. According to *Madhavkar*, the features of *Pittoulbana Sannipataj Jwara* closely resembles with Typhoid fever as described in modern medical science. Most of the *Sannipatika* conditions are described as *Krichsadhya (Dushchikitsya)* and with the chronicity, it becomes *Asadhya*. In *Pittoulbana Sannipataj Jwara*, *Pitta Dosha* is dominating with *Madhyama Bala* of *Vata Dosha* and *Hena Bala* of *Kapha Dosha*. *Bhavmishra* has termed it as *Pakal Sannipata Jwara*.

In 2010, enteric fever was ranked as the 13th most common cause of years of life lost in Southeast Asia compared to around 100th place in Western Europe and North America². It is a curable disease but sometimes, if left untreated can cause several complications like intestinal perforation later rare complications include hepatitis, pancreatitis etc. To overcome these complications some protocols are necessary to establish in *Ayurveda*. Approximately 1 to 5 patients with enteric fever become chronic, symptomless and shed *S. Typhi* in either urine or stool for > 1 year³.

The study of *Pittoulbana Sannipataj Jwara* is necessary since, there is no abundant explanation of *Pittoulbana Sannipataj Jwara* in our classics. Likewise, in *Ayurveda*, if early management is not done then, there will be involvement of further *Dhatu* which causes a disease difficult to cure. *Acharyas* have described *Laksana of Vyadhis* which will be helpful for diagnosis in the present era as different investigations employed for diagnosis are not cost-effective. Owing to the gravity of the situation, the need is felt to establish early diagnostic parameters to diagnose the *Pittoulbana Sannipataj jwara* and Typhoid fever. It has been undertaken to clinically explore the relation of *Pittoulbana Sannipataj jwara* with the widal titre. The Widal test depends on the stage of the disease and usually appears by the end of the first week⁴. It is assumed that the titre and severity of the disease increase with the progression of the disease.

AIMS AND OBJECTIVES OF THE STUDY

1. To establish the co-relation of typhoid fever with *Pittoulbana Sannipataj Jwara*.
2. To assess the *Dhatu* involvement based on widal test (in different titers).

MATERIALS AND METHODS

a) Selection of patients

Total of 50 patients with Chief complaints of *Pittoulbana Sannipata Jwara* were selected from OPD/IPD of *Rog Nidana* department, *Rishikul Campus UAU*, Haridwar then, subjected to Widal

Agglutination test. Patients with widal titre 1:80 or more were registered for the present study.

The study has been approved by the Institutional Ethics Committee (UAU/RC/IEC/2018-19/04) and is registered to CTRI (CTRI/ 2019/ 02/023823).

b) **Type of study-** Clinical Observational study.

c) INCLUSION CRITERIA-

- Patients having chief complaints of *Pittoulbana Sannipataj jwara*.
- Typhi dot should be positive.
- Widal titre with 1:80 or more than 1:80.
- Patients between the age group of 16 to 70 years.

d) EXCLUSION CRITERIA-

- Negative typhi dot and Widal titre less than 1:80.
- Patients having *Vishama Jwara* like Malaria, Dengue, Chikungunya etc.
- Known case of chronic heart diseases, kidney diseases, HTN, DM, severe infections.

INVESTIGATIONS –

- 1) Serological tests like Widal test detect.
- 2) Typhi Dot test.
- 3) Other routine hematological tests like Hb%, TLC, DLC, ESR.
- 4) Urine examination (R/M) (if required).

Duration of study – 90 days

CRITERIA FOR ASSESSMENT

For comparison of *Laksana* of *Pittoulbana Sannipataj Jwara* described in *Charaka Samhita*⁵ with symptoms of typhoid fever, all the symptoms were given scoring pattern depending upon their severity as below –

1) VERCOBHEDA

1. Normal defecation-0
2. Watery, greasy stool without any food particle seen in stool-1
3. Watery, greasy stool with half-digested food particle seen in the stool-2
4. Watery, greasy stool with undigested food particles seen in the stool-3

2) AGNI DAURBALYTA

Jarana Shakti

1. Feeling of *guruta* just after meal but within 1 to 2 hour feeling of *laghuta*-0
2. Feeling of *laghuta* within 4 to 6 hour after meal-1
3. Feeling of *laghuta* more than 6 hours after meal-2
4. No particular feeling of *laghuta*-3

Abyavarana Shakti

1. Diet intake according to demand in time – 0
2. Diet intake 25% less than according to demand in time-1
3. Diet intake 50% less than according to demand in time-2
4. Diet intake less than 50% according to demand in time-3

3) BHRAMA–

1. Absent–0
2. Occasional-1
3. Frequently-2
4. Regular-3
5. Constant-4

4) TRISHNA–

1. Normal thirst which is relieved after intake of water-0
2. Feels thirsty after one hour of taking water with dryness of mouth-1
3. Feels thirsty within half an hour of taking water with visible dryness of lips-2
4. Excessive thirst which is not relieved even after taking water with dryness of mouth and lips -3

5) ARUCHI

1. Normal instinct of taking food-0
2. Person has no desire for food but can take food without difficulty-1
3. Person has disliking for food due to fear of pain or vomiting-2
4. Person feels nauseatic even with a smell of the food-3

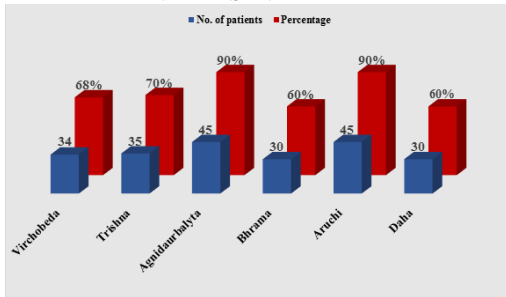
6) DAHA

1. Absent-0
2. Occasional-1
3. Frequent-2
4. Regular-3
5. Constant-4

OBSERVATIONS

Total of 50 patients were registered for the present study. It was found that the maximum number of patients, i.e. 54% belonged to the age group of 16–30 years. Sex wise, the maximum patients, i.e. 54% were males. Religion wise, maximum patients, i.e. 82% were Hindus. On considering the nature of occupation, it was found that the maximum patients, i.e. 38% were students and 24% were travelers. On considering Agni wise, a maximum of 62% of patients were having *Mandagni*. *Kostha* wise, maximum patients, i.e. 56% were having *Mrudu kostha*, Considering indulgence of dominant *Rasa* in diet, maximum patients i.e. 80% were taking *Amla Rasa* and *Lavana Rasa* respectively.

CHART 1-PRADHANALAKSANA



“O” TITRE	NO. OF Pts	PERCENTAGE
1:80	11	22.0%
1:160	18	36.0%
1:320	14	28.0%
>320	7	14.0%
“H” TITRE	NO. OF Pts	PERCENTAGE
1:40	14	28.0%
1:80	11	22.0%
1:160	21	42.0%
1:320	4	8.0%

RESULT

TABLE 4: RELATION BETWEEN SYMPTOMS WITH WIDAL TITRE

S.no	Symptoms & titre “O”	Sample size	p*	r*	Correlation
1	Verchobheda	50	0.000	0.5	Moderate positive

2	Jaranshakti	50	0.000	0.5	Moderate positive
3	Abhyavaranashakti	50	0.000	0.5	Moderate positive
4	Bhrama	50	0.03	0.2	Weakly positive
5	Trishna	50	0.03	0.2	Weakly positive
6	Aruchi	50	0.03	0.3	Moderate positive
7	Daha	50	0.2	0.1	No relation
Symptoms & titre “H”					
1	Verchobheda	50	0.00	0.3	Moderate positive
2	Jaranshakti	50	0.000	0.4	Moderate positive
3	Abhyavaranashakti	50	0.000	0.5	Moderate positive
4	Bhrama	50	0.02	0.3	Moderate positive
5	Trishna	50	0.00	0.4	Moderate positive
6	Aruchi	50	0.01	0.3	Moderate positive
7	Daha	50	0.00	0.3	Moderate positive

r* - Karl Pearson correlation coefficient, p* - Probability

DISCUSSION

Jwara is the most powerful ailment and affects the whole body, senses, and the mind⁶. In the present study, it was found that direct correlation between severity of symptoms and widal titre. That means with the chronicity of the disease, the level of titres increase as well as the severity of *Lakshana*. The agglutinin titre depends on the stage of the disease. Antibodies in the serum produced in the response to *Salmonella* organism and antibodies production depend on the extent of infection. The antibodies remain at a high level for about six months, after which the O antibodies fall rapidly, but the H may remain at a high level for years. Since, O antibody indicates active infection and that of H antibody signifies previous inoculation⁷. So, we can say that high titre denotes a stage of the disease, i.e. Acute or Chronic. Patients with high antibodies have more damage to their body. Ultimately, it affects the *Dhatu* and with the increase in titre, there is an increase in the severity of symptoms. As H is an indicative of chronic or previous infection, the severity of symptoms is more which is also seen in this study.

According to our classics, *Mithya ahara* means improper diet or the diet not according to rule⁸.

अकाले चातिमात्रं च ह्यासातम्यं यच्च भोजनम् ।
विशमं चापि यद्भुक्तं मिथ्याहारः स उच्यते ॥

Ingestion of food which taken untimely, excessive quantity, unwholesome and *Vishama* is called *Mithya ahara*.

- *Akala bhojana* means not taking a meal on time or taking after the actual time.
- *Atimatra bhojana* means taking food in excessive amount. *Acharya Charaka* stated that one part should be for solid, one for liquid and one part should be empty. If food is taken more than these parts known as *Atimatra Ahara*.
- *Asatmya Bhojana* foods which are not native to the place such as fruits of foreign origin. The *Ahara* which do not adversely affect the *dhatu*s, *dosha* and *srotasa* and nutritional to the body called *Pathya* and opposite to that is known as *Apathya*. *Apathya* food can be street food, Chinese food as all of these are made in unhygienic conditions and can transmit the bacteria to healthy individuals.
- *Visamasana* means consuming food in an appropriate quantity and inappropriate time.
- *Mithya Vihara* like bathing in contaminated water, swimming etc. can cause ingestion of bacteria. All these factors cause *Agnimandya* which is the cause of *Jwara*. In *Ayurveda*, *Acharya Sushruta* clearly explained *Jwara* under *Aupsargika Roga*⁹ which can be spread through eating of contaminated food with an infected person (*Sahbhajnata*).

CONCLUSION

The knowledge of Typhoid fever in modern science closely resembles with the description of *Pittoulbana Sannipataj Jwara* in classical Ayurvedic texts, which is verified in this study on the ground of same etiological factors and *Laksana* of both the diseases and with the increase in symptoms of *Pittoulbana Sannipataj Jwara*, the widal titre also increases. The assessment of severity of symptoms can be a ray of hope to prevent complication and relapse so, that safe alternate method of treatment can be given to the patient. This method can be used as the diagnostic and prognostic tool.

REFERENCES

1. Pt. Kashinath Shastri, Dr. Gaurakhnath Chaturvedi, Vidhyotini Hindi commentary on Charaka Samhita of Agnivesha revised by Charaka and Dridbala, Chikitsasthana 3/83, Ed. Chaukhamba, Varansi; 2009. P.88.
2. Elin Näsström, Diagnosis of acute and chronic enteric fever using metabolomics, Department of chemistry; Umea universitet, Umea 2017, p.no.4
3. Elin Näsström, Diagnosis of acute and chronic enteric fever using metabolomics, Department of chemistry; Umea universitet, Umea 2017, p.no.4
4. C.K J Paniker; editor, Textbook of Microbiology Ananthanarayan and Paniker's edition 7th, Oriental Longman Private Limited, Hyderabad; 2006 P.no. 288
5. Pt. Kashinath Shastri, Dr. Gaurakhnath Chaturvedi, Vidhyotini Hindi commentary on Charaka Samhita of Agnivesha revised by Charaka and Dridbala, Chikitsasthana 3/83, Ed. Chaukhamba, Varansi; 2009. P.88.
6. Pt. Kashinath Shastri, Dr. Gaurakhnath Chaturvedi, Vidhyotini Hindi commentary on Charaka Samhita of Agnivesha revised by Charaka and Dridbala, Nidanasthana 1/, Ed. Chaukhamba, Varansi; 2006. P.no.615
7. A. B. Christie, Current Surveys on Typhoid Fever; Postgrad. Med. Journal (1966), 42.
8. Vaidya Yadunandana Upadhyaya; editor, Vidhyotini Hindi commentary on Madhva Nidan; Madhukosha Vajykya, Jwar nidan 2/2, Ed. 18 Chaukhamba Prakashan, P.no.87
9. Shashtri AD; editor, Ayurveda Sandipika hindi commentary on Sushruta Samhita, Chakhambha Sanskrit Varansi; Nidan sthan, chapter 5/33-34, Reprint ed. 14th, 2016 P.no. 325