Summary and Conclusion

Present clinical study entitled “CLINICAL ASSESSMENT OF KOŚTHA AND ITS RELATION WITH PRAKR̄TI, ANNAVAHA AND PURĪṢAVAHA SROTO VIKĀRA” comprises of conceptual study of Annavaha & Purīṣavaha Sroto Vikāra, Kośṭha, Srotas, along with the haematological and serological parameters.

Aim and Objectives

- To evaluate the concept of Deha Prakṛṭi in relation to types of Kośṭha clinically
- To study the association of types of Kośṭha in Annavaha, Purīṣavaha Sroto Vikāra
- To evaluate the types of Srotoduṣṭi in relation to Kośṭha.
- Evaluation of relationship between Annavaha, Purīṣavaha Sroto Vikāra and Deha Prakṛti
- Assessment of ancillary investigations in respect to Annavaha, Purīṣavaha Sroto Vikāra
- To assess the status of Agni in Annavaha, Purīṣavaha Sroto Vikāra
- To assess the status of Āma in Annavaha, Purīṣavaha Sroto Vikāra.

The first conceptual study deals with various theoretical aspects of Annavaha, Purīṣavaha Sroto Vikāra as Grahaṇi Gada, Ajr̄a, Atisāra, Śūla and Amlapitta i.e. it deals with about etymology, definition, etiopathogenesis, clinical picture and prognosis.

Modern review comprises of Irritable bowel syndrome, Indigestion, Diarrhoea, Pain in abdomen and Acid peptic disorders, Gastro esophageal reflux
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disease with their detail narration of etiopathogenesis, clinical picture, differential diagnosis, laboratory investigations and prognosis.

140 registered cases that fulfilled the criteria of diagnostic features Annavaha and Purīśavaha Srotos Vikāra were grouped into five groups based on the presenting complaints and fulfilling the criteria of diagnostic features of Grahaṇī Gada, Aṣīrṇa, and Amlapitta.

**Group-1:** 40 cases of Grahaṇī Gada

**Group-2:** 20 cases of Aṣīrṇa

**Group-3:** 20 cases of Atisāra

**Group-4:** 30 cases of Śūla

**Group-5:** 30 cases of Amlapitta

The 140 cases were registered from June 2016 to November, 2016 from OPDs of Vikṛti Vijñāna and Gastroenterology, Sir Sunderlal Hospital, Institute of Medical Sciences, Banaras Hindu University, Varanasi-221005. Clinical study comprises of subjective and objective criteria.

After the diagnosis of Grahaṇī Gada, Aṣīrṇa, Atisāra, Śūla and Amlapitta, assessment of the status of Koṣṭha, Prakṛti, Agni and Āma was carried out in all patients. Findings were recorded in proforma specially designed for the present study.

Summary of the present study are as follows:

**AGE**

**Group-1:** 35% cases were in the age group of 26 – 35 yrs.

**Group-2:** 55% cases were in the age group of 26 – 35 yrs.
Group-3: 45% cases were in the age group of 26 – 35 yrs.

Group-4: 30% cases were in the age group of 16 – 25 yrs.

Group-5: 40% cases were in the age group of 36-45 yrs.

SEX

Group-1: 52.5% cases belonged to female category.

Group-2: 60% cases belonged to male category.

Group-3: 65% cases belonged to male category.

Group-4: 60% cases belonged to male category.

Group-5: 60% cases belonged to female category.

MARITAL STATUS

Group-1: 70% cases were married.

Group-2: 80% cases were married.

Group-3: 90% cases were married.

Group-4: 80% cases were married.

Group-5: 83.3% cases were married.

RELIGION

Group-1: 90% cases belonged to Hindu community.

Group-2: 100% cases belonged to Hindu community.
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**Group-3**: 95% cases belonged to Hindu community.

**Group-4**: 96.7% cases belonged to Hindu community.

**Group-5**: 83.3% cases belonged to Hindu community.

**OCCUPATION**

**Group-1**: 45% cases belonged to house wife category.

**Group-2**: 35% cases belonged to house wife category.

**Group-3**: 50% cases belonged to worker category.

**Group-4**: 30% cases belonged to house wife and worker category each.

**Group-5**: 46.7% cases belonged to house wife category.

**SOCIO – ECONOMIC STATUS**

**Group-1**: 57.5% cases belonged to lower middle class socio – economic status.

**Group-2**: 65% cases belonged to lower middle class socio – economic status.

**Group-3**: 80% cases belonged to lower middle class socio – economic status.

**Group-4**: 66.7% cases belonged to lower middle class socio – economic status.

**Group-5**: 46.7% cases belonged to middle middle class socio – economic status.

**EDUCATION**

**Group-1**: 45% cases belonged to graduate category.

**Group-2**: 45% cases belonged to high school category.

**Group-3**: 55% cases belonged to high school category.
Summary

Group-4: 50% cases belonged to high school category.

Group-5: 36.7% cases belonged to high school category.

DIET

Group-1: 65% cases belonged to mixed diet pattern category.

Group-2: 55% cases belonged to mixed diet pattern category.

Group-3: 75% cases belonged to mixed diet pattern category.

Group-4: 66.7% cases belonged to mixed diet pattern category.

Group-5: 66.7% cases belonged to mixed diet pattern category.

KOŚTHA

Group-1: 60% cases were of Mrdu Kośtha.

Group-2: 40% cases were of Madhyama Kośtha.

Group-3: 55% cases were of Mrdu Kośtha.

Group-4: 46.7% cases were of Mrdu Kośtha.

Group-5: 53.3% cases were of Mrdu Kośtha.

AGNI

Group-1: 75% cases were of Viṣamāgni category.

Group-2: 55% cases were of Viṣamāgni category.

Group-3: 50% cases were of Viṣamāgni and Mandāgni category each.
Summary and Conclusion

**Group-4:** 50% cases were of Viṣamāgni category.

**Group-5:** 50% cases were of Viṣamāgni category.

**ĀMA**

**Group-1:** 92.5% cases had Āma in body.

**Group-2:** 95% cases had Āma in body.

**Group-3:** 90% cases had Āma in body.

**Group-4:** 80% cases had Āma in body.

**Group-5:** 93.3% cases had Āma in body.

**PRAKṛTI**

**Group-1:** 55% were of Vāta-Pittaja Prakṛti.

**Group-2:** 55% were of Pittaja-Kaphaja Prakṛti.

**Group-3:** 50% were of Vāta-Pittaja Prakṛti.

**Group-4:** 60% cases were of Vāta-Pittaja Prakṛti.

**Group-5:** 50% cases were of Vāta-Pittaja Prakṛti.

**SROTODUŚTI**

**Group-1:** 57.5% cases had Atipravṛtti Srotoduśti.

**Group-2:** 85% cases had Saṅga Srotoduśti.

**Group-3:** 100% cases had Atipravṛtti Srotoduśti.

**Group-4:** 86.7% cases had Saṅga Srotoduśti.

**Group-5:** 66.7% cases had Vimārgagamanam Srotoduśti.
Summary and Conclusion

KOŚṬHA AND PRAKRĪTI

Patients

- 51.4% cases were of Mrdu Kośtha
- 50% cases were of VP Prakṛti
- 52.9% were of Mrdu Kośtha out of 70 cases of VP Prakṛti.
- 37.1% were of Madhyama Kośtha out of 35 cases of VK Prakṛti.
- 71.4% were of Mrdu Kośtha out of 35 cases of PK Prakṛti.

Control

- 60% were of Mrdu Kośtha out of 20 cases of VP Prakṛti
- 1 case of VK Prakṛti was of Krūra Kośtha.
- 46.7% were of Madhyama Kośtha out of 39 cases of PK Prakṛti.

KOŚṬHA AND SROTODUŚṬI

- 65.5% were of Mrdu Kośtha out of 55 cases of Atipravṛtti Srotoduśṭi
- 40% were of Mrdu Kośtha out of 60 cases of Saṅga Srotoduśṭi
- 1 case of Śirāṇām Granthi was of Mrdu Kośtha.
- 41.7% were of Mrdu Kośtha out of 24 cases of Vimārgagamanam Srotoduśṭi

SĀMĀNYA LAKṢĀṆA OF DISEASES

- 82.5% cases had Laulya (greediness) in Sāmānya Lakṣāṇa of Grahaṇī Gada
- 90% cases had Gaurava and Avipāka in Sāmānya Lakṣāṇa of Amlapitta.
- 100% cases had Sadanam, Arocaka and Avipāka in Sāmānya Lakṣāṇa of Ajīrṇa.
SUMMARY OF OBJECTIVE CRITERIA

- Mean of hemoglobin was $12.645 \pm 1.637$ in Group-1, $12.590 \pm 2.094$ in Group-2, $12.779 \pm 1.519$ in Group-3, $12.502 \pm 1.700$ in Group-4 and $12.902 \pm 1.451$ in Group-5.

- Mean of Total leukocyte count (TLC) is $7900.5 \pm 2178.09$ in Group-1, $7254.5 \pm 1402.67$ in Group-2, $8025.5 \pm 1904.60$ in Group-3, $8049.7 \pm 1495.40$ in Group-4 and $7568.0 \pm 1337.29$ in Group-5.

- Mean of total bilirubin is $0.910 \pm 0.524$ in Group-1, $0.705 \pm 0.406$ in Group-2, $0.763 \pm 0.250$ in Group-3, $0.743 \pm 0.260$ in Group-4 and $0.780 \pm 0.487$ in Group-5.

- Mean of conjugated bilirubin is $0.374 \pm 0.189$ in Group-1, $0.332 \pm 0.224$ in Group-2, $0.406 \pm 0.198$ in Group-3, $0.321 \pm 0.134$ in Group-4 and $0.306 \pm 0.180$ in Group-5.

- Mean of unconjugated bilirubin is $0.544 \pm 0.414$ in Group-1, $0.373 \pm 0.207$ in Group-2, $0.334 \pm 0.193$ in Group-3, $0.425 \pm 0.209$ in Group-4 and $0.473 \pm 0.415$ in Group-5.

- Mean of SGOT is $41.875 \pm 17.459$ in Group-1, $43.150 \pm 18.888$ in Group-2, $53.700 \pm 19.684$ in Group-3, $45.633 \pm 30.142$ in Group-4 and $39.866 \pm 15.810$ in Group-5.

- Mean of SGPT is $41.875 \pm 17.459$ in Group-1, $41.400 \pm 14.379$ in Group-2, $52.600 \pm 21.009$ in Group-3, $41.566 \pm 26.892$ in Group-4 and $38.000 \pm 15.580$ in Group-5.

- Mean of alkaline phosphatase is $122.90 \pm 52.59$ in Group-1, $97.70 \pm 32.28$ in Group-2, $108.70 \pm 36.93$ in Group-3, $116.90 \pm 59.32$ in Group-4 and $110.80 \pm 51.37$ in Group-5.

- Mean of total protein is $7.584 \pm 0.704$ in Group-1, $7.325 \pm 0.545$ in Group-2, $7.535 \pm 0.556$ in Group-3, $7.489 \pm 0.639$ in Group-4 and $7.677 \pm 0.522$ in Group-5.
STOOL EXAMINATION

- 47.5% had undigested food particle in Group-1.
- 65% had undigested food particle in Group-2.
- 35% had no any abnormal finding in Group-3.
- 56.7% had undigested food particle in Group-4.
- 63.3% had undigested food particle in Group-5.

DIFFERENTIAL COUNT OF WHITE BLOOD CELLS

- 93.57% cases had neutrophil count within normal range.
- 95.71% cases had lymphocyte count within normal range.
- 85.71% cases had monocyte count within normal range.
- 84.29% cases had eosinophil count within normal range.
- 90.71% cases had basophil count within normal range.

MODERN DIAGNOSIS

- 55% cases diagnosed as IBS-A in Group-1.
- 60% cases diagnosed as dyspepsia in Group-2.
- 50% cases diagnosed as diarrhoea in Group-3.
- 53.4% cases diagnosed as peptic ulcer disease in Group-4.
- 43.3% cases diagnosed as GERD in Group-5.

COLONOSCOPY

- 92.5% cases had no any abnormal finding followed by 7.5% cases had colonic ulcers in Group-1.
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- 100% cases had no any abnormal finding in Group-2.
- 75% cases had no any abnormal finding followed by colonic ulcers in 20% in Group-3.
- 83.3% cases had no any abnormal finding followed by colonic ulcers in 6.7% cases in Group-4.
- 100% cases had no any abnormal finding in Group-5.

ENDOSCOPY

- 92.5% cases had no any abnormal finding in Group-1
- 40% cases had no any abnormal finding followed by antral gastritis in 20% in Group-2
- 95% cases had no any abnormal finding in Group-3
- 60% cases had no any abnormal finding followed by superficial gastritis in 20% in Group-4
- 30% cases had no any abnormal finding followed by grade-B GERD in 23.3% in Group-5.

ULTRASONOGRAPHY/MRI/CT SCAN

- 65% cases had no any abnormal finding followed by dilated bowel loops in 15% in Group-1
- 80% cases had no any abnormal finding followed by fatty liver in 20% in Group-2.
- 65% cases had no any abnormal finding followed by dilated bowel loops in 20% in Group-3.
- 66.7% cases had no any abnormal finding followed by dilated bowel loops in 10% in Group-4.
- 86.7% cases had no any abnormal finding in Group-5.
CONCLUSION

Reliability and validation of diagnostic criteria of Āma, Samāgni, Viṣamāgni, Mandāgni, Mrdu Koṣṭha, Madhyama Koṣṭha, Krūra Koṣṭha and Prakṛti were done.

It has been observed from our clinical study that-

- Incidences of Annavaha, Purīṣavaha Sroto Vikāra are more common in Mrdu Koṣṭha individuals.
- Most of the Grahaṇi Gada patients were belonged to Mrdu Koṣṭha.
- Most of the Ajīrṇa patients were belonged to Madhyama Koṣṭha.
- Most of the Atisāra patients were belonged to Mrdu Koṣṭha.
- Most of the Śūla patients were belonged to Mrdu Koṣṭha.
- Most of the Amlapitta patients were belonged to Mrdu Koṣṭha.

It has been observed that-

Most of the Annavaha, Purīṣavaha Sroto Vikāra patients showed presence of Āma in body. It is concluded from our study that incidence of Viṣamāgni is more common in Grahaṇi Gada, Ajīrṇa, Śūla and Amlapitta. Incidence of Viṣamāgni and Mandāgni is equal in Atisāra.