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Research Article

OBSERVATIONAL STUDY ON ETIOLOGICAL FACTOR OF PAKSHVADHA WITH REFERENCE TO CEREBROVASCULAR ACCIDENT

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ABSTRACT

Pakshavadha is a major neurological disorder that manifests as weakness or paralysis of one side of the body. The terms Pakshavadha and Ekangaroga are synonyms of the same disease and are used in classical treatises in various contexts. According to the modern terminology, hemiplegia is the squeal of pathological events which take place in the central nervous system. The general pathology describe for Vata roga are Dhatuksaya (~nutritional deficiency) and Margavarodha (~obstruction in the pathways). The preventive strategies for CVA can be applied precisely with the detailed study of Hetu and Samprati described in Ayurveda text and seen in patients. According to the modern terminology, Hemiplegia is the squeal of pathological events which take place in the central nervous system. The underlying pathology may be different such as cerebrovascular accidents, Neoplasm's, Infection etc. But paralysis will be a common symptom. The degree and extend of Neurological deficit depend upon the location and extension of damage of the brain cells. In certain cases, along with motor deficits disturbance of speech (Aphasia or Dysarthria) and loss of higher functions are also observed. The modern life style, Dietary habits, lack of proper exercise are ways of physical activates and mental stress and strain are said to have Definite role in the occurrence of Pakshvadha. This stresses the necessity of the up to date study of Pakshavadha which include socio epidemic aspect, physical examination and radiographic findings with special reference to Ayurvedic principles.

Key words: Pakshavadha, Hemiplegia, Hetu, Dhatuksaya, Margavarodha

INTRODUCTION

Pakshavadha is a major neurological disorder that manifests as weakness or paralysis of one side of the body. The terms Pakshavadha and Ekangaroga are synonyms of the same disease and are used in classical treatises in various contexts. Charaka included it in the classification of Nanatamaja Vata Vyadhi due to Vata dosha Prakopa and various Hetus like Ruksha (~rough), Shita (~cold), Alpa, Laghu, Langhana (~starvation), Ushna (~hot), Kashaya (~astringent), Tiktta (~bitter), Ativyavaya (~excessive intercourse), Atiprajagarna, Vishamopachar, Atiplawan(~excessive swimming), Atyadhya, Ativyayam (~excessive exercise), Dhukhashayya (~nutritional deficiency), Vegodiran, Atishighrayanseva (~excessive travelling), and Atiucchairbhashanai (~ excessive loud talking)[1]. It is considered as a Maharaoga from the point of prognosis difficult to cure and an according to the Ayurvedic concept the disease in the Madhyam Roga Marga (Marmas and Asthi Sandhi) and disturbing the function of Sira (~blood vessels) (ligaments) Kandara (~tendon)[2]. Ability to move from one place to another is the primary need of all living animals. The loss or reduction in the locomotive power or other voluntary activities of the individual makes him depend on others for his routine needs and the life becomes miserable for him. The proper functioning of the Karma-Indriyas is possible only when the motor system (~Chetavaha srotas) is intact.

According to the modern science, Hemiplegia is the squeal of pathological events which take place in the central nervous system. The underlying pathology may be different such as cerebrovascular accidents, Neoplasm's, Infection etc. But paralysis will be a common symptom. The degree and extend of Neurological deficit depend upon the location and extension of damage of the brain cells. In certain cases, along with motor deficits disturbance of speech (Aphasia or Dysarthria) and loss of higher functions are also observed. The modern life style, Dietary habits, lack of proper exercise are ways of physical activates and mental stress and strain are said to have definite role in the occurrence of Pakshvadha. The general pathology described for Vataroga are Dhatukshaya (~ nutritional deficiency or loss) and Margavarodha (~obstruction in the pathways)[3]. In Pakshavadha, Both the above factor have definite role in the pathogenesis. The circulatory disturbance affected due to the Margavarodha of VyanaVayu leads to the impairment in the supply of Poshak Dhatu to the brain cells which is the vital part (Marma) and controlling centre of motor and sensory functions. The complaints like Smuriti nasha, Vaksanga, due to Pranavaha Stroto- Dushti can also be observed in Pakshavadha. The sign and symptoms described for Pakshavadha can be observed in this stage and processed underlying in condition are due to the functional disturbance of Vyana Vayu and Prana Vayu which are main participant in Sandnya and Chestavaha (sensory and motor) processes. The circulatory disturbance affected due to the function one side of body is affected by this disease due to obstruction in pathway leading to particular part of body.

Pakshavadha is said to be disease of Madhyama Rogamarga and the functional and structural deformities are due to involvement of joint and related stature like tendon ligament. This phenomenon may occur in two ways; primary is Margavarodha Pradhan Samprapti and second is Dhatukshaya. In haemorrhagic phenomenon RaktaaDushti occurs and simultaneously Ksharana of Mastikshgata Sira both this factors may contribute for ICH
The preventive strategies for CVA can be applied precisely with the detailed study of Hetu(~etiological factor) and Samprati(~patjogenesis) described in text and seen in patients. This stresses the necessity of the up to date study of Pakshavadha which include socio epidemic aspect, physical examination and radiographic findings with special reference to Ayurvedic principles.

Aim and Objective

1) To study Samprapti of Pakshavadha in present context according to Hetu.
2) To study of samprapti of Pakshavadha as mentioned in Ayurveda text and as seen in patients according to Hetu.

MATERIALS AND METHODS

The sixty patients were selected from OPD and IPD of Govt.Ayurved Hospital**.**
1**)** Diagnosed patients were selected as per selection criteria and observed the Hetu and Samprapti of Pakshavadha**.**
2**)** To observed rate of occurrence of specific Hetus of Pakshavadha as per Ayurvedic texts

Criteria of selection

Patients with complaints of weakness in right or left upper and lower Extremities, and one upper or only lower or all Extremities**.**

Muscle power grade[4]

1) Grade 0 no power
2) Grade I flicker of contraction only
3) Grade II movement with gravity eliminated
4) Grade III movement against resistance
5) Grade IV movement against gravity and some resistance

Exclusion criteria

Unconscious, uncooperative and critically ill patients were excluded**.**

Study design

Detailed history was taken according to following points

1) Present complaints
2) Previous disease
3) Treatment if any taken
4) The family and social history
5) The occupational history
6) The patients were examined thoroughly**.** The necessary investigations were done**.**
7) All the clinical data was arranged in specially designed case paper along with Ayurvedic principles**.**

OBSERVATIONS

In the study, male are 35 that is 58% and female are 25 that is 42%.

Table 1: Distribution of patients according to disease history

Disease history	Number of cases	Percentage (%)
Diabetes mellitus	15	25
Hypertension	36	60
Arsha	10	16
Amlapitta	16	26
Rheumatic heart disease	03	05

Table 2: Distribution of patients according to Ahara (diet)

Ahara	Number of cases	Percentage (%)
MisharAhari	34	56.66
ShakAhari	26	43.33

Table 3: Distribution of patients according to Ras sevanadhikya

Ras sevanadhikya	Number of cases	Percentage (%)
Katu ras	25	41
Lavan ras	37	31
Amla ras	20	48
Madhur ras	19	33

Table 4: Distribution of patients according to violation of AAharavidhi

Aharavidhi	Number of cases	Percentage (%)
Abhishayandi	29	48
VirudhaAhara	10	16
Addhayshan	23	38
Paryushita	04	07
Vidahi	09	15

Table 5: Distribution of patients according to Mansik Hetu

Mansik Hetu	Number of cases	Percentage (%)
Mental stress	27	45
Physical stress	21	35
Sedentary lifestyle	17	28

Table 6: Distribution of patents according to AAharaiya Hetu

AAharaiya Hetu	Number of cases	Percentage (%)
Ruksha	47	78
Shita	38	63
Alpa	28	46
Laghu	15	25
Langhana	20	33
Ushan	31	51
Kashaya	00	00
Tiktta	00	00

Table 7: Distribution of patents according to Vihariya Hetu

Vihariya Hetu	Number of case	Percentage (%)
Ativyavaya	15	25
Atiprajagarnai	22	36
Vishamopachar	06	10
Atiplawan	13	21
Atyadhva	16	26
Ativyayam	25	41
Dhukhasana	00	00
Dhukhashayya	00	00
Vega udirana	16	26
Vega dharana	27	45
Atishighrayanseva	29	48
Atiucchairbhashanai	11	18

Table 8: Distribution of patients according to Pakruti

Prakruti	Number of case	Percentage (%)
Kapha Pradhan VatAnubandhi	10	16
VataPradhan kapha Anubandhi	19	31
PittaPradhanb VatAnubandhi	27	45
KaphaPradhan Pittanubandhi	04	06

Table 9: Distribution of patients according to Kostha

Koshatha	Number of cases	Percentage (%)
Murdu	29	48
Krura	15	25
Madhyam	16	26

Table 10: Distribution of patients according to Agni

Agni	Number of cases	Percentage (%)
Tikshna	21	35 %
Vishama	19	31%
Madhyama	20	33%

Table 11: Distribution of patients according to Dosha

Dosha	Number of cases	Percentage (%)
VataPittanubdhini	21	35 %
VatakaphAnubandhini	39	65 %

RESULTS

This study shows that; hypertension is the predominant aggravating factor which is 60 %. The 56.66 % patients have Mishra Ahara (mix diet). The predominant intake of Amla and Katurasa were found. Abhishyandhi violation of Aharaavidhi was 48% patients. Mental stress was the major contributing factor in Pakshvadha that is 45%. Ruksha and Shita predominant Ahara (diet) was more found than other that was 78% and 63 %. In Vihariya Hetu the major predominant Hetu was Ativyayam. In patients, 45% were having Pitta Pradhan Vata Anubandhi Prakruti. Maximum 48%patients were having ha Mrudu Kostha. 35%Tikshna Agni patients were found. Ruksha Pradhan Ahara was more found as 78% Shita Pradhan Ahara is found next to Ruksha Ahara about 63%. This study shows that 65% patients were found Vatkapha Dosha dominancy.

DISCUSSION

Pakshavadha is more predominant in old age. In old age both etiological factor i.e Margavarodh and Dhatukshaya occur simultaneously so chance of Pakshavadha increases. In disease history maximum 56% patients had history of hypertension, which is mainly vascular disorder of Pakshavadha. In this study maximum 61% patients were having lavanarasadhikya Lavana rasadhikya is responsible for Rakta Dushti and ultimately lead to haemorrhage. In Mishra Ahari patients' infarction phenomenon found more. Medo Vurddi due to Abhishyandi Ahara like mams lead to atherosclerosis and infaction.

Lavane is more Pitta Prakopa, Rakta(~blood), Mansa(~tissue) Dushtikar Due to lavana Rasadikashya ushan ,Tikshna in blood increases to reduce this Ushnatwa fluid is sucked from intestinal to intravascular space it leads to increase in total volume /pressure of blood on vessels wall, which is called as hypertension. As hypertension is main risk factor for both haemorrhagic as well as infarct phenomenon. Pitta Pradhan Vata Anubandhi Prakruti of patients were 45% among which most of them were of haemorrhagic stroke as there was Rakta Dushti because patients get affected due to dominant dosha in his Prakruti

Similarly, Vata Pradhan kapha anubhani Prakruti were found to be suffering from infarction. Maximum patients were Mrudu Kostha 48% these patients have Pitta dosha predominace among which most of them were haemorrhagic 90%. Tikshna Agni patients were found 35% in these patients dhatugatavasta readily occurs. Ruksha Pradhan Ahara was more found than other 78% as sneha is mainly important for proper functioning of sira snayu also it inhibit Vataprakop in sharir dhatu, by nourishing prakruta sleshama.

Shita Pradhan Ahara is found next to Ruksha Ahara about 63% as shit Ahara induces its stambha kathinya Gunas in sharis dhatu. Alpa Ahara found in 46% patients leads to dhatukshaay and ultimately Vataprkopa. Vegodiran,Vegdharan is main causative factor for Pakshavadha samprapti.in our study vegdharan Hetu found in 45% patients and patinents with Vegodiran Hetu found 26%. Hetus like atishighrayanseva, ativyavam are mainly Vata Pitta Dushtikar. These two Hetus are RaktaDushtikar when they performed after bhojan (food) or singdha bhojana (fatty food) during study Atishighryan Seva Hetu found in 48% patients and Ativyavam found in 41% patients. In study divasvap Hetu found inf maximum 53% patients. Divaswap is Tridosha Dushtikar .It is Apathyakar after food, and specially cause StrotoDushti.

CONCLUSION

The correlation of Ayurvedic and modern cerebrovascular disease reveals that concepts of contemporary neurology are applicable to Ayurvedic Pakshavadha. That include correlation between Nidan (etoiology), Rupa (symptomatology),Samprapti (pathogenesis), Dosha-Prakopa and Strotovaigunya concepts. Using the modern diagnostic tools like stethoscope, hammer, CT scan and M.R.I report the concept of Samprapti can be rectified in view of Dosha-Prakopa and Strotovaihunya which facilitate modern Ayurvedc physician to be precise in his knowledge and treatment.

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