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Research Article

STANDARDIZATION OF RAKTA SARA PARIKSHA: A SURVEY BASED STUDY

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ABSTRACT

Sara is a very important concept of Ayurveda by which quality of tissue is analyzed and one can predict what diseases are going to afflict the person more. It is one of the most important diagnostic tools included in the dashwidha pariksha. The main difficulty for proper assessment is that its examination is subjective and so accuracy and reproducibility becomes difficult. There is need of standardized examination technique so that one can get reliable results. Despite sara being such an important diagnostic tool not much efforts have been done to standardize the assessment of sara. An effort was made with this study to standardize the parameters of rakta sara described in Ayurvedic texts and to provide objectivity to rakta sara examination. For this, a specially designed proforma was formed and survey was performed in 372 healthy individuals. Based on scores obtained individuals were categorized into Pravar, Madhyama & Avara rakta sara. In this study, 16.94% individuals were found to be Pravara rakta sara, 79.03 % were madhyama rakta sara and 4.03% individuals were in range of avara rakta sara.

KEY WORDS: Rakta Sara, Standardization, Pravara Sara, Madhyama Sara, Avara Sara

INTRODUCTION

Diagnosis is central, golden link in the chain of medical knowledge that brings together all its theoretical aspects to provide the practical key to treatment. Diagnosis, to be accurate and sound, must be built upon a broad yet definite base of knowledge regarding all aspects of human anatomy, physiology and pathology. The practice of diagnosis in modern medicine has been radically altered by the advent of high technology. The modern physician relies heavily on technology and sophisticated machinery throughout the diagnostic process whereas in Ayurveda diagnosis is mainly done by physical examination and so observations mainly depend upon clinical skills and experience of the physician. As diagnosis in Ayurveda is subjective in nature interpretation of same patient may be different by different observer. Keeping this in mind recently, a need to develop supportive new scientific evidence for contemporary Ayurveda has emerged. One of the research objectives is an assessment of the reliability of diagnoses and treatment.1

Categorization is first and foremost scientific phenomena to get knowledge about some vast group. Among the various concepts of ayurveda, Sara is one of the most important concepts of categorization of individuals into various groups. The concept of sara is described under Dasvidha rogi pariksha (tenfold examination of patient)² along with other parikshas like, prakriti (constitution), vikrti(morbidity), samahanana (compactness of body), pramana (relative proportion of different organs), satmya (homologation), sattva (power of performing exercise) and vayas (age).

The physical and psychological characteristics of different sara, described in texts are the reflections of status of tissues in the form of structure and functions.³ Thus, the sara concept provides an idea about the condition of dhatu (tissue) in the body as well as strength of an individual.⁴ Examination of sara is difficult as it is subjective in nature so to standardize the examination technique of rakta sara, one among eight sara this study was undertaken.

MATERIAL AND METHODS

A proforma was designed incorporating the sign and symptoms of rakta sara persons as described in Samhitas and the hematological laboratory parameters. To standardize rakta sara normal apparently healthy individuals were taken in the study. For each characteristic, grading was done and scores were allotted. On the basis of total scores obtained, the subjects were divided into three categories: Pravar sara (Individuals with excellent tissue quality), Madhyam sara (Individuals with moderate tissue quality), and Avar sara(Individuals with poor tissue quality).

Survey proforma included history taking, physical examination (by visual analogue scale), psychological assessment, metabolic or functional assessment, and also the laboratory assessment of the blood indices. These parameters of the survey were based on Sara lakshanas described in Charaka Samhita Vimana Sthana. According to Charaka, a rakta sara person has following characteristics in him – sukham, uddhatam, medha, manasvita, saukumaryata, anatibala, aklesh sahishnuta, ushna asahishnuta and the four parameters like unctuousness (snigdhata), redness (rakta varnta), lustureness (shrimad), and radiance (bhrajishnuta) are to be looked in 10 body parts of a rakta sara person namely, Earpinna (karna), eyes (akshi), face (mukh), tongue (jihwa),

nose (nasa), lips (oshtha), palms and soles (pani-paad tal), nails (nakha), forehead (lalaat), perineum (mehanam). It was practically difficult to assess perineum so it was not examined in the study. Evaluation of Shastrokta Lakshanas was done according to the questionnaires and scoring given for each part.

Distribution of Scores

For calculating scores, methodology adopted is mentioned in Table 1. Maximum score thus obtained was 144. Total of 395 persons were surveyed, and thoroughly assessed for each parameter described in the survey proforma. With the help of proforma total score in each individual was assessed. On the basis of score obtained individuals were categorized into Pravar, Madhyam & Avara Rakta Sara. Individuals with score more than 110 were regarded as Pravar Rakta Sara, scores between 80-110 were considered that of Madhyam rakta Sara & individuals with score less than 80 were regarded as Avara Rakta Sara

Each subject was also assessed for their laboratory parameters (hematological) Hb %, TLC, Platelet Count, ESR, MCV, MCH, MCHC, RDW, BT, CT, Blood Group.

OBSERVATION AND RESULTS Categorization of Shastrokta Rakta Sara individuals

On the basis of scoring of physical, psychological and metabolic assessment as calculated by the questionnaires framed on the basis of classical Ayurvedic texts the total subjects were divided into three categories. Pravara rakta sara cases were found to be 63 (16.94%), madhyama rakta sara were 294 (79.03 %) and avara rakta sara were 15 (4.03%) out of total 372 cases assessed. Here the total number of subjects was 372, since 23 persons suffering from the skin diseases were excluded out from the study. (Table 2)

Relation between Ahaara and Rakta Saarata

Out of 63 pravara sara cases, 62(98.14%) cases were found to be sarva rasa satmya and only one case (1.58%) was taking rakta dushti nidana. 294 cases were found to be of madhyam sara in which 240 cases (81.63%) were taking sarva rasa satmaya ahaar and 54 cases(18.63%) were taking rakta dushti nidana predominant ahaar. In 15 cases of avar sara history of sarva rasa satmaya was found to be in 7 cases (46.67%) and in 8 cases (53.33%) history of rakta dushti nidana was present. (Table 3)

Relation between Shastrokta & Laboratory parameter

Out of 63 Pravara rakta sara individuals, 74.,60% individuals had normal lab parameters, 60.88% of Madhyam rakta sara individuals and only 6.67% of Avara Rakta Sara individuals were found to have normal laboratory values of parameters mentioned above.(Table 4)

DISCUSSION

An effort was made with this study to standardize the parameters of rakta sara described in Ayurvedic texts and to provide objectivity in examination of rakta sara. In the first step, literary search of the parameters of the rakta sara was done. After finding exact meaning of the terms, where-ever possible subjective parameters were assessed by standardized protocols and scales which have been established by years of researches. If we critically analyze the verse mentioned for rakta sara in

Charaka Vimana sthana, we will find that Acharya has divided it judiciously in two parts — in first of the verse, Acharya has mentioned the parameters which physician has to assess by examination and in second part of the verse parameters which are described have to be assessed by asking questions to the patient. So in our study we also followed the same pattern and 50% of total score was allotted to physical examination while 50% of the scores came from questionnaires framed to assess parameters mentioned in second part of the verse. The total score of rakta sara in our study was kept 144.

Pravara sara refers to good quality of dhatu. For this research, it was decided that we will consider quality of rakta dhatu good when score obtained is atleast above 75 %. Keeping this in mind the range which was fixed for Pravara sara was >110 score. It was thought that dhatu will be considered of inferior quality if it has only half of the attributes mentioned in verse. Madhyama refers to average and so in this category dhatu quality is of average quality neither superior nor inferior. Keeping these facts in mind, range for madhyam sara was decided to be in between 110 and 80 and for avara sara it was fixed as less than 80.

As the main aim of this study was standardization of rakta sara, the subjects chosen for our survey were apparently healthy individuals. 23 cases with the history of skin diseases were excluded from the study as skin diseases are produced only when rakta dhatu is vitiated. Vitiation of rakta dhatu itself suggests the inferior quality of the dhatu and as there was no utility to evaluate such cases further for standardization of rakta sara they were not included. Such cases can be considered under avara sara for the general purpose.

Out of 372 cases, 309 persons were taking sarva rasa in their diet and 63 persons were taking rakta dushti nidana. It suggests that rakta dushti nidana intake will always cause vitiation of rakta dhatu as well it will depend on other factors also. Acharya have also mentioned that if agni is strong it will digest all kind of food and person will not suffer from diseases even if he doesn't follow dietary laws mentioned in texts.

When sub-division of diet profile was done it was found that 8 cases out of 15 from avara sara gave history of intake of rakta dushti nidana. This data supports karya-karana principle of Ayurveda i.e. if one consumes aetiological agent regularly he is likely to have vitiated dosha and dhatu. But this is always not the case as vitiation will depend on other factors also as discussed earlier.

Rakta is commonly taken as synonym of blood. Keeping this in mind rakta dhatu parameters were tried to co-rrelated with modern haematological parameters. Results obtained from Shastrokta parameters and lab investigations were comparable but not matched exactly. 75% of pravara, 60% of madhyama and 6 % of avara cases had normal lab investigation results which prove that lab parameters can be suggestive of rakta dhatu quality but upto a certain extent only.

While assessing rakta sarata of any individual, we have to consider other parameters like medha, sukha, bala etc. also. It can be said that in Ayurveda functions of rakta dhatu is broad and it has not been limited upto nourishment of tissues only. Pscychological aspect like klesh ashahishnuta, medha etc. and spiritual aspect like manaswita has been included under rakta sara lakshanas. Thus we cannot limit ourselves upto haematological parameters only while assessing rakta sara and we should assess other important aspects related to rakta.

Table 1: Distribution of scores

Sr. No.	Parameter to be examined	Methodology adopted for assessment	Maximum Score allotted
1	Snigdhata, Raktavarnata, Shrimada, Bhrajishnu	Visual Analogue Scale	72
2	Sukha & Uddhta	Short scale oxford happiness questionnaires	28
3	Medha	Intelligence scale	16
4	Manaswita	Questionnaire	5
5	Soukumarya & Anatibalatva	Questionnaire	5
6	Klesh asahishunata	Questionnaire	3
7	Ushnashishunata	Questionnaire	5
8	Functional Aspect	Questionnaire	10

Table 2: Categorization of shastrokta rakta sara individuals

S.No.	SARA (Total Subjects, n=372)	No. of Subjects	Score Range	%
1.	Pravar sara	63	> 110	16.94
2.	Madhyam sara	294	80-110	79.03
3.	Avar sara	15	< 80	4.03
	Total		395	100.00

Table 3: Relation between ahaara and rakta sarata

Sara	Total	Sarva rasa	% of Sarva rasa	Rakta dushti	% of rakta dushti
	Subjects	satmaya	satmaya	Nidana	nidana
Pravar Sara	63	62	98.14 %	1	1.58%
Madhyam Sara	294	240	81.63%	54	18.36%
Avar Sara	15	7	46.67%	8	53.33 %

Table 4: Relation between shastrokta & laboratory parameter

Sara	Total Subjects	Subjects with Abnormal Lab values	Subjects with normal Lab values	% of subjects with normal range
Pravar Rakta Sara	63	16	47	74.60 %
Madhyam Rakta Sara	294	115	179	60.88 %
Avar Rakta Sara	15	14	1	6.67 %

CONCLUSION

Thus it can be concluded that lab parameters can be of use while rakta sara assessment but these cannot replace the shastrokta lakshanas completely. Thus there is need that we found mid-way and should develop a scale with lab parameters as a part and other standardized subjective parameters as mentioned in Ayurvedic texts.

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