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AN ANALYTICAL REVIEW ON KLOMA AND SUPRARENAL GLAND

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ABSTRACT

The kloma which is one of the root of Udakavaha srotas is additionally an indefinite organ. A difference of opinions is found in Ayurvedic content with respect to the kloma. Many authors have descirbed kloma as Pittasaya , Agnasaya, and Phuphusa. But due to presence of typical features like thirst and death by dehydration we thought to compare it with suprarenal gland as it is nearer to spleen and liver and by their position is present Just below the heart. In Sushruta Samhita kloma is a singular organ, if we consider Gananath Sen references kloma should be on both sides as well as lungs should be on both sides. There is a major similarity between the physiological working of kloma and suprarenal gland. In Udakvaha srota (Talu,Kloma) Vidha Pipasa and Sadya Maran is seen in a patient, also loss of cortex of suprarenal glands leads to loss of aldosterone which in turn leads to severe dehydration, thirst and death.

INTRODUCTION-

Description of kloma in various Ayurvedic Samhitas is different as it is said that kloma is the moola of Udakavaha srotas. A difference of opinion is found in Ayurvedic texts regarding the kloma.This article is a small step of direction in order to shine some light on the Anatomico-Physiological analysis of kloma and supra renal glands.

MATERIAL & METHODS –

Major Samhitas of Ayurveda (Charak Samhita, Sushruta Samhita, Astanga Hridaya), with their commentries. Basic modern Physiology books, articles from journals and relevent internet sites were availed.

DISCUSSION -

Anatomically the position of kloma is difficult to specify, but physiologicaly may be it quite similar to Suprarenal gland by recognizing that a basic sign Trishna is related to it. Charaka has mentioned 15 koshthagas and kloma is one of them. Sushruta describe kloma in the context of Hridaya.[1] Gananath Sen Correlate kloma with trachea in the commentary of sushruta Samhita.[4] But trachea present postero superiorly to the heart. Here the Question arise?

As we consider the anatomical situation of spleen – Spleen is related Superiorly to diaphragm and left pleura of the left lung.Thus on the left side below the heart is the left lung and the spleen. Over to the right side is liver. Especially kidney has relations with both liver and spleen and Surprisingly Supra renal gland is also related to them.

Cortex part of Suprarenal gland is involved in the secretion mineralocorticoids and Glucocorticoids. Formation and secretion of aldosterone is maintained by zona glomerulosa Layer of Cortex. The Secretion of aldosterone is controlled by Angiotensin II and Potassium. in case there is total loss of aldosterone secretion death may occur within three days to Two weeks unless aldosterone is injected intravenously.

This especially occurs due to loss of Na^+ and water quickly from the body, while k^+ Concentration rises quickly. This dominance to lesser cardiac output and further circulatory shock, eventually causing death.

Thus aldosterone is responsible in maintaining Cardiac output by controlling the levels of electrolytes. It acts on the distal renal tubules of the nephron and causes reabsorption of sodium and excretion of potassium. It helps in the absorption of water along with sodium. loss of aldosterone secretion leads to loss of sodium and water from the body. Such extreme loss leads to dehydration, cramps, thirst etc.[6,7]

RESULTS :

If there is injury to Udakvaha Srotas (Talu, Kloma) the person develops Trishna & Sadya Marana. This is quite alike to loss of aldosterone too. According to Ayurveda Sadya maran is death within 3-15 days. If Aldosterone loss is not corrected then the patient dies within 3 days to 2 weeks.

CONCLUSION :

Injury to kloma & supra renal gland leads to similar fatal condition to human body. So this article is a small step to give right direction towards the misconceptions regarding kloma.

REFERENCES:

1. Ambika Datt Shastri, Ayurved-Tatwa-sandipika, commentary on Sushruta samhita part-1, sharia sthana, chaukhamba Sanskrit Sansthan, Varanasi; chapter 9 page 96,97.
2. Ghanekar Bhaskar Govind, Ayurveda Rahasya Dipika commentary on Sushruta Samhita – Sharira sthan; Meharchand Lakshman das publication, reprint December 2013 chapter 9 page- 240-241.
3. Ambika Datt Shastri, Ayurved-Tatwa-sandipika, commentary on Sushruta Samhita part-1, sharia sthana, chaukhamba Sanskrit Sansthan, Varanasi; chapter 9 page 61,62.
4. Gananath Sen, Pratyaksha Shariram, Reprinted edition Varanasi, Chaukhamba Sanskrit Publication, 2007, page 68.
5. Vd. Desai Ranjitrai , Ayurvediya Kriya sharir, 1st ed. Nagpur shri Baidyanath Ayurved Bhavan;1999
6. Hall john E., Vaz Mario, Raj Toney, Anura Kurpad, Guyton and Hall, Text book of Medical Physiology, 2nd ed. South Asia edition, India:Elsevier Publication ;2016
7. Chaurasia B.D., Garg Krishna, Mittal PS, Chandruputla Mrudula, Human Anatomy Vol.1 Reprint 6th edition New Delhi 2014.
8. Piyush Verma: Analysis of Udakavaha Sroto viddha Lakshan with special reference to Kloma and acute pancreatitis due to blunt abdominal injury. International Ayurvedic medical Journal July 2018.
9. Pankaj Kumar Rajvanshi, Piyush Verma – A conceptual study on kloma w.s.r. to jalodar - International journal of Ayurveda and medical science, 2017.