CONCEPTUAL STUDY OF GRATHITA RAKTAPITTA W.S.R TO COR PULMONALE AND ITS MANAGEMENT BY KAMALNAALKSHAR

Kadam Krishna* and Jadhav Viraj

1Ph.D. Scholar, Asst.Professor, Department of Rog Nidan Vikriti Vigyan, Government Ayurved College, Nanded, Maharashtra, India.
2Associate Professor, Department of Rachna Sharira, Rani Dullaiya Smrity Ayurved P.G. College, Bhopal, Madhya Pradesh, India.

*Corresponding Author: Dr. Kadam Krishna
Ph.D. Scholar, Asst.Professor, Department of Rog Nidan Vikriti Vigyan, Government Ayurved College, Nanded, Maharashtra, India.

ABSTRACT

Ayurveda the science of life, provides the tools of leaving healthy life and solutions to recover from unhealthy status. For this, our Acharyas quoted a lot of enchanting secrets, thousands years ago in Ayurveda Shastra. Among these, use of Kamalnaalkshar in state of Grathita Rakta i.e in condition of thrombosis is one of them. Today is the era to draw the practical aspects on the basis of the therapeutic principals, which were written earlier, with the help of modern science. Author tried to give conceptual idea through this article for comparison of state of Grathita condition as mentioned in Charaka Samhita, by Acharya Charaka with that of Cor Pulmonale.

KEYWORDS: Cor Pulmonale, Pulmonary Embolism, Deep vein thrombosis, Kamalnaalkshar.

INTRODUCTION

Health is real wealth of life ‘This wealth is being lost, since now a days we are living in a world of stress, Strain and Struggle. The unhealthy life style developing as a new culture among the people. Fast running life, changed dietary habits, inappropriate sleep, burning competition, increased workload are the main causes for various physical, mental and psychosomatic disorders, this fact reduces our potentials. Ultimately these things promoting the human for use of allopathic medicine, causing various side effects, providing greatest hazards for them in coming days. Science is the knowledge, arranged in an orderly manner, especially knowledge obtained by observations and testing of facts. Ayurveda is also such an eternal science, where our ancient sages through their asservative knowledge are written the facts. Those fundamental facts are still applicable because of their scientific research not only to prove its truth but also to understand the fundamentals in better manners. Ayurvedic classics always emphasized the need of advancements, in the science to keep pace with need of treatment. Understanding of Ancient Ayurvedic concepts through investigative measures and their proof for curative purpose through their applications on man. Now it became need of today. Ayurveda the ‘science of life’ is full of uncountable secrets, out of those one is ‘Kamalnaalkshar’ (Kshara prepared by Kamalnaal), mentioned in Ch. Chi.-2 that is Raktpitachikitsadhyaya explains. dQkuqcU/kxS lfiÜks d.Bkxrs L; kn-xzfKrs iz=kksx%A ¼p-fp- 4 / 93½

Which means that, this drug may be an indication for treating the common cause of cor pulmonale, leading to Ischemic heart disease (IHD). In Ayurvedic literature, the concept of Grathit raktapitta given in Raktapittachikitsa by Acharya Charaka. But the pathogenesis of Grathita (stagnated) state of Rakta is not mentioned. So it is important to describe Grathit raktapitta in detail with help of modern science approach. The hypothesis regarding to use of Kamalnaalkshar in management of Cor-pulmonale is also one of the subject, requiring more concentration. They requires a sequential study of subject for making a hypothesis, useful in deciding the curative treatment of cor-pulmonale (Pulmonary embolism) and Grathita Raktapitta. With the help of modern and Ayurvedic hypothesis, it is possible to correlate Grathit Raktpittta with Cor pulmonale (or pulmonary embolism).

AIMS AND OBJECTIVES

1. To find out the solution of some medical emergencies, like pulmonary embolism in Ayurvedic perspects.
2. To rule out the mechanism of action of Kamalnaalkshara and its use in Grathita Raktapitta and Pulmonary embolism.
3. Correlation of pathogenesis of Grathita Raktpitta with Cor-pulmonale regarding with Ayurvedic and modern concepts.

For these purposes author tried to give.
1. Detailed description of pathogenesis of Pulmonary embolism and Grathita Raktapitta.
2. Properties of Kamalnakkshar with its mechanism of action on above diseased states.
3. Possible correlation among these states with respect to modern and Ayurvedic description in this paper.

Human being possess inbuilt system by which the blood remains in fluid state normally and guards against the hazards of thrombosis and haemorrhage. However injury to the blood vessel initiates thrombostatic repair mechanism or thrombogenesis.

Primary events, predisposing to thrombus formation are given by – Virchow called “Virchows triad” –
1. Endothelial injury
2. Alteration in flow of blood.
3. Hyper coagulability of blood.

**Cor Pulmonale**
Cor-meaning heart; pulmonale = lung. It is a pulmonary Heart disease of right side of the heart resulting from disorder of the lungs.

Embolism is the process of partial or complete obstruction of some part of cardio vascular system by any mass carried in the circulation; the transported intervascular mass, detached from its site of origin is called as an embolus. Emboli may be cardiac, arterial, venous or lymphatic origin. Depending upon the rapidity of development, Cor pulmonary may be acute on chronic.

Acute Cor pulmonary occurs following massive pulmonary embolism resulting in sudden dilation of the pulmonary trunk, canus and left ventricle.

**Pulmonary embolism**
It is the most common and fatal form of venous thromboembolism in which there is occlusion of pulmonary arterial tree by thromboemboli. The causes responsible for this diseased stage are mainly originating from sources since.

With this two origin, Pulmonary embolism may be minor, occurring at the site of periphery or it may major leading to main artery blockage.

**Potential outcomes of Venous Thrombosis**

![Potential outcomes of venous thrombosis](image-url)
**DEEP VENOUS THROMBOSIS**

Thrombus, present in larger veins of lower legs i.e. popliteal, Femoral, Iliac veins

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- Thromboemboli
- Venous drainage
- Larger Veins

↓

**DRAINING AS/IN**

- Multiple form of emboli
- Right Side of Heart
- Paradoxical embolism

↓

- Impacted in
- Number of vessels
- Obstruction of Small sized pulmonary arteries
- Pulmonary infarction

↓

- at the bifurcation of main pulmonary artery
- Death

↓

- Right Ventricle
- Acute cor pulmonale
- Systemic circulation

↓

- Outflow tract

↓

- Chest pain
- Dyspnoea
- Haemoptysis

↓

- due to Fibrinous pleuritis
- Reduced functioning pulmonary parenchyma.

↓

- due to Reduced functioning pulmonary parenchyma.
Flow chart showing events occurring in pathogenesis of Cor pulmonale

As like Cor pulmonary correlating events in pathogenesis of gradhit raktapitta are

**Properties of Kamal are**

deya 'khry o.;Za e/kqj% dQfiÜkfr~ A

(Bh. Pra.)

Kamal has Madhur, Tikta, Kashay Ras with sheet Virya and Madhur Vipak.
Kamalnaal is termed as Mrinaal.
Properties of this Kamalnaal are –
e¿,kkya 'khrya o";ka fiÜknkgkL=fn~ xq:A
nqtZj Loknqikd"p LrU;kfuy dQizne~AA
(Bh.Pra.)

**Latin Name**: Nelumbo nucifera

**family**: Nymphaeaceae
**Kshara**

Importance of application of Kshar in words of Acharya Sushruta is –

\[kl=\text{kuq}‘kk:\text{=}sH;\% \{kkj\% iz/\text{kkure}\%A \quad 1\frac{1}{4}q-1w- 1\frac{1}{2}\]

Specification of Kshara are

\[\{kj.kkr~ \{k.kuk\}k \{kkj\%A \quad 1\frac{1}{4}q-1w- 1\frac{1}{2}\]

Properties of Kshara are quoted as

\[f=nks\% k’u\%k’qDyRokr\% lSE;\%A \quad rL; lSE;L:kfi lrks ngrupunkj.kkfn\’kDrfjo\%k\]

\[vkUX;k;kS\%kf/kkq.kkHkww;’BRokr~\] dVqd \[m’;krh\{kkksz ipkuks foy;u A \quad 1\frac{1}{4}q-1w- 1\frac{1}{2}\]

Out of two types of kshar (Pratisarniya and Paniya), Paniya kshar is used for internal application – The kshar should be.

u vfrhr[\{k u vfr’eq u vfr’kqDy \[y’l.kuluiP];yfo;\];Un f’ko ‘kh?kz-----------A \quad 1\frac{1}{4}q-1w-1\frac{1}{2}\]

\[kkjLrq ikpuk\% losZ jDrfiRkdjk% lik%A \quad 1\frac{1}{4}q-1w- 4\frac{1}{2}\]

Considering properties of Kamalnaala and Kshar, the compound formed i.e. ‘Kamalnakshar’ can be used in graphit state of Raktaka i.e. for dissolving the emboli in pulmonary embolism.

**DISCUSSION**

According to Ayurvedic view, thrombus is the state of Raktaka with the contamination of Kapha. From this state of formed thrombus, when some part releases out, propagates through the circulatory mechanism by Vata. In body where there is site of srotovaigunnaya (khavaigunnaya), it accumulates there and whenever is the occurrence of Doshdyusha Samanchna, embolism develops. Aetiological factors like abhojana, atibhojan, vishnashan, vegvigitala, daurbalya etc. leads to Jathraghimandya. Due to Mandata of Jathraghaira problems get created in pachan of ahar which leads in formation of Amayukta Rasadhut. Due to kshay of Rasagin, next forming raktdhatu is also amayukt, that it is not formed in its normal form, which increases heaviness and viscosity of blood. (i.e. increases picchilta and guruta of blood) thus gradually disturbances get arising alongwith the circulatory fluid. There occurs increased tendency of coagulation.

With vitiation of vata, emboli circulates through the blood vessels and when there is localization of this emboli, pathogenesis occur. If his localization occurs in heart or pulmonary veins, then there is development of Cor – pulmonale or pulmonary embolism. And when it localizes in brain, there is development of Cerebro vascular accidents (CVA).

On the other hand due to improper formation of Rasadhut, there is an increase in sam Kapha. When this Sam Kapha migrates to lungs through vitiation of Vata in ure- Pradesh or in thoracic region, it produces Dysphoea and Haemoptyasis due to increased pressure. For this leading symptoms, some particular aetiological factors also necessary i.e. administration of Raja, Dhma, Rukshita, Pandu, Arati, Kshata, Kshaya etc. When localization of Sam kapha is in joints, there are chance of Arthritis and when it localize in upper part, Sinusitis may develop.

Side by side if this Sam kapha causes obstruction of Rasvaha strotas, causes Strotosang. Due to which there is Raskshaya and patient develops Rasadhutkshayajnya Daurablya. With the help of reference, quoted by Acharya Charaka in Raktpitta Chikitsadhayya.

\[dQkuqcU;ks :\{kJjiks fUkks d.Bkxrsk;kn~ xz fkrs iz;ksx% A \quad jDrl; jDDr;\{kkjks nh;r .o jDrfiRss AA \quad 1\frac{1}{4}p-fp- 2\frac{1}{2}\]

Which explains, the curative purpose of Grathitha raktpitta with the Kshara of Kamalnaala. Ksharas are contraindicated in Raktpitta, since they are of tikshna nature. (as told by Acharya Sushrut) Then it is noticeable that why the Kamalnaalkshara is used for dissolution of kshara at the site of Kantha ? For this, an explanation is given by Acharya Chakarpuri, that.

\[jDrfiRglRoizHkko;kkjks HkoR; so jDrfiRg\% A \quad su rh\{kkfu nzO;kf.k ifjR;T;ksRiyuknhU; so \{kkjkrFZekg A \quad uuq mRiynhukefXunkgkPNkrRoeR;kr;so A \quad 1\frac{1}{4}p\% fR; k\]

That means, due to Raktpitthar prabhav of Utpalnakshara it acts as Raktpitthar agent. Though tikshna dravya are contraindicated as like Kshar in Raktpitta, but Kamalnaala is an exceptional drug where it play an important role in this subjects i.e.

1. Kamalnaala is sheetal in nature
2. Kamalnaala has Raktpitthar prabhav.

The Kshara prepared from Kamaalnaala, overcomes the nature and properties of the basic drug ie of Kamalnaala. It reduces the majority of tikshha and thus act as an Ideal Thrombotic agent, quoted by Vartik Kshirswamidatta that –

\[’khra tgfHkww;’Ba n\%ka lifn Ikserker~ A \quad 1\frac{1}{4}p\% dff.k\]

It means sheeta property overcome the dagdha due to predominance of somtwa (Soumyatwa). It means sheet with predominance of somatwa, overcomes the ‘dagdh.’ That is the thing present with Kamalnaalkshara by which it acts as an thrombolysing agent.

**CONCLUSION**

By above discussion, now we can focus on some summarized points, that the paper includes –

1. Comparative correlation between Grathitha Raktpitta and Cor pulmonale.
2. Also with Pulmonary embolism
3. Kamalnaala when prepared into Kshar, it becomes more effective with the view of curative purpose of
Grathit Raktapitta. That means it proves thrombolytic property on Grathita state of Rakta.

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