

STUDY OF VARIOUS SAMPRAPTI (PATHOGENESIS OF DISEASE) ACCORDING TO
AYURVEDA WITH THEIR APPLIED ASPECTS

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ABSTRACT

“Ayurveda” a word itself means the knowledge of life, it is whole body healing system. And to heal whole body its necessary to know micro level particulars of body and minute changes occur during diseased state of body. Ayurveda encourages certain lifestyles and natural therapies to regain or prevent balance between body mind, spirit and the environment. Ayurveda have special tools for diagnosis of disease and these tools comprise *nidanpanchak* which comes under *rog pariksha* (examination of disease) Key component of *nidanpanchak* is *Samprapti* (pathogenesis of disease). *Samprapti* holds almost complete view of disease, its cause, affected organ, affected *dosha* which helps to diagnose the disease its types and help to decide line of treatment accordingly. Most crucial step towards healing or subsiding disease is correct diagnosis. The way in which *doshas* get vitiated and the course it follows for the manifestation of disease is better explained in *samprapti*.

KEYWORDS: *Roga pariksha, Doshaprakop, Nidanpanchak, samprapti.*

INTRODUCTION

In Ayurvedic clinical practice while diagnosing the disease, Two type of examination is done- 1) *Roga Pariksha* (Examination of disease) 2) *Rogi Pariksha* (Examination of disease).

रोगमादौ परीक्षेत ततो नन्तरं औषधम् ।

ततः कर्म भिषक् पश्चात् ज्ञानपूर्वं समाचरेत् ॥ (च. सू. २०/२०)^[1]

Before giving any treatment (Medicinal or Surgical), *Vyadhi pariksha* (Examination of disease) should be done with the help of *Nidanpanchak* (5 tools of examination of disease) and then role and potency of medicine should be examined. Treatment should be done with *Shashtra-dnyan* (Knowledge of literature) and *Karmabhyas* (Practical knowledge).

यस्तुरोगं अविज्ञाय कर्मान्यरभते भिषक ।

अपि औषधविधानजः तस्य सिद्धिं यद्रच्छया ॥ (च. सू. २०/२१)^[2]

If any clinician gives medicine without examining and proper diagnosing the disease, it will not work properly in spite of his good knowledge regarding medicine. And if it is useful in the treatment it can be accidental effect, it will not work always.

So for proper Diagnose is of the disease we should know the whole n sole of the disease.

निदानं पूर्वरूपाणि रूपाणि उपशयस्तथा ।

संप्राप्ती श्चेति विज्ञानं रोगानाम पंचधा स्मृतम् ॥ (मा. नि. १/४)^[3]

Nidan, Hetu = Causative factor.

Purvaroop = Pre-Symptomatic features.

Roop = Signs & symptoms.

Upshaya-Anupashay = Subsiding and aggravating factors.

Samprapti = Pathogenesis of disease.

The origination and development of a disease is called pathogenesis.

These are the diagnostic tools of disease, which helps to know the perfect cause and factors involved in pathogenesis.

व्याधीजनक दोष व्यापार विशेषयुक्तम् व्याधिजन्मेह

संप्राप्ती (च. नि. चक्रपाणि टिका. 1/11)^[4]

Samprapti tells how disease is formed including the entire process right from the exposure of causative factors to occurrence of signs and symptoms of the disease.

यथा दुष्टेन दोषेन यथाचानूविसर्पता ।

निवृत्तिः आमयास्यासौ संप्राप्तीः जातिरागती॥ (अ.ह.नि.

१/८)^[5]

1) यथा दुष्टेन दोषेन.....

How doshas get vitiated?

Types of vitiation of Doshas

A) *Prakrut – Vikrut Doshaprakop*

❖ *Prakrut Doshaprakop* =

वयोऽहोरात्रिभुक्तानां तेऽन्तर्मध्यादिगाः क्रमात् । (अ.ह. सू 1/8)^[6]

	Vata वात dominance	Pitta पित्त dominance	Kapha कफ dominance
Age	Childhood बाल्यावस्था	Middle age तारुण्यावस्था	Old age वार्धक्यावस्था
Day	Morning	Afternoon	evening
Night	Early night रात्री आदी	midnight रात्रीमध्ये	Late night रात्रीअन्ते
Digestion time	Gastric phase परिपाक काल आदी	Intestinal phase परिपाक काल मध्ये	Colonic phase परिपाक काल अन्ति

चयप्रकोपप्रशमा वायोग्रष्मादिषु त्रिषु ॥

वर्षादिषु तु पित्तस्य, श्लेष्मणः शिशिरादिषु । (अ.ह.नि. 12/24)^[7]

	चय (Accumulation of Doshas)	प्रकोप (Excessive aggravation of Doshas)	प्रशम (Auto pacification of Doshas)
वात दोष	ग्रीष्म (Summer)	वर्षा (Rainy season)	शरद (Autumn)
पित्त दोष	वर्षा (Rainy season)	शरद (Autumn)	हेमन्त (Early winter)
कफ दोष	शिशिर (Winter)	वसन्त (Spring)	ग्रीष्म (Summer)

B) स्वतंत्र - परतंत्र दोषप्रकोप

❖ स्वतंत्र दोषप्रकोप - अनुबंध

Vitiation of doshas by themselves, occurs due to increased or decreased qualities of that Doshas itself. This is *Swatantra* (independent) *Doshaprakop*.

बहुपित्त कामला- पित्त प्रकोप - स्वतंत्र

Here elevation of *Pitta* is due to increase in its own *Guna*

" विपरित गुणै देश मात्राकालोपपादितैः ।

भेषजेर्विनिवर्तन्ते विकासः साध्यसम्मताः ॥" (च. सू 1/61)^[8]

Understanding of this *Doshaprakop* is important in Treatment.

Treatment of *Swatantra Doshaprakop* = Taking into consideration of *Desha* (place), *Kala* (Time), *Matra* (quantity) Opposite treatment of *Gunas* (qualities) of Doshas should be done.

❖ परतंत्र दोषप्रकोप - अनुबंध

Vitiation of Doshas depends on other factors so, it is called *Paratantra* (dependent) *Doshaprakop*.

कफकर हेतू ऋतु काल कफज प्रतिशयाय कफज ज्वर

When season and time is favourable to *Kapha prakop* (elevation of *kapha dosha*) and any person taking *Kapha prakopak ahar vihar* (diet & activities which increases *Kapha*) then it leads to *Kaphaj Pratishay* (Cold) which in turn leads to *Kaphaj Jwar* (Fever), here question arises that what leads to *Jwar* which is disease of *Pitta prakop*.

This states the *Pratantra doshaprakop* because this *pitta prakop* is not due to qualities of *pitta* directly.

रुद्धपथ कामला (Obstructive jaundice) = Disease of *Pitta Prakopa*

Here *pitta prakop* is due to obstruction of *kapha* into place of *pitta* so while treating we have to treat obstructed *Kapha* initially

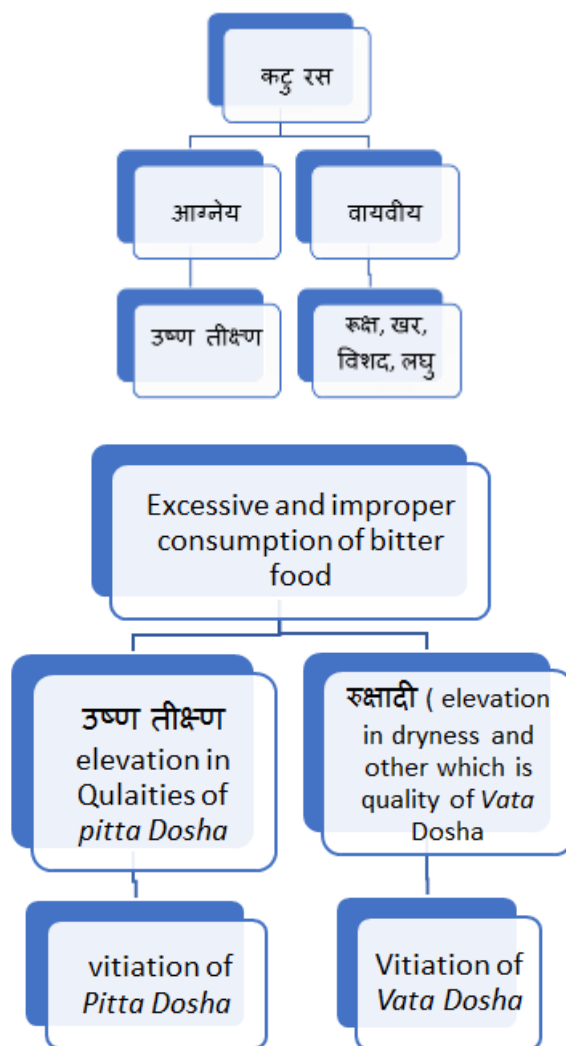
C) संसर्गः सन्निपातजन्य दोषप्रकोप

“शरीर दोषाणामेका अधिष्ठात्रीयानां सन्निपातः संसर्गो

वा समान गुणत्वात् दोषाहि दुष्णैः समानाः ॥ (च.वि 6/10)^[9]

❖ संसर्ग

Vitiation of 2 doshas independently with their own separate cause is *Sansarga Doshaprakop*.

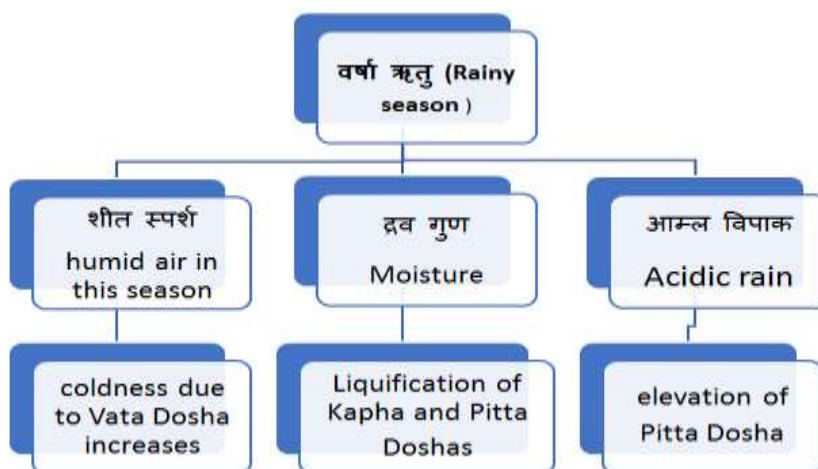


❖ सन्निपात

Vitiation of 3 doshas independently with their own separate cause is *Sannipatjanya Doshaprakop*.

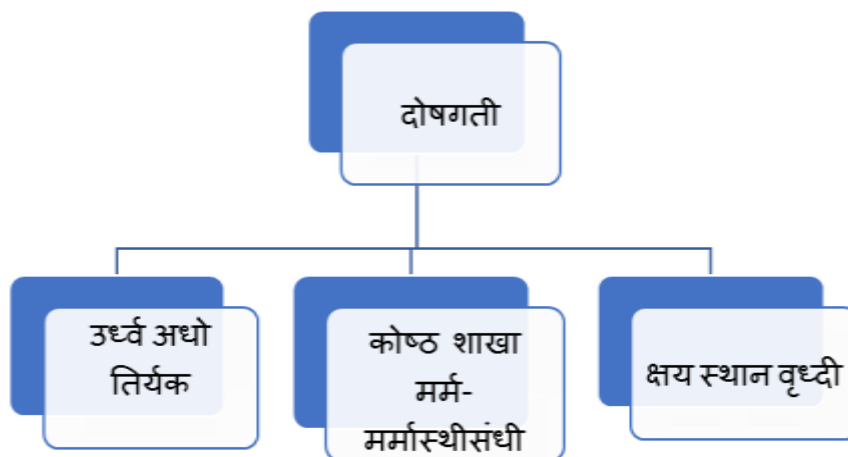
वर्षा ऋतु (Rainy season)

Already there is Dryness in human body in this season.



2) यथा च अनुविसर्पता

How elevated *doshas* circulate into the body, is also important for the knowledge of treatment. *Doshagati* explains the spread of doshas in different directions and symptoms occurred accordingly.



संप्राप्ती भेद

सङ्ख्याविकल्पप्राधान्यबलकालविशेषतः।

सा भिद्यते यथाऽत्रैव वक्ष्यन्तेऽष्टौ ज्वरा इति ॥ (अ.ह.नि 1/11)^[10]

सा संख्या प्राधान्य विधि विकल्प बलकाल विशेषैर्भिद्यते । (च.नि 1/12(1))^[11]

मा. नि-

- 1) संख्या
- 2) विकल्प
- 3) प्राधान्य
- 4) बल
- 5) काल

✓ संख्या संप्राप्ती

सङ्ख्या तावद्यथा- अष्टौ ज्वराः, पञ्च गुल्माः, सप्त कुष्ठान्येवमादिः॥ (च.नि 1/12(2))^[12]

Understanding the pathogenesis of disease based on no. of types and subtypes of that disease, which in turn will help in planning the treatment according to the manifestation of diseases in various forms.

Method of understanding pathogenesis of disease on the basis of numbering of a disease is based on some factors

- Type and predominant *Doshas* and their combinations involved in the formation of the disease
- Various forms of symptoms according to the types of disease is presented.
- Different directions of Movement of *Doshas* (*Vyadhi Marga*) in which disease is manifested.
- Peculiarities of manifestation of *Doshas*

व्याधीचे प्रकार(No. of types of disease) = संख्या संप्राप्ती

ज्वर(Fever) = 8 types

गुल्म (tumour) = 5 types

कुष्ठ (Skin diseases) = 7 types

विकल्प संप्राप्ती

दोषाणां समवेतानां विकल्पोऽंशांश कल्पना । (अ.ह.नि 1/10)^[13]

समवेताना अथवा प्रथक समवेतानां च इति पाठं

पुनर्दोषाणाम अंशांशबल विकल्पो विकल्पो ऽस्मिन्नर्थे । (च.नि 1/12 (5))^[14]

Understanding the Fractional variations occurring in *Doshas* involved in the causation of *Doshas* is called *Vikalpa Samprapti*.

Minute and micro variations occurring in the *Gunas* (qualities) of *Doshas* involved in Disease.

“यो यो येन यावताचांशेन तस्य समानः लेनेव तावता

चांशेन सदृशेन स तस्व वृद्धी कारणम् । (अ.सं. सू .1 इंदुटिका)^[15]

The part of food items which is similar to properties of body components that will lead to nourishment of that component only.

Same happens with pathophysiology of diseases, *Doshas* get involved with their specific *gunas* (qualities) and causes specific symptoms.

So the minute changes in body are necessary to be notice.

• Vatarakta (Gaut)

Ruksha (Dry foods) and *Chala* (excessive movements) Causes Vitiating of *Vata Dosh* causing *Gaut*, which is very specific causative factors so while giving the treatment we should have to give opposite treatment of vitiated qualities of *Doshas*.

• Rudhapatha Kamala (Obstructive jaundice)

Due to excessive consumption of *Ruksha*(dry), *sheet* (cold) food, *Ativyayam* (heavy exercise), *vegvidharan*

(suppression of natural urges) causes vitiation of *Vata Dosha* which get covered with *Kapha* and causes obstruction in the pathway of *Pitta*, which indeed causes symptoms of obstructive jaundice.

• **Bahupitta Kmla (Hepatic Jaundice)**

Due to excessive consumption of food which which vitiate the *Pitta Dosha* – *Pitta Dosha* increased by *Ushna* (hotness), *Tikshna* (piercing) properties causing extravasation of *Pitta* to all over the body from liver.

Having the knowledge of exaggerated qualities of *Doshas* helps to use specific drugs during treatment, its necessary to know *ansha-ansh samprapti* (micro level pathogenesis of disease).

✓ विधि संप्राप्ती

विधिर्नाम-द्विविधा व्याधयो निजागन्तुभेदेन, त्रिविधास्त्रिदोषभेदेन, चतुर्विधाः

साध्यासाध्यमृदुदारुणभेदेन || (च.नि 1/12 (4))^[16]

Vidhi samprapti is method of sub grouping diseases based on the specific factors. It is included under *sankhya samprapti*.

For example- On the basis of nature of prognosis (*Sadhya-Sadhyatva*)

Direction of bleeding in *Raktapitta* -

Urudhvag raktapitta- suksadhyatva (easily curable)

Adhog raktapitta- krichrasadhyatva (difficult to cure)

Tiryag raktapitta- Asadhyatva (Incurable)

On the basis of type of *Hetu*

Neej- Due to manifestation of *Doshas*

Agantuj- Due to external factors-Trauma

✓ प्राधान्य संप्राप्ती

प्राधान्यं पुनर्दोषाणां तरतमाभ्यामुपलभ्यते।

तत्र द्वयोस्तरः, त्रिषु तम इति || (च.नि 1/12 (3))^[17]

स्वातन्त्र्यपारतन्त्र्याभ्यां व्याधेः प्राधान्यमादिशेत् || अ.ह.नि 1/10 (2)^[18]

The Pathogenesis which is occurs due to Dependent (*Swatantra*) *Dosha* is called *Pradhanya Samprati*.

When there is vitiation of 2 or more *Doshas* at a time, the Independent or more vitiated *Dosha* is mentioned first, rather while treating the disease that *Dosha* should be treated Primarily.

Pathogenesis of independently manifested disease is *Pradhanya samprapti*.

For example. In *charak chikitsa* 4 i.e *Prameh Vyadhi chikitsa*

आस्यासुखं स्वप्नसुखं दधीनि ग्राम्यौदकानूपरसाः पयांसि।

नवान्नपानं गुडवैकृतं च प्रमेहहेतुः कफकृच्छ सर्वम् || (च.चि 6/4)^[19]

While explaining the causative factors of *Prameha Vyadhi* -All causes are causative factor for vitiation of

Kapha Dosha, It states that *Kapha* is Primary *Dosha* here, and it should be treated first.

✓ बल संप्राप्ती

हेत्वादिकान्यायवैर्बलाबलविशेषणम्। (अ.ह.नि 1/11)^[20]

Bala Samprapti states the overall Strength of disease which based on the strength of factors involved in the *Samprapti*.

Nidan, Hetu = Causative factor.

Purvaroop = pre-Symptomatic features.

Roop = Signs & symptoms.

Upshaya-Anupashay = Subsiding and aggravating factors.

Samprapti = Pathogenesis of disease.

सपूर्वरूपाः कफपित्तमेहाः क्रमेण ये वातकृताश्च मेहाः।

साध्या न ते, पित्तकृतास्तु याप्याः, साध्यास्तु मेदो यदि न प्रदुष्टम् || (च.चि 6/56)^[21]

Kaphaj Prameha = *Sadhya*- good prognosis-will cured easily

Pittaj Prameha = *Yapya*- More efforts are needed to treat

Vataj Prameha = *Asadhyatva*- untreatable, impossible to treat

But if there is all Pre-symptomatic features are present in *Prameha* then *kaphaj* and *Pittaj Prameha* can become *Asadhyatva* (Untreatable).

✓ काल संप्राप्ती

नक्तन्दिनर्तुभुक्तांशैर्व्याधिकालो यथामलम् | (अ.ह.नि 1/10)^[22]

Pathogenesis of disease which states the changes in *Doshas* according to time change, that may be day, night or Seasonal changes, stages of Age and also time of digestion.

For Example

Visham Jwara (Malaria)

सन्तत-Continuous- Remittent

सतत-

Double quotidian- two peaks per 24 hr

अन्येदृक् -Quotidian- 1 peak per 24 hr

तृतीयक -Tertian fever- every 3rd day

चतुर्थक -Quartan fever- every 4th day

Tamak Shwas (Bronchial Asthma)- Vegavstha- Attacks of breathlessness

Avegavastha- Normal state if patient

Attack of breathlessness occurs at time when *sheet guna* (Coldness) get increased in environment which indeed increases *Kapha* of Body (mucus secretion).

This is helpful in the prevention of the disease and precise treatment.

प्राकृतः सुखसाध्यस्तु वसन्तशरदुद्धवः।
उष्णमुष्णेन संवृद्धं पित्तं शरदि कुप्यति।

चितः शीते

कफश्चैवं वसन्ते समुदीर्यते॥ (च.चि.3/42,43)^[23]

Fever that occurs in Vasant(spring) and Sharad(autumn) rutu (season) is easily curable because it is prakrut fever.

Kaphaj jwar in Vasant is prakrut because already there is aggregation of kapha and due to heat this Kapha start to melt.

And Pittaj jwar in Sharad is prakrut because already there is aggravation of Pitta naturally.

✓ Samanya- Vishes Samprapti

Without knowing the Doshaj types of disease, only having Information about the main Dosha involved in it is Samanya Samprapti

For Example

Whichever the (Jwar) Fever, Main pathogenesis occurs due to Pachak Pitta.

Prameha (Diabetis) -Kledak Kapha is the Main Dosha involved in the pathogenesis, no matter which Prameha it is (Vataj, Pittaj, Kaphaj).

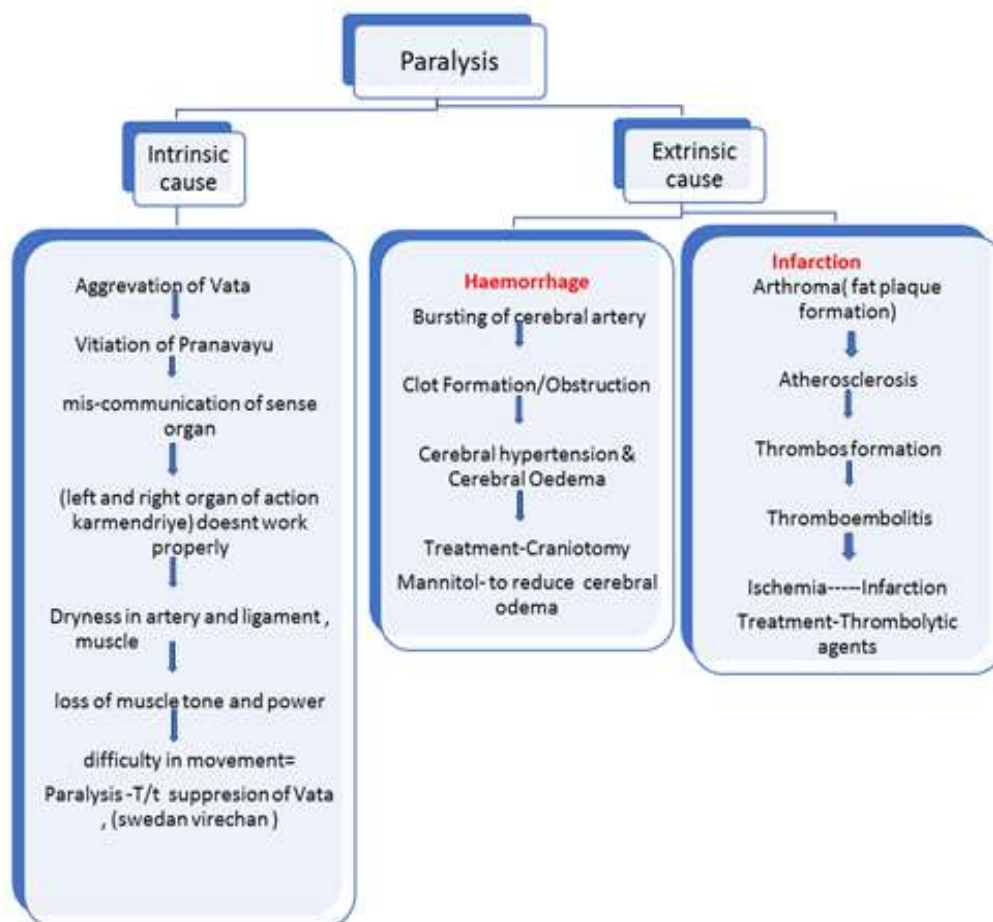
This is called Samanya Samprapti.

When there is different pathogenesis in different types of same disease it is called as Vishes Samparpti.

✓ Neej – Agantuj Samparpti

Neej samprapti	Agantuj Vyadhi
Unhealthy food and unhealthy habits Doshadushti (vitiation of Doshas) Disease manifestaion Treatment- Chikitsa according to Doshas involved.	Krumi (parasite, virus, bacteria),Pandemic, Injury Dushti at the site, Strotas i.e Vitiation of Dushya Which causes pain Which indeed leads to Dosha dushti Treatment- Emergency management, Affected organ is treated first, Pain management is primary aim.

For Example



DISCUSSION

As mentioned in (च.चि 6/7)^[24]

<i>Kaphaj Prameh</i>	<i>Pittaj Prameh</i>	<i>Vataj Prameh</i>
As leading Dosha of all <i>Prameha</i> is <i>Kapha</i> , And <i>kaphaj prameha</i> is also <i>Kapha pradhan vyadhi</i> Same <i>hetu</i> (cause), same treatment so its easy to cure.	When <i>Pitta</i> get involved in pathogenesis, the disease become difficult to handle, as treatment of <i>Pitta</i> and <i>Kapha</i> is different. <i>Pitta</i> dosha T/t- For ex-sheet and <i>Madhur dravya</i> which leads to <i>meda</i> and <i>kapha vruddhi</i> (aggravation)	All <i>pramehas</i> are said to be ending up with <i>Vata</i> predominance when not attended or treated properly. As treatment of <i>Vata</i> and <i>Pitta</i> is totally opposite. <i>Vataj prameha</i> 's are manifested with with predominance of tissue destruction or depletion, multiple organ failure Which should be treated with <i>snigdhadhi gunas</i> (to promote growth) which indeed increases <i>Meda</i> and <i>Kapha</i>

This shows the importance of *Samprapti* (involvement of Doshas) in Prognosis of disease.

This are the types of *samprapti* occurring in *Rajyakshma* which help us to not only detect the *dushya* involved, but also to know the exact phase of the same to plan line of treatment

राजयक्ष्मा

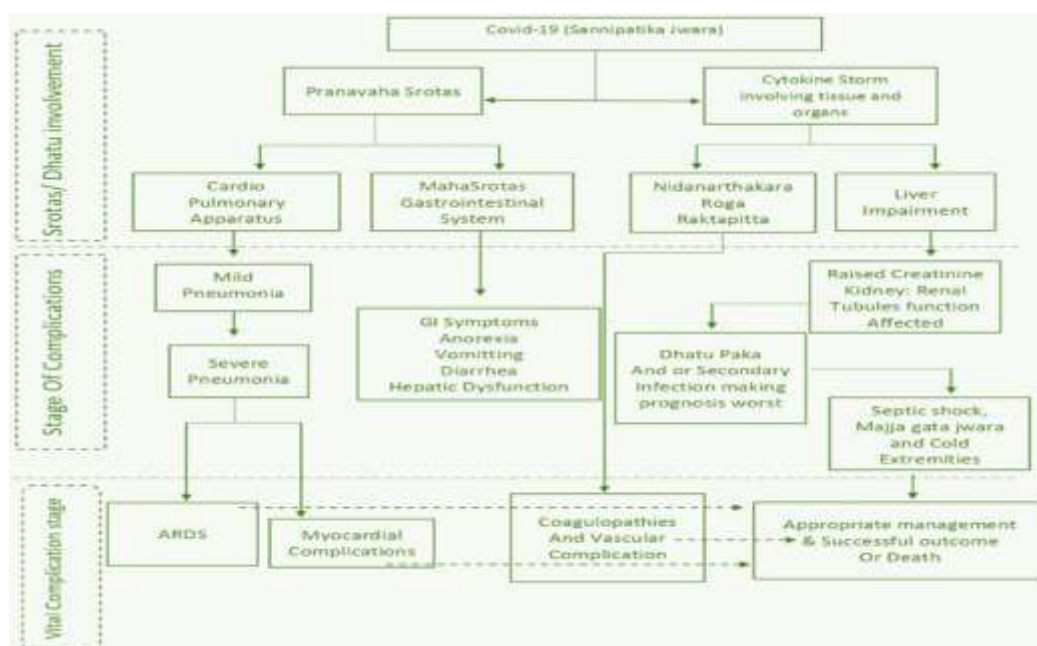
As mentioned in (मा. नि 10/2)^[25]

अनुलोम राजयक्ष्मा	प्रतिलोम राजयक्ष्मा
<i>Rasavaha Srotas</i> obstruction due to vitiated <i>Kapha</i> leads to depletion of tissue – no nourishment of successive dhatus - <i>Saptadhatu kshaya</i> - <i>Anulom Rajyakshma</i>	<i>Ativyavay</i> - <i>Vataprakop</i> - <i>Shukrakshay</i> - <i>Majja asthyadi dhatu kshaya</i> – <i>Rajyakshma</i>

Application of *samprapti* in context of covid and its complication

As covid is a viral disease and it has effect on all systems of human body. Primarily it acts on lungs and ends up

causing severe pneumonia. Then acts on GIT causing GIT disturbances, then liver impairment causing septic shock at the end. This pathogenesis is better explained with the help of *Samprapti*.

Chart^[26]

CONCLUSION

Samprapti explains entire process of how cause disease relation works upto manifestation of & exposure of sign and symptoms.

Factors of *samprapti* (cause, vitiated *doshas*, defected systems, vitiated *Agni*, *Dushyas*) and their involvement gives idea to decide line of treatment, so macro and microlevel of pathogenesis of any disease should be known to medical practitioner for correct management with all aspect.

Study of different types of *Samprapti* specially, useful for understanding pathogenesis in detail and applicable for diagnosis, prognosis & treatment of disease in routine practices.

Breaking the chain of pathogenesis is the key for treatment. Practitioner can decide diet, life style & medicine for correction & control of vitiated doshas accordingly.

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वा. सू = Vagbhat Sutrasthan

च.चि. = Charak Chikitsasthan

वा. नि = Vagbhat nidan

मा. नि = Madhav Nidan

च. नि = Charak nidan

अ.सं. = Asthang sangraha