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JANU SHOOL VYAVCHHED (DIFFERENTIAL DIAGNOSIS OF KNEE PAIN)

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INTRODUCTION
Ayurved is science of life which is serving mankind since thousands of years. *Ayurved* is complete science which owns it's own principles and understanding towards human body. *Ayurved* has its physiology, anatomy, along with peculiar diagnostic method and protocol. After pandemics of COVID-19 virus, limitations and hazards of modern medicine are vivid in whole world. People are searching alternative approach from conventional modern medicine. In such situation *Ayurved* has much potential to offer in maintaining health of the society. Now days People are willing to follow *Ayurved* principles and taking *Ayurved* consultation on for day to day health issues.

Janu shool (Knee pain) is common symptom that seen in daily *Ayurved* practice.

Janu shool (knee pain) is very common symptom that usually seen in daily *Ayurved* practice in all age group. For better relief to the patient, we need to make proper *nidan* (diagnosis) and *vyadhi vyavachhed* (differential diagnosis) of the *janu shool* symptom. *Janu shool* is seen from young children, women in different stage of life like teenagers, pregnant, lactating women, menopuse and geriatric patients also. Again *janu shool* is also common presentation in different pathological conditions like osteoarthritis, rheumatoid arthritis, gout arthritis, ligament tear, So for proper treatment, precise *Ayurved nidan* is very important. Along with lab investigation and radiological investigations, history taking and physical examination is immensely important.

Aim
To understand vyadhi vyavchhed(differntial diagnosis) of *janu shool*.(Knee pain).

Objective
To understand causes of knee pain from *Ayurved* and modern point of veiw.
 To understand *vyadhi vyavchhed* (differential diagnosis) of *janu shool*.
To make precise *nidan* (diagnosis) and *chikitsa* (treatment) accordingly.

Method
To understand exact cause of *janu shool,* we have to differentiate clinically with application of *Ayurved* and modern principles collectively.

For every *janu shool* we have to analyse many factors including age, sex, occupation , *aashukari/ chirkari* (onset -acute/ chronic), *kal* (duration), *shool swabhav* (severity of pain), *lakshan samuuchhay* (symptom complex along with knee pain), *upshay* (reliving factor), *anupshay/ hetu* (aggravating factor) diurnal variation of pain.

By analysing all factors, we will come to conclusion where we can diagnose the *janu shool* symptom.

Modern Veiw
First we have to differentiate between acute and chronic knee pain.

Acute Pain (*Aashukari*)
1. Injury due to trauma leading to muscle ache, ligament injuries like strain or ligament tear. Affected joint can not bear weight, patient start limping. This can be confirmed by MRI scan.
2. Injury due to trauma leading to fracture which can be diagnosed by XRays.
3. Acute muscle spasm due to non traumatic cause.
4. Viral infections like chikungunya, dengue. In this condition patient show symptoms like fever, body ache, and polyarhtralgia. Generally CRP level is raised in acute knee joint pain along with dengue, chikungunya antibodies.
5. Heavy exercise or exertion is also routine cause of acute knee pain. Most of times it relives by rest.

Chronic Pain (*chirkari*)
1. Osteoarthritis
2. Gout arthritis
3. Rheumatoid arthritis

4. Tubercular arthritis
   As chronic knee pain is widely seen in practice, we have to differentiate above pathological condition with various aspects.

1.Age
Age is most important factor to differentiate(*vyavchhed*) *janu shool* as all age group show specificity towards knee pain.

Children – Knee pain correspond to nutritional deficiencies like calcium or vitamin D3.

Young adult – Vary their presentation from nutritional deficiency (osteoarthritis) to any external trauma, to disorder like Gout arthritis.

Osteoarthritis (OA)
This is very common in elderly patient. Patients feel pain on squatting position.

In osteoarthritis, knee pain is main symptom. It aggravates particularly with exertion and knee bending. On examination crepitation can be heard along with unilateral or bilateral knee joint swelling. Patients feel better with rest and hot fomentation. Radio graphically diagnosis can be confirmed with X-ray. Serum calcium and Vitamin D3 are at lower side.

In *Ayurved* point of veiw this can be considered as *dhatu kshay janya va*t *vyadhi* or *margavrodhaj vatvyadhi* called *sandhi gat vaat.*

In gout arthritis (GA), small joints are involved along with knee pain. History of high protein intake is important. Diagnosis is confirmed by Serum uric acid level. This condition primarily affect small joint then spread to other joint also.

From *Ayurved* point of veiw, gout arthritis can be considered under *vat* and *rakt* Pradhan *vikruti* called *Vat rakta.*

Middle aged adult
Along with osteoarthritis and gout arthritis, Rheumatoid arthritis is very common in this age group.

In rheumatoid arthritis, symptoms are quite different. Main symptom is polyarthritis having migratory pain which aggravates at morning, cloudy environment and at the night.

On examination knee is very warm and often associated with swelling. Generally no crepitation found. Diagnosis is confirmed by R.A. test and Anti CCP level. In this condition generally ESR is raised.

In *Ayurved*, rheumatoid arthritis can be considered as *Aamvat vyadhi.*

2. Sex
Females more often suffered with knee pain with different causes.

Teen age girls, pregnant women, lactating mothers, menopausal women suffer from knee pain frequently. Main cause of knee pain in such conditions is nutritional deficiencies like Serum calcium and Vitamin D3. Middle aged women especially pregnant or lactating women are suffered with knee pain due to inflammatory conditions like rheumatoid arthritis or gout arthritis.

Males are also suffered with knee pain due to nutritional deficiencies, habit like tobacco chewing or hard working occupations like farmers, factory workers.

3. Occupations
People having sitting job shows knee pain due to lack of exercise and faulty sitting posture. On the other hand hardworking occupation like farmers, factory workers, show knee pain due to heavy exertion and lack of nutritious diet.

Ayurved Veiw
While analysing *janu shool* from Ayurved point of Veiw , we have to differentiate according to ayurved principles.

Janu shool is considered as *vat vyadhi* in ayurved text. So dealing with any vat vyadhi we have to differentiate between *upstambhit* and *nirupstambhit vat vyadhi.*

Nirupstambhit vat vyadhi is also known as *dhatu kshay janya vat vyadhi.*In *nirupstambhit vaat vadhi, kshudha*(appetite), *mala* (defeacation) , *agni* (digestion) is normal.There is no *aama dosh* in the pathogenesis. Diagnosis like *Sandhi gat vat, asthi majja gat vat, Vat rakta* are very common in this condition. These are normally degenerative pathologies like osteoarthritis or gout arthritis.

Upstambhit vat vyadhi is also known as *margavrodhaj vàt vyadhi.* In this condition, there may be evolvement of *aama, kafa, pitta or Meda* in the pathology. In this condition *kshudha mandya* (loos of appetite), *mala avsthambh* (constipation), and *agnimandya* (digestive symptoms) are observed. Symptoms in this condition are aggravated at morning, cloudy atmosphere or at night. Diagnosis like *aamavat, vatrakta*, *urusthambh, medavrutt vata* are very common in this condition.

These are normally inflammatory conditions like Rheumatoid arthritis, Gout arthritis, Ankylosing spondylitis or psoriatic arthritis.

This concept can be summarised in following way

Janu shool (Knee pain)	*Nirupstambhit vat Vyadhi*	*Upsthambhit Vat vyadhi*
Nature	Dull (*alpavedna*)	Severe (*teevra*)
Pain increases	Evening	morning and night
Pain increases	By Exertion	By rest
Oil application	Reduces pain	Aggravate pain
Aama	Absent	May Present
Digestion	Generally Normal	Reduced
Ayurved Diagnosis	*Sandhi gat vat, vat rakta, ashtomajja gat vat*	*Aamvat, samvat, meda- kafa- rakta avrutta vat*
Modern diagnosis	Osteoarthritis, Gout	Rheumatoid Arthritis Psoriatic Arthritis

Hetu (cause of disease) is another speciality in the *Ayurved nidan panchak* where possible root cause of the knee pain is to be find out in every patient. This hetu is starting point of the pathology. That hetus should be stopped in order to reverse pathology and treatment is given according to hetu.

DISCUSSION
- *Janu shool vyavachhed* (differential diagnosis of knee pain) can be thoroughly and effectively done with *Ayurved* principles along with modern principles.
- Concept of *Nirupsthambhit* and *upsthambhit vatavyadhi* can be effectively implemented for *janu shool vyavachhed.*
- *Janu shool vyaachhed* can be understood by factors like age, Sex,and occupation.
- All modern conditions of knee pain can be diagnosed under *ayurved nidan* like *sandhi gat vat, vatarakta, Aamvat,asthimajja gat vat, asthi bhagna.*

REFERENCE
1. Madhav nidan Madhukosh teeka by Vijayrakshit and shrikanthadtata, edited by Dr. Bramhanand Tripathi published by chaukhamba Surbharati prakashan 2003.
2. charak samhita Ayurved Deepika teeka by Chakrapanidutta written by Vaidya Yadavji Trikamji Acharya Published by Munshiram Manoharlal Publication private ltd.4 th edition 1981.
3. Ahtang hruday sarvang Sundar teeka by Arundatta written by Pandit Sadashiv shastri, Published by Chaukhamba Surbharati Prakashan 1997.
4. Hutchingson's Clinical methods edited by Michael Glynn and William Drake 24th Edition 2018.