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Role of Agnikarma in tennis elbow

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Abstract
Tennis elbow or lateral epicondylitis is an extremely common injury, appearing in a large proportion of tennis players. Now days it is common among working people. It may be due to lack of sufficient food intake, over use of elbow joint, lack of intake of milk and milk products. It is kaphasthanagata Vata vyadhi, therefor Agnikarma is effective in the initial stage. Snigdha ahara and oushadha are to be consumed later for the complete cure of vatavyadhi. Agnikarma is cost effective and give result very soon. Observational study conducted at NRIP, Cheruthuruthy shows Agnikarma is very much effective in tennis elbow.

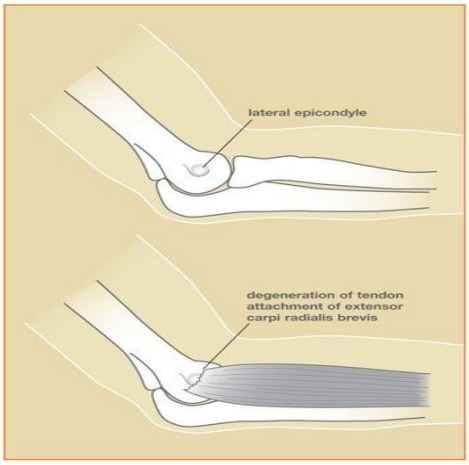
Keywords: Agnikarma, tennis elbow, NRIP

Introduction
Tennis elbow is the painful disorders of the forearm it may be developed due to non-specific inflammation or degeneration at the origin of extensor carpi radialis brevis muscle on lateral epicondyle of humerus. It is clinically diagnosed by sensation of pain and tenderness at the lateral epicondyle of humerus which aggravates during the restricted dorsi flexion of wrist and fingers.

On the basis of its sign and symptoms, tennis elbow can be correlated with the condition of *snayugata vata* (snayu correlated to tendon) described in Ayurveda. *Snayugata vata* gets developed when the *vata dosha* aggravates due to over exercise (*ativyayama*) and gets localized in *snayu* of *kurpara sandhi*. The *vayu* responsible for this function,that is *vyana vayu* is ultimately incapable to carry out the functions of *kurpara sandhi* (elbow joint) and *hasta pradesha* (forearms) smoothly. The features such as pain, stiffness, restricted movements etc develops in this region. These symptoms may also develop due to *kaphavritta vyana vayu*. Hence it is also considered as important causative factor for manifestation of *snayugta vata.*

Corelation
Snayugata vata 2. *Kaphavruta vyana*

Incidence
The annual incidence of lateral elbow pain in general practice is 4-7/1000 people with the peak age being between 35-54 years. For women, the incidence increases to 10% between the ages of 42 and 46 years. In general population the prevalence is 1-3% and affects men and women equally. More common in the fourth and fifth decades of life. Previously, the diseases was found in athelet especially tennis player. But in present day practice, it is known to affect painters, plumbers, carpenters, drivers etc. Research studies have shown that automobile workers, cook and even butchers get tennis elbow more often than rest of the population. The dominant arm is significantly more often affected than the non-dominant arm.



Anatomy
The elbow joint is an example of a hinge joint moving in one direction permitting only flexion and extension. The elbow joint is formed by three bones the humerus of the upper arm and the bones of the forearm, the radius laterally and the ulna medially. The joint is actually formed by the trochlea of the humerus articulating with the head of the radius. Although these are two sets of articulation, there is only one joint capsule and a large bursa to lubricate the joint. Bony bumps at the bottom of humerus called as epicondles.

In tennis elbow, Muscle and tendons of forearm are involved. Six muscles that control backwards movement of hands and fingers originate on lateral epicondyle. Repeated sterenous striking while the muscles are contracted and against force such as that occurring with the backward stroke in tennis causes strain on the tendinous muscle attachement and produce pain around the epicondyle. The tendon usually involved in

tennis elbow is called the Extensor Carpi Radialis Brevis (ECRB).Rest of the extensor muscles will usually bring about recovery.

Tennis Elbow

Lateral epicondylitis, commonly known as tennis elbow, is a painful condition involving the tendons that attach to the bone on the outside (lateral) part of the elbow. Tendons anchor the muscle to bone. The muscle involved in this condition, the extensor carpi radialis brevis, helps to extend and stabilize the wrist. With lateral epicondylitis, there is degeneration of the tendon's attachment, weakening the anchor site and placing greater stress on the area. This can then lead to pain associated with activities in which this muscle is active, such as lifting, gripping, and/or grasping. Sports such as tennis are commonly associated with this, but the problem can occur with many different types of activities, athletic and otherwise.[1]

Causes

Overuse – The cause can be both non-work and work related. An activity that places stress on the tendon attachments, through stress on the extensor muscle-tendon unit, increases the strain on the tendon. These stresses can be from holding too large a racquet grip or from "repetitive" gripping and grasping activities, i.e. meat-cutting, plumbing, painting, weaving, etc. Trauma – A direct blow to the elbow may result in swelling of the tendon that can lead to degeneration. A sudden extreme action, force, or activity could also injure the tendon.

- Excessive pressure on radial nerve
- Lack of strength or flexibility in forearms muscles
- lack of strength in shoulder muscles
- Instability of elbow joint
- Poor techniques during sporting activities that put too much strain on the elbow joint.
  - Poor back hand techniques in tennis
  - Racket grip that is too small
  - Tight string
  - Playing with heavy wet balls
- Repetitive movements of hand and arms
  - Using screw drivers
  - Painting
  - Typing
- Continously making muscles and joints take heavy loads
- Other factors such as neck symptoms or nerve irritation

Nidana

1. Ahara
   - Excessive use of *Katu rasa* (pungent) i.e, Pickles etc
   - Use of *Ruksha ahara* (dry food)
   - Lack of intake of *snigdha ahara* i.e, Milk and Milk products
   - Untimely food I.e, mostly late food
   - Lack of intake of sufficient quantity of food
2. Vihara
   - *Ativyayama* (over exercise)
   - *Prajagarana* (night awakening)
   - *Vega sandharana* (Control of natural urges)
3. Manasika; *Chinta,Soka,Krodha,Bhaya*

Symptoms

Pain is the primary reason for patients to seek medical evaluation. The pain is located over the outside aspect of the elbow, over the bone region known as the lateral epicondyle. This area becomes tender to touch. Pain is also produced by any activity which places stress on the tendon, such as gripping or lifting. With activity, the pain usually starts at the elbow and may travel down the forearm to the hand. Occasionally, any motion of the elbow can be painful Most common symptoms of tennis elbow is pain on outer side elbow and down the forearm.

Pain may be persistent or only when lifting things. The elbow may also swell, get red, or feel warm to touch and severe pain while holding things, turn your hand or swing your arm.

- Pain get worsen when shaking hands or squeezing objects
- Dull ache when at rest
- Pain in front or behind the ear on affected side
- A pin when opening finger
- Soreness around the affected elbow bump
- Difficulties and pain when trying to grasp objects especially with the arm stretched out
- Weak grip

Types

1. **Sudden Onset**: occurs in a single instance of exertion such as a late back hand where the extensor of the wrist becomes strained. This is thought to correspond to micro fearing of tendon.
2. **Late Onset**: this normally takes place within 24-72 hours after an intensive item of unaccustomed wrist extension. Eg; tennis player using a new racket or even a person who has spent a weekend doing typing/shorthand.

Examination

- Look for redness, swelling on lateral side of elbow
- Palpate to feel the extent and correct spot of pain

Cozens Test

- Ask the patient to flex the elbow to 90
- Pronate and flex the hand / wrist fully
- Support the patients elbow. Ask him to extend the wrist against your resistance
- Pain is produced at the Lateral epicondyle and may be referred down the extensor aspect of the arm.

Milles Manoevre

Patient's wrist is passively flexed when his forearm is pronated. This gives rise to tremendous pain on the attachement of the common extensor tendons.

Tests

- X-Rays – rule out arthritis of elbow
- MRI – neck related problems, possible herniated disk or arthritis on neck
- EMG (electromyography)-rule out even compressions

Ayurvedic Treatment

Acharya Susruta had advocated various treatment modalities such as *snehana*, *upanaha*, *Agnikarma* and *bandana* for *snayugta vata*[2]. Among these *agnikarma* seems to be more effective in providing distinct and instant relief.

Procudure of Agnikarma

After taking written informed consent, *Agnikarma* is done. The affected part is applied with *triphala kasaya* and wiped up with

sterilized gauze piece. *Agnikarma* in the form of *samyak twak dagdha* (therauptic superficial burn) was done by making multiple dots in circular area where maximum tenderness is felt. Red hot *pancha loha salaka* is used for *Agnikarma*. After procedure *kumara*(Aloe vera) pulp was applied on burn sites followed by *haridra* powder. Patient is advised to apply *haridra* powder frequently which reduces pus formation as well as skin discolouration.

Discussion

Tennis elbow, as per Ayurvedic perception this condition may develop with the vitiation of *vata* with *anubandha of kapha dosha* (one of the responsible factor for production of *ama* and *srotovaiguna*) *vata a*nd *kapha doshas* have been considered the important factor for causation of *sotha* and *soola* in the body. To treat such condition, *Agnikarma chikitsa* is indicated as a best treatment modality. Therefore to specify the vitiated *vata* and *kapha dosha*, *agni karma* was done which helped to reduce the *sotha* and *soola* by virtue of its opposite qualities such *ushna (*hot), *tikshana*(sharp), *sukshma* (finest) and *asuhukari* (quick acting).

Probable Mode of Action

In the process of *Agnikarma*, transferring heat to *twak dhatu* and gradually to deeper structure was done with the help of a red *panchaloha shalaka* which would have acted eventually to specify *ama dosha* and *sroto vaigunya* and consequently rendered relief in symptoms of *sotha* and *soola.* The temperature and pain is of same spinal thalamic tract, transmit both temperature and pain into higher center. So to decrease pain we use the idea of temperature manipulation such as *agnikarma, Kizhi*,oil application (*taila daha*) etc. In *Agnikarma* we use heat that too by eliciting maximum point of tenderness. it is very effective in elbow pain.

As it is a vatavyadhi, the etiology of the disease is similar to vatavyadhi nidana. Most common causes of Tennis elbow are:

1. Intake of pungent food
2. Lack of sufficient food intake Lack o usage of milk and milk products
3. Late food
4. Over exercise

Modern description always point out only one reason i.e., over exercise and use of elbow joint. But other reasons are also to be considered.

The disease occurs in *kaphasthana*. As per treatment principle the *dosha* of own area is to be specified at first then the *dosha* encroached.

Role of Agnikarma

Contemporary medicine treatments can only give temporary relief. The result of injection will last for 6 months.Most of the other treatment are time consuming and costly. Here *Agnikarma* plays major role.*Agnikarma* is found very effective in tennis elbow. It is to be performed in the initial stage.Oil application will enhance the severity at the initial stage. Dry heat or *lepa* is to be done first. *Valuka sveda*, *Kulutha pinda sveda* etc are benefited. *Kolakulathadi choorna* with *dhanyamla* can be applied externally. These treatments need more time. But if we perform *agnikarama,* sudden relief will get soon.

After *agnikarma, Snigdha ahara* and *oushadha* are prescribed to the patient.*Ksheera Kwatha*, *ghrita* preprations, oil application etc plays important role after *agnikarma*. Over use of any part of the body is to be controlled.Timely food intake, consumption of food in sufficient quantity, use of milk and milk products, moderate exercise etc are advisable daily to prevent vatavyadhi. *Agnikarma Treatement* is cost effective and is not time consuming which is the highlight of this procedure.

Conclusion

Use of milk and milk products daily reduces the chances of degeneration. Habits and routine should also be revised as per Acharya's advices. Hita ahara on time and proper quantity will yield health." 'You' are what you eat seems worth remembering".

References

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