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## Research Article

### ROLE OF AGNI KARMA IN SNAYU VIKARA W.S.R. TO TENNIS ELBOW

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#### ABSTRACT

The Tennis Elbow is likely to be the most common insertional tendinopathy of the human body and is found to be associated with some particular occupations and life style. No such disease has been mentioned in the Ayurvedic text. Here in the OPD of R.G.G.P.G.A.C. & Hospital, we have a very good no. of patients of Tennis Elbow, who don't get relief by the conservative management and also do not want to go for Local anesthetic and hydrocortisone. And also it is found that Local anesthetic and hydrocortisone is not a standard treatment for these patients and the surgery is beyond the capacity of the patients of a developing country like ours and also has its own risk. In *Sushruta samhita*, *Agnikarma* has been mentioned for disorders of *Snayu* (ligaments and tendons), *Asthi* (bone), *Sandhi* (joints). In Ayurveda, *Snayu Vikara* can be correlated with the condition of tennis elbow. This therapy provided considerable relief in pain and movement of the elbow joint. Therefore, a study has been designed to understand this disease on Ayurvedic principles and to establish a standard treatment, which can cure this disease or provide long term relief and within the reach of common man and without any side effect.

**KEY WORDS:** *Agnikarma*, *Snayu Vikara*, Tennis Elbow.

#### INTRODUCTION

The Tennis Elbow is likely to be the most common insertional tendinopathy of the human body. But only 5-8% people are tennis players. Politicians shaking hands, violin players, surgery staff, secretaries, and house-wives can also develop a Tennis-Elbow<sup>[1]</sup>. Most of the affected people get this problem due to their jobs. In the present study maximum female patients are house-wives and maximum male patients are laborers<sup>[2]</sup>.

As far as *Nidana* are concerned, all the *Vata Prakopaka Nidana* can be taken as *Nidana* of Tennis Elbow and according to modern science overuse of tendon of extensor origin or sudden trauma leads to Tennis Elbow<sup>[3]</sup>.

The cardinal symptom of Tennis Elbow is pain on the outer aspect of elbow joint which may radiate to forearm and hand. As certain movements of elbow and wrist joint are painful, patient find it difficult to do his/her daily routine work like turning a door-knob, etc. The pathogenesis of Tennis Elbow is still debated but at the histopathological level it is found that it is a degenerative disorder<sup>[4]</sup>.

As far as management of Tennis Elbow is considered, no standard, safest, or perfect treatment is available in modern sciences. Patients are first managed

conservatively by NSAID, refractory patients are given steroid injection which have their side-effects in long run. The patients who do not respond to injections also have to go for surgical intervention<sup>[5]</sup>, which is not affordable to every patient and can also lead to complications like postero-lateral instability of elbow joint.

Therefore, in present study a sincere attempt has been made to find such a modality of treatment which can give relief to the patient without complication and also which is within reach of a patient of a developing and poor country like India, in the form of Agni-Karma therapy, a para-surgical procedure mentioned for the treatment of *Vata* and *Kaphaja vyadhi* in the classics of Ayurveda<sup>[6]</sup>.

Agni-karma is in practice as a therapeutic measure since *Vedic* period and gained supremacy during the period of *Acharya Sushruta*. It's supremacy has been established on it's vivid efficiency. Even in *Charaka Samhita*, which is a main treatise of medicine, Agni karma has been employed for various ailment as a line of treatment<sup>[7]</sup>. In many of *Vatik* disorders, Agni karma is indicated as a therapeutic measure. Hence, after evaluating all the pros and cons of the above

description Agni-karma was selected for the present study.

The study was designed as a comparative study to assess the efficiency of two procedures in regard to management of Tennis elbow.

### AIMS AND OBJECTIVES

1. To study the aetio-pathogenesis of Tennis Elbow in the light of both Ayurvedic and Modern perspective and influence of life -style on the disease.
2. To estimate the efficacy of *Agnikarma*.
3. To provide a better modality of treatment to the patients than standard treatment given by modern orthopedic surgeons i.e. LAHC

### MATERIALS AND METHODS

The study was exclusively based on clinical trials. A detailed Performa was prepared to study the patients as well as the disease. The patients attending the O.P.D. and I.P.D. of the R. G. Govt. Ayu. P.G.College and R.I.Hospital, Paprola were selected irrespective of their sex, cast etc. Patients of age group 20-60 yrs. were selected as this disease is prevalent in 4<sup>th</sup> and 5<sup>th</sup> decade of life.

#### Criteria for selection of the patients

Patients were diagnosed mainly on the basis of signs and symptoms found in Tennis elbow like

- Pain on the outer side of the elbow jt.
- Radiation of pain towards forearm or hand.
- Toda (Pricking sensation)
- Tenderness
- Inability to do daily routine work.
- Cozen's test
- Mill's maneuver

Routine hematological tests and radiographs of elbow jt. were performed to exclude other pathologies. Patient who were willing to undergo trial, were only registered.

#### Criteria for Exclusion of the patients

- Patients not willing to undergo trial.
- Patients below 20 years and above 60 years of age.
- Patients of *Pitta* dominating *Prakriti*, *Alpa satva*, *Avar Samhanan*, pregnant women.
- Patients having joint disorders (viz. RA, OA, GA of elbow joint), Tuberculosis, Diabetes or having associated some other constitutional disorders etc.

#### Management

After the diagnosis, the patients were randomly categorized into two groups

#### a) *Agnikarma* (Trial group)

Total 4 sittings- Interval between subsequent visits was of 7 days. *Bindu* type therapeutic *Dagdha* were done

#### b) LAHC (Standard Group)

Standard treatment of Tennis elbow i.e. Local anesthetic and hydrocortisone was given to the patients in 3 sittings. The interval between subsequent visits was of 10 days.

#### A) *Agnikarma* Methodology

##### 1. *Purva Karma*

A patient who was considered fit for procedure was prepared accordingly. Patients were counseled and explained about the procedure and written and informed consent was taken. Before starting the procedure, a specially made, *Panchdhatu Shalaka*<sup>[8]</sup> (Designed by Professor P.D. Gupta) of *Bindu* type projection, gas stove, artery forceps, sponge holding forceps, gauge pieces, cotton, *Ghrithkumari* pulp, *Murchhit Tiltail*, adhesive tape, cotton bandage, all were kept ready. After taking all these things into consideration, the patients were taken for *Pradhana Karma*. Most tender spot of the elbow joint was thoroughly cleaned and *Abhyanga* was done with *Murchhit Til Taila* for 15 minutes in the direction of hairs. Before main procedure patients were advised to take some *Picchila* diet in previous night.

##### ii) *Pradhana Karma*

Patient was kept in supine position. The *Panchadhatu shalaka* was heated upto red-hot and *Bindu* type *Dagdhas* were made on the most tender spot of the elbow joint, till the *Samayaka twaka dagdha Lakshanas* occurred<sup>[9]</sup>. Each *Dagdha* was followed by simultaneous application of *Ghrithkumari* pulp to alleviate burning sensation<sup>[10]</sup>.

##### (iii) *Paschata karma*

Immediately after completion of the procedure the *Vrana* was dressed with *Ghrithkumari* pulp with the help of gauze pieces and adhesive tape or cotton-bandage. During the procedure patient was carefully observed for any untoward complication. Patients were advised to keep the area dry, clean, avoid exertion, trauma and unwholesome diet. Patient was called on next day for follow up, to review the local condition and dressing with *Ghrithkumari* pulp.

**Criteria for Assessment**

The improvement in the patient was assessed mainly on the basis of relief in the cardinal signs and

symptoms of the disease. To assess the effect of therapy objectively, all the signs and symptoms were given scoring depending on their severity as below:

Criteria	Grade-0	Grade-1	Grade-2	Grade-3	Grade-4
Pain	No pain	Pain at work	Mild pain at rest	Moderate pain at rest	Severe Pain at rest
Pricking Sensation (Toda)	No Toda	Occasional +ve	Constant mild	Constant moderate	Constant severe
Inability to do specific tasks (dourbalya)	Can't do specific tasks	Take rest in b/w specific tasks	Rest Very often	Can't do specific tasks	-
Radiation of pain	No Radiation	Upto forearm occasion.	Upto forearm cont.	Upto hand	-
Tenderness	No	Pain on deep palpation	Pain on light palpation	Don't allow to touch	-
Cozen's test	No pain against any resistance	Pain against hard resistance	Pain against mod. resistance	Pain against light resistance	-
Mill's maneuver	Not positive	Pain at full palmar flexion	Pain at mid palmar flexion	Pain at beginning of palmar flexion	-

**Statistical Analysis-** Mean, Percentage relief, S.D., S.E., 't', and 'p' values were calculated.

**Observation and Results****Criteria Assessing the Total Effect**

1. Cured - 100% relief in signs and symptoms.
2. Markedly improved-More than 75% relief in signs and symptoms.
3. Improved- 25- 75% relief in signs and symptoms.
4. Unchanged- Below 25% relief in signs and symptoms.

**Table 1: Overall Effect of Therapy- Trial Group**

Effect	No. of Patients	Percentage
Cured	01	10%
Markedly Improved	08	80%
Improved	01	10%
Unchanged	00	0%

**Table 2: Overall Effect of Therapy – Standard Group**

Effect	No. of Patients	Percentage
Cured	04	40%
Markedly Improved	06	60%
Improved	00	0%
Unchanged	00	0%

**Table 3: Comparative Study of Overall Effect of Therapies in Both Groups**

Effect	Trial Group	Standard Group
Cured	10%	40%
Markedly Improved	80%	60%
Improved	10%	0%
Unchanged	0%	0%

**Table 4: Comparative Study of Results in Both Groups**

Sr.	Cardinal Signs & Symptoms	Trial Group Mean Score		% age relief	Standard Group Mean Score		% age relief
		B.T.	A.T.		B.T.	A.T.	
1.	Pain	3.7	0.4	89.19	3.6	0	100
2.	Pricking Sensation	2.86	0.43	84.97	3.6	0.57	84.17
3.	Radiation Of Pain	2.6	0.14	94.62	2.75	0	100
4.	Loss of strength	2.1	0	100	2.11	0	100
5.	Tenderness	2.2	0.2	90.99	2.0	0.1	95
6.	Cozen's Test	2.3	0.5	78.26	2.2	0.3	86.36
7.	Mill's maneuver	2.8	0.4	85.71	2.7	0.1	96.30

**Table 5: Comparative Study of Results in Two Groups**

SN.	Cardinal Signs & Symptoms	Trial Group					Standard Group				
		SD	SE	't'	'p'	% relief	SD	SE	't'	'p'	% relief
1.	Pain	0.70	0.22	15.37	<0.001	89.19	0.52	0.16	22.03	<0.001	100
2.	Pricking Pain	0.79	0.30	08.78	<0.001	85	0.82	0.31	09.72	<0.001	84
3.	Radiation Of Pain	0.53	0.20	12.14	<0.001	94.44	0.46	0.16	16.80	<0.001	100
4.	Loss of Strength	0.32	0.10	20.98	<0.001	100	0.33	0.11	19.09	<0.001	100
5.	Tenderness	0.47	0.15	13.41	<0.001	90.90	0.32	0.10	18.99	<0.001	95
6.	Cozen's Test	0.79	0.25	07.21	<0.001	78.26	0.57	0.18	10.58	<0.001	86.36
7.	Mill's maneuver	0.82	0.26	08.82	<0.001	85.71	0.52	0.16	15.91	<0.001	96.30

**Table 5: Showing the Comparative Mean Score of Assessment criteria (Trial Group/ Standard Group)**

S.No.	Signs And Symptoms	S.E.	't' value	'p' value
1.	Pain	0.3667	0.8182	>0.05
2.	Pricking Sensation	0.6864	0.5828	>0.05
3.	Radiation of pain	0.4282	1.16	>0.05
4.	Loss of Strength	0.2000	1.000	>0.05
5.	Tenderness	0.1000	1.000	>0.05
6.	Cozen's Test	0.2700	0.3612	>0.05
7.	Mill's Maneuver	0.2906	0.6882	>0.05

## DISCUSSION

### 1. Pain

In term of % age relief standard group had better results than trial group with 100 % relief in pain, S.D. = 0.52, S.E. = 0.16, t = 22.03 and p < 0.001 while trial group shown 89.19 % relief with S.D. 0.73, S.E. = 0.22, t = 15.37, p < 0.001.

### 2. Toda

In case of *Toda*, patients of trial group and standard group showed almost equal effect of both therapies with 84 % relief, S.D. = 0.82, S.E. = 0.31, t = 9.72, and p < 0.001 in standard group and 85 % relief, S.D. = .079, S.T. = 0.30, t = 8.78, p < 0.001 in trial group.

### 3. Radiation of pain

In case of radiation of pain standard group showed better results than trial group with 100% relief in symptoms S.D. = 0.46, S.E. = 0.16, t = 16.80, p < 0.001 while trial group showed 94.44 % relief with S.D. = 0.53, S.E. = 0.20, t = 12.14, and p < 0.001.

### 4. Dourbalyata

Here, both trial group and standard group showed equal results i.e. 100% relief while standard group showed S.D. = 0.33, S.E. = 0.11, t = 19.09, p < 0.001 while trial group have S.D. = 0.32, S.E. = 0.10, t = 20.98 and p < 0.001

## 5. Tenderness

Here also standard group showed better results with 95 % relief S.D. = 0.32, S.E. = 0.10,  $t = 18.99$ , and  $p < 0.001$  while trial group showed 90.90 % relief with S.D. = 0.47, S.E. = 0.15,  $t = 13.41$  and  $p < 0.001$ .

## 6. Cozen's test

In case of Cozen's test patients of standard group showed better results with 86.36 % relief, S.D. = 0.57, S.E. = 0.58,  $t = 10.58$  and  $p < 0.001$ , while patients of trial group showed 78.26 % relief with S.D. = 0.79, S.E. = 0.25,  $t = 7.21$  and  $p < 0.001$ .

## 7. Mill's Maneuver

Patients of standard group showed better results with 96.30 % relief, S.D. = 0.52, S.E. = 0.16,  $t = 15.91$  and  $p < 0.001$ , while patients of trial group showed 85.71 % relief with S.D. = 0.82, S.E. = 0.26,  $t = 8.82$  and  $p < 0.001$ .

Over all effect of therapy wise standard group showed better results as 40 % patients were cured and 60 % patients were markedly improved while in Trial group 10 % patients were cured, 80 % were markedly improved and 10 % were improved.

## Follow up

During the period of follow up (1 month) results were found stationary.

## CONCLUSION

It is a disease caused by Vitiated *Vata* affecting the *Kandaras* (a type of *Snayu*) situated near *Koorpara Sandhi* (elbow joint). Statistically both the therapies are equally effective in the management of Tennis Elbow. No untoward effect of either Agni Karma or LAHC could be recorded. This disease is more common in people involved in occupation involving manual work. They

should adopt such measures so that the disease can be prevented. Tennis players should also learn the proper technique to avoid strain on extensor muscles. It can be concluded that LAHC is better than Agni-Karma in immediate results but Agni-Karma can provide better modality of management of Tennis-Elbow but it requires further work on it.

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**Panchadhatu Shalaka  
being heated to Red Hot**



**Agropaharaniya**



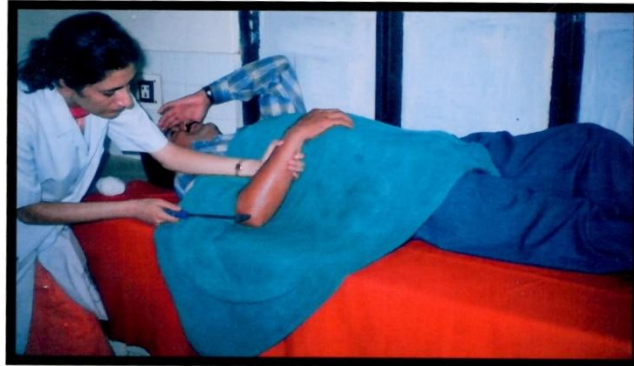
**Purva - Karma**



**Pradhana - Karma**



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