

## Original Article

## Short term outcome of conservative *versus* steroid injection in tennis elbow in eastern India population — a randomized control study

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Tennis Elbow is a common clinical entity. We have compared two different methods, conservative versus steroid injection for treating this condition. 24 patients were studied and shown a better clinical outcome in injection group.

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**Key words :** Tennis elbow, conservative, corticosteroid.

Tennis elbow is the inflammation of the tendons that are attached to the lateral epicondyle. It is also known as lateral epicondylitis<sup>1</sup>. It is mostly associated with repetitive activity of wrist and arm. Though the name is given Tennis elbow, only 8% patient actually plays tennis. People whose jobs feature the types of motions that can lead to tennis elbow include plumbers, painters, carpenters and butchers. In our OPD set up (Nil Ratan Sircar Medical College), we got a good number of patients having elbow pain and after clinical examination it is diagnosed as Tennis Elbow. It is most common at age 40<sup>2</sup>. By incapacitating the patient with elbow pain, Tennis Elbow can cause severe economic crisis. Prompt early recovery is highly needed in these patients. Now there is different type of treatment modalities available for managing Tennis Elbow. Among them conservative treatment and local steroid injection is most popular<sup>3</sup>. In our study, we will try to find out the effectiveness of both these methods in our set up and also comparing them.

### MATERIAL AND METHODS

All the patients were chosen from OPD. Total 24 patients were selected (age group 25-55) in the study after written consent form. There were few inclusion and exclusion criteria to select the patients for study and they were divided randomly into two groups [n=12].

**Inclusion Criteria :** (1) Pain on lat aspect of elbow for last 3 months. COZEN's test positive. Typically pain on forced dorsiflexion of wrist. Visual analogue scale is used to grade the pain severity<sup>4</sup>.

(2) Pain with wrist movement which hampers activity of daily living.

**Exclusion criteria :** (1) Diabetic patient, (2) local skin

disorder. (3) Neurological disorder. (4) Previous surgery on elbow.

Techniques 12 patients opted for local steroid injection. 40 mg of depomedrol diluted with 1% lignocaine is injected into Extensor digitorum brevis under aseptic condition.

12 patients opted for conservative treatment with analgesics, ultrasound massage and wax bath. Physiotherapy was given for 1 week<sup>6</sup>.

**Follow up :** Patients were followed up at 3 weeks and 6 weeks at OPD. Pain was graded by visual analogue scale (VAS). Grip strength, wrist movement, overall improvement in activity of daily living is noted<sup>2,7</sup>. Results were compared using statistical tests.

**Results :** Both the groups were matched regarding demographic pattern, elbow pain pattern, mean age and other factors. No patients develop anaphylactic reaction to injection. Rapid improvement in pain seen in follow up in steroid injection group (p=0.007). Improvement in functional status<sup>8</sup> is also noted in steroid injection group. Visual analogue scale also showed significant improvement. Overall the results showed that steroid injection group has significant early recovery.

### DISCUSSION

In this short term study, we have found that steroid injection in tennis elbow shows early significant improvement and patient can perform his/her activities for daily living earlier<sup>3,9</sup>. This early return of activity can evade the economic crisis. Rate of recurrence of elbow pain in future is similar in both treatment modalities. Another thing is cost, which is higher in conservative treatment due to multiple times visit to the physiotherapist. Some studies are there which describes that steroid injection in Tennis elbow can cause diminished collagen strength and tendon weakness and rupture<sup>4,10</sup>. But in our study we haven't found a single case with above mentioned feature. Perhaps good technique while giving injection is necessary<sup>6,10</sup>.

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#### CONCLUSION

Steroid injection is a good alternative to conservative methods<sup>7,8</sup> with early return of activity, and rapid improvement of pain and functional status.

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