SUMMARY

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CONCLUSIONS

SUMMARY AND CONCLUSION

Beecher (1975), stated that the perception of pain in rheumatic diseases is made up of two components, the original sensation resulting from the pathological changes and the psychic reaction caused by the sensation. Accordingly, when many lines of treatment were tried the response to any of these different modalities of treatment was a matter of individuality.

Acupuncture - the Chinese art of treatment-is now getting popularity in the treatment of painful rheumatic disorders not responding to other methods of treatment including non-steroidal anti-inflammatory drugs and physical therapy.

The analgesic effect of ultrasound therapy could be attributed to the direct action on the free nerve endings leading to elevation of pain threshold (Lehmann et al., 1958), and relief of muscle spasm (Fountain et al., 1960), through the resolution of waste products and resolution of inflammation by improving the local blood supply and relaxation of spastic muscles (Scott, 1976) and also by the temporary block and alteration in the conduction velocity in the peripheral nerves (Forster & Palastanga, 1981).

Frozen shoulder is very distressing and disabling, it effectively limits the function of the whole upper limb, requiring a changed lifestyle both at home and at works. This disability is compounded by the misery of sleepless night due to persisting pain.

Tennis elbow a clinical syndrome characterized by pain and local tenderness in the region of the lateral epicondyle of the humerus. However, the name tennis elbow is a misnomer because it occurs more commonly in non-atheletes than in tennis players.

The aim of this work is to compare the effect of electro-acupuncture and ultra-sonic therapy in treating soft tissue rheumatism, frozen shoulder and tennis elbow were the two representative examples considered in our study.

This study comprised 80 patients, 50 patients (62.5 %) suffering from frozen shoulder and 30 patients (37.5 %) suffering from tennis elbow. They were selected from the patients attending the out-patient clinic of Rheumatology and Rehabilitation department of Zagazig University Hospitals. They were 41 males (51.3 %) and 39 females (48.7 %), with a mean of 46.8 years and the duration of their complaint varied from 3 to 13 months and whose ages was ranged between 32 - 63 years.

The patients were classified into two groups on the basis of their clinical presentation, (group "A") comprised those complaining of frozen shoulder and (group "B") comprised those complaining of tennis elbow. Each group was further subdivided into two subgroups according to the line of treatment adopted.

Group "A" : Comprised 50 patients, 20 males (40 %) and 30 females (60 %) whose ages ranged from 32 to 59 years, with a mean of 53 s 4 years the duration of their complaint was ranged from 4 to 13 months and the lesion was right sided in 22 patients (44 %) and left sided in 28 patients (56 %).

Subgroup I: Comprised 25 patients (50 %), they were 11 males (44 %) and 14 females (56 %), whose ages ranged between 32 and 59 years and the duration of their compliant ranged between 6 and 13 months.The patients were treated with **electro-acupuncture** using seven acupuncture points known to be effective in treating the painful shoulder, for 20 minutes followed by active **R.O.M.** exercises, every other day for 6 weeks.

Subgroup II: Comprised 25 patients (50 %), they were 9 males (36 %) and 16 females (64 %), whose ages ranged between 35 and 63 years and the duration of their illness ranged between 4 to 12 months. Patients were designed to recieved ultra-sonic waves on the anterior, lateral and posterior surfaces of their affected shoulder continuous pulse, following the micromassage technique with intensity of 2 watt/cm2 treatment was given for five minutes per field followed by active (R.O.M.) exercises, every other day for 6 weeks.

Group "B" : Comprised 30 patients, 21 males (70 %) and 9 females (30 %), whose ages ranged between 33 to 62 years with a mean of 40.2 yeasrs and the duration of their illness ranged betwee 3 and 13 months.

Subgroup III : Comprised 15 patients (50 %), they were 11 males (73.3 %) and 4 females (26.7 %), their ages ranged between 35 and 60 years and the duration of their complaint was ranged from 4 to 14 months. The patients were given a 20 minutes session of electro-acupuncture. Using acupuncture points known to be effective in treating the painful elbow, every other day for 6 weeks.

Subgroup IV : Comprised 15 patients (50 %) they were 10 males (66.7 %) and 5 females (33.3 %) their ages ranged between 33 and 62 years and the duration of their complaint was ranged from 3 to 12 months. The patients were given a 10 minutes sessions of continuous ultra-sonic waves 2 watt/cm2 using the micromassage technique every other day for 6 weeks.

Through history taking was done for every patient with full general and local examination of the shoulder and the elbow joints. In addition to laboratory investigations and plain X-ray for the affected shoulder or elbow joints beside cervical and chest plain X-ray.

Assessment the response to treatment was done based on the following criteria :

Group "A" : Pain, tenderness, subjective shoulder stiffness and functional disability and passive range of shoulder joint movements.

Group "B" : Pain and tenderness.

Results of Treatment were as follow :

Patients of frozen shoulder showed that their was improvement in pain score in those treated with electro-

acupuncture and physical exercises (subgroup I) and also improvement in patients treated with ultra-sonic therapy and physical exercises. This improvement was significant in both subgroup ($P < 0.001$), but the better response was obtained in subgroup I specially in early cases. There also was improvement in the passive range of different shoulder movements. This improvement was significant in both sub-groups ($P < 0.001$), but the better response was obtained in subgroup II.

Patients of tennis elbow showed that there was improvement in pain score in patients treated with electro-acupuncture (subgroup III) and also improvement in patients treated with ultra-sonic therapy. This improvement was significant in both subgroups ($P < 0.001$), but the better response was obtained in subgroup III especially in early phase of treatment period and in early cases.

From this study it is concluded that both electro-acupuncture and ultra-sonic therapy were effective in relieving pain and improving the range of joint movements, but electro-acupuncture was more better as regard pain while ultra-sonic therapy was more better as regard improvement in The range of joint movements, which can be attributed to the mechanical effect of ultra-sonic waves.

Finally, acupuncture is considered a significant, easy and harmless method of treatment of soft-tissue rheumatism, but more work should be carried out to recognize the exact mechanisms of action of **acupuncture** in management of soft-tissue rheumatism.