# EFIC 2015 abstracts

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**EFIC5-1157 LATE-BREAKING POSTER SESSION I THE EFFECT OF SCENAR AND TENS (TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION) ON THE PAIN RELIEF IN PATIENTS WITH CHRONIC NECK PAIN** *Y. EUN[1], W. Choi[2] [1]family medicine, St. Vincent's hospital Catholic University of Korea, Suwon, Korea [2]family medicine, St. Mary's hospital Catholic University of Korea, Seoul, Korea*

**Background and aims**: Chronic neck pain is a common condition entailing the high cost of pharmacological treatment, but it has limited evidence of efficacy and side-effects. This study aims to examine the effectiveness of a new therapy, SCENAR therapy, on pain and disability in patients with chronic neck pain through comparison with Transcuteneous electrical nerve stimulation (TENS) therapy.

**Methods**: We studied 30 elderly patients with chronic neck pain of more than 3 months duration. The subjects were randomized into two groups receiving (1)SCENAR therapy or (2)TENS therapy (control); three times a week for two weeks. The patients were assessed before and after 2-week treatment using three measuring tools such as Numeric Rating Scale (NRS), Neck Disability Index (NDI), and Range of Motion (ROM).

**Results**: The SCENAR group showed significantly improved results in NRS, NDI, and ROM after intervention, as did the TENS group.($p<0.05$) The comparison of mean changes in the SCENAR group(12.36) before and after intervention showed superior results in the NDI when compared with the TENS group(3.950).

**Conclusion**: The findings show that both SCENAR and TENS are effective treatment for patients with chronic neck pain. Patients who underwent SCENAR had a significant improvement in Neck Disability Index (NDI) than the TENS group.

Table1. Comparisons of Pain Variables before and after Treatment

| | TENS | | | | SCENAR | | | |
|---|---|---|---|---|---|---|---|---|
| | Pre treatment | Post treatment | Mean improvement | P-value | Pre treatment | Post treatment | Mean improvement | P-value |
| ROM | | | | | | | | |
| Flexion | 65.36±8.65 | 73.93±10.03 | 8.571±13.51 | 0.024 | 60.91±8.01 | 71.82±9.02 | 10.00±13.78 | 0.011 |
| Extension | 57.86±10.87 | 61.79±13.10 | 3.929±14.03 | 0.292 | 62.73±11.91 | 71.36±5.95 | 8.64±12.06 | 0.017 |
| Lateral | 46.43±8.64 | 50.36±7.46 | 3.929±3.496 | 0.005 | 47.27±8.17 | 51.82±6.03 | 4.55±4.16 | 0.015 |
| Rotation | 86.07±6.84 | 88.21±3.72 | 2.143±3.780 | 0.063 | 90±0 | 90±0 | 0 | 1 |
| NRS | 4.57±1.60 | 2.71±1.59 | 1.857±1.834 | 0.006 | 4.91±2.02 | 2.18±2.18 | 2.73±1.85 | 0.003 |
| NDI | 17.61±6.60 | 13.66±7.75 | 3.950±5.170 | 0.01 | 21.25±10.20 | 8.89±5.46 | 12.36±10.89 | 0.008 |

Table 2. Mean improvement in NRS, NDI and ROM after 2 weeks of treatment.

| Outcome measure | Mean improvement ±SD (p-value of within-group comparison) | | | | Between-group difference† |
|---|---|---|---|---|---|
| | SCENAR(N=11) | | TENS(N=13) | | p-value |
| **ROM** | | | | | |
| **Flexion** | 10.91 ± 13.38 | (0.011)* | 8.571 ± 13.51 | (0.024) | 0.687 |
| **Extension** | 8.646 ± 12.06 | (0.017) | 3.929 ± 14.03 | (0.292) | 0.267 |
| **Lateral** | 4.545 ± 4.156 | (0.015) | 3.929 ± 3.496 | (0.005) | 0.767 |
| **Rotation** | | (1.000) | 2.143 ± 3.780 | (0.063) | 0.244 |
| **NRS** | 2.727 ± 1.849 | (0.003) | 1.857 ± 1.834 | (0.006) | 0.344 |
| **NDI** | 12.36 ± 10.89 | (0.008) | 3.950 ± 5.170 | (0.010) | 0.044 |