Treatment of Carpal Tunnel Syndrome By Injection With Corticosteroids.
Experience in Argentina

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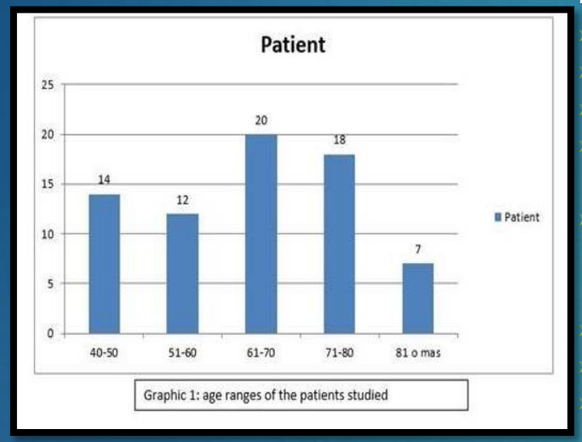
INTRODUCTION

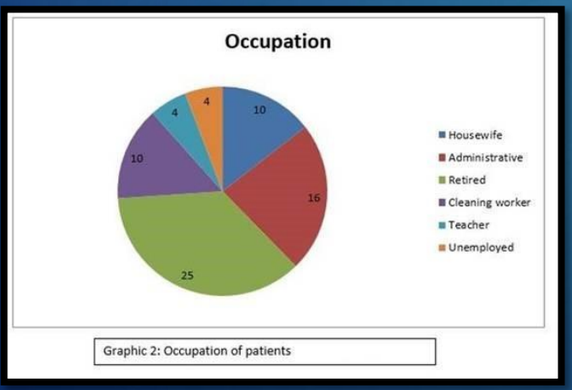
The carpal tunnel syndrome results from compression of the median nerve in the wrist, it can be caused by multiple factors[6]. Typical symptoms are pain (often by night), paresthesia, hypoesthesia, and numbness in the territory of the median nerve[4]. The prevalence of symptoms of neuropathy of the median nerve is 4.9% [1,3]

We prospectively studied patients clinically diagnosed with carpal tunnel syndrome and we treated them with corticosteroid injection.

This study aims to evaluate the efficacy of corticosteroid injection [5,7,8,9] at the carpal tunnel, such as treatment of mild and moderate cases [2] of carpal tunnel syndrome.



Graphic 1: age ranges of the patients studied



Graphic 2: Occupation of patients

METHODS

We enrolled patients who presented to our hospital from March 2013 through December 2014.

These patients were clinically diagnosed with carpal tunnel syndrome, but only those who had mild and moderate electromyogram results were accepted for this study.

Exclusion criteria were:

- previous treatment with surgical release or corticosteroid injection
- inflammatory disease or pathological etiology (such as rheumatoid arthritis)
- previous adverse reactions to corticosteroids or local anesthetics

RESULTS

- The procedure was performed on 71 hands: 45 women and 26 men.
- Ages were between 42-85 years (*Graphic 1*).
- The occupations were varied, dominated by retirees, 25 individuals (*Graphic 2*)
- Patients who were infiltrated were those with mild or moderate electromyogram result.
- Steroid solution was used (each vial contains: Betamethasone, dipropionate and 10 mg, and betamethasone as disodium phosphate, 4 mg; Excipients of 2 ml.), and 1 ml of 1% lidocaine (*Figure 1*).
- No immediate or mediate adverse effects were observed after injection.
- Follow-up was four dates at 15, 45, 90 and 180 days after injection.
- A number of 20 from 71 patients had a poor outcome (*Graphic 3*), recurrence or persistence of symptoms, this represents 28, 5% of the population studied (average age was 59,8 years; 80% were women).

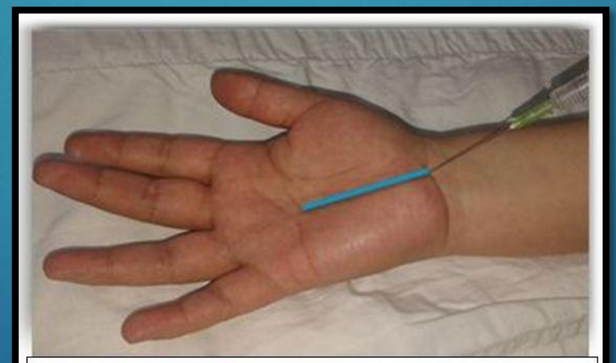
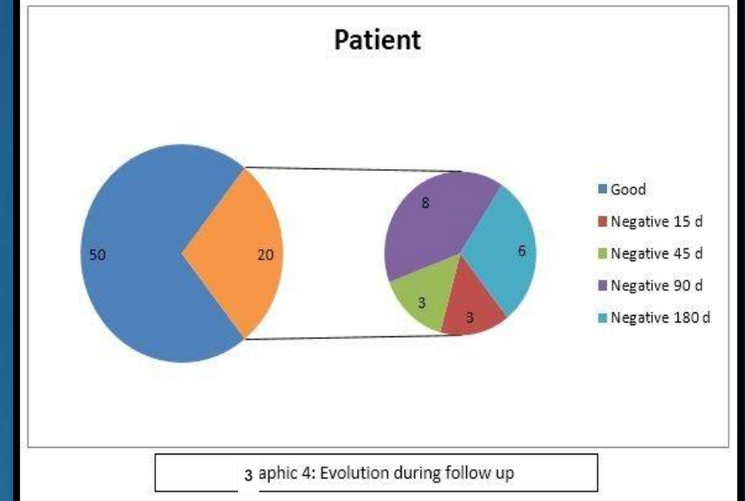


Figure 1: The patient's wrist is flexed against resistance and palmaris longus tendon is observed, the radial side is the best place to infiltrate. With the wrist in a straight position, the needle is inserted 2 cm at an angle of 90 °, ensuring that the solution is deposited in the carpal tunnel behind the flexor retinaculum.



3 aphic 4: Evolution during follow up

CONCLUSION

We agree with the published literature that injections of corticosteroids are more effective in the short-term treatment of carpal tunnel syndrome, as we have registered more patients with recurrences at 90 days.

Also, influence the success of this technique, the degree of compression using electromyogram and the patient's age at diagnosis.

We did not get significant differences in the ratio of time of diagnosis of the disease.

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