

# EFFECT OF INTRODUCING *CLOSTRIDIUM HYSTOLITICUM* COLLAGENASE FOR TREATING DUPUYTREN DISEASE IN A HOSPITAL

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*Dupuytren* disease leads to progressive fingers contractures, limiting hand function. Traditional treatment consists of open partial fasciectomy that implies hospitalization, anesthesia and physical therapy. Recent introduction of *Clostridium hystoliticum* collagenase in therapy has minimized the economic impact.

## PURPOSE

To evaluate effectiveness, safety and economic impact of collagenase versus fasciectomy after its introduction in the hospital.

## MATERIALS AND METHODS

- Retrospective observational study was performed in a university hospital of 400 beds. All patients treated with collagenase since May 2012, were enrolled in the study.
- Data were collected from medical histories to study efficacy and safety: sex, age, concomitant disease, pharmacotherapeutic history, previous surgeries and adverse events.
- We considered treatment was effective when residual contracture was  $<5^\circ$  after 4 weeks of collagenase injection.
- Costs of surgery and consultation were obtained from GECLIF (Financial Clinical Management) application. Cost of collagenase was calculated based on average price of its acquisition to pharmacy.
- Average cost of fasciectomy includes costs of surgery, hospital stay and associated consultations. Average cost of treatment with collagenase includes costs of drug and associated consultations.
- We compared average costs between the two treatments using T-Student-Fisher Test. Confidence intervals were calculated for a confidence level of 95% (CI95%) and p values  $\leq 0.05$  were considered statistically significant.

## RESULTS

### EPIDEMIOLOGY:

- 9 subjects (7 men and 2 women) with an average age of 68 years (range 62-76), diagnosed of *Dupuytren* with palpable cord.
- 55,6% had relapsed after previous surgery.
- Injectable collagenase was administrated in metacarpophalangeal joints (66,7%) or interphalangeal joints (33,3%).

### EFFICACY:

- Residual contracture  $< 5^\circ$  was achieved in 88,9% (n=8) of patients.
- None experienced relapse.
- One was recently treated, so we have no efficacy results.

### ADVERSE EVENTS:

- Mild to moderate adverse events were reported in 88,9% of patients that were resolved with appropriate treatment.
- Peripheral edema and hematoma (77,8%).
- Skin lacerations at injection site (44,4%)
- Paresthesia and pain (11,1%)
- Scab, erythema or pruritis (33,3%).
- No serious adverse events occur

### COSTS:

Average cost per patient for fasciectomy was 1.503,05€ and for treatment with collagenase was 922,78€. Collagenase treatment cost was an average of 580,28€ (509,51-651,06€, CI95%; p < 0,001) cheaper per patient than fasciectomy.

## CONCLUSIONS

Treatment for *Dupuytren* with collagenase is effective and well tolerated in most of patients. It represents a decrease of 38,6% in costs to hospital versus average cost of fasciectomy per patient.

## REFERENCES

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