



International Conference on Dupuytren Disease and Related Diseases 16 - 17 May, 2025, Brussels , Belgium

A Pilot Study of the Combined Use of Superficial X-ray Radiotherapy (SXRT) and Collagenase (Xiapex) for Treatment of Advanced Dupuytren's Disease

John Glees MD, FRCR, DMRT and Henry Weatherburn PhD
Cancer Centre London, 49 Parkside, London SW19 5NB

INTRODUCTION

To establish whether a combination of Superficial X-ray Radiotherapy (SXRT) & Collagenase (Xiapex) would be efficacious in the treatment of advanced DD (Tubiana Stage 1 or higher), a pilot study was undertaken from 2015 to 2019 at Cancer Centre London, UK. between 6 & 7 years after treatment) whether he is beginning to experience a recurrence of contracture.

MATERIALS & METHODS

The pilot study was planned to include a minimum of 10 patients who were to be treated by a combination SXRT (in two phases) and Xiapex. The three arms of the study were: (i) Xiapex treatment before the two phases of SXRT; (ii) Xiapex treatment after the two phases of SXRT; and (iii) a "sandwich" treatment with Xiapex treatment administered during the two month interval between the first and second phase of SXRT. Each phase of SXRT treatment comprised 5 x 3Gy with thermal imaging informing larger field sizes². An audit of patient outcome was to follow, with the aim of publishing the results as a case series, 10 years after the inception of the study.

RESULTS

Of the initial 10 patients, with the withdrawal of Xiapex from the UK market on 31st December 2019 (for commercial vs safety reasons), only 8 patients were treated as planned. Results are currently being collated on a case-by-case basis for publication. Patient treatment results showing finger straightening "before and after" the treatment regime is shown in the composite photo below:



The following photos show (in the LHS photo) another patient's hand pre-treatment, then (in the RHS photo) the same hand post-treatment, where it is completely flat. To date, of the 3 patients in the "sandwich" arm of the study, one is questioning (No concerns have been raised by the other patients. Skin dryness and erythema were not major issues with patients and no cancers were induced. Outcomes can be compared with the results of the CORDLESS (Collagenase treatment only) study which showed that, after 5 years, 47% of MCP joints and 66% of PIP joints experienced recurrence, a similar percentage to recurrence after surgery³.

DISCUSSION

The preliminary findings of the outcome of this pilot study of the treatment of advanced Dupuytren's disease by a combination of SXRT and Xiapex, including use of a "sandwich" protocol, show promise. The intention is to publish a more detailed case series of results when the 10 year audit is complete. These preliminary results indicate a lower recurrence rate than the 47% progression reported for a similar treatment series where radiotherapy treatment was started 2 to 4 weeks after the intervention⁴. Further studies of this treatment approach for advanced DD to inform the veracity of these preliminary results is desirable and may be practicable where Xiapex is currently available.

References

1. National Institute for Health and Care Excellence, Radiation therapy for early Dupuytren's disease. Interventional procedures guidance, Reference number:IPG573, Published: 21 December 2016
2. Glees, J and Weatherburn, H., A Comparative Longitudinal Observational Cohort Study of Fractionated Superficial Radiotherapy Treatment of Dupuytren's Disease. International Conference on Dupuytren Disease and Related Diseases 16 -17 May, 2025, Brussels , Belgium
3. Peimer, CA et al., Dupuytren Contracture Recurrence Following Treatment With Collagenase Clostridium Histolyticum (CORDLESS [Collagenase Option for Reduction of Dupuytren Long-Term Evaluation of Safety Study]): 5-Year Data. J Hand Surg Am., Vol. 40, August 2015, 1597-105
4. Shafer, R and Seegenschmeidt. H., Treatment of Dupuytren's Disease with Post-Interventional Radiotherapy, 2945, Volume 114 Number35, 2022, International Journal of Radiation Oncology Biology Physics