THE IMPORTANCE OF THE RIGHT ORTHOSIS CHOICE IN THE SWAN NECK TREATMENT
FOLLOWING CHRONIC MALLET FINGER: INNOVATIVE CASE REPORT

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Objective

The aim of this article is to highlight the importance of choosing the right orthosis for the swan neck deformity correction, following, mallet finger type lesion, with conservative treatment.

A literature review was performed, and an 8-bendage using KinesioTape was chosen, to combine the delicate balance of the extensor apparatus and the patient's functional needs.

Mini invasive solutions are necessary to increase patient compliance and acceptance, and to minimizing the risk of complications.

Methods

Literature includes Proximal Interphalangeal Joint (PIP) extension splinting and extension block for distal Interphalangeal Joint (DIP) (0°/+15°) using a dorsal or volar splint, to be replaced with a stack orthosis during the day, to prevent the PIP stiffness.

Alternatively it can be associated the use of an oval-8 and a stack splint.

In both cases, patients are forced to undergo complicated splint removal and applications that may result in a DIP flexion and compromise proper tendon healing.

To facilitate day-to-day management and reduce the risk of skin maceration, an 8-bendage Kinesio-Tape using 65% – 75% of tension on PIP has been used, together with DIP (about +10 / +15°) custom-made stack splint. This method is applicable to patients with a good compliance and that have been educated to change independently the bendage.

First Evaluation

Kinesio-Tape 8 bendage with hand made stack orthosis

The Kinesio-Tape prevents PIP iper extension allowing flexion, ensures better skin transpiration and reduces the risk of ulcers caused by prolonged use of the splint.

The protocol plans to wear, day and night, the DIP stack splint together with Kinesio-Tape 8-bendage for 4 weeks. Then for further 4 weeks the DIP stack only in the night hours.

Immediately the patient performance strengthening and stabilization exercises of intrinsic muscles of the hand.

The patient, worried that he could not manage the orthosis independently and not tolerating the other proposed solutions (dorsal-volar orthosis and oval-8), showed a remarkable appreciation for the treatment.

Results

At the end of the used rehabilitation protocol, the patient shows no more PIP swan neck deformity, passing from +15° to 0°, and from –25° to –5° on DIP.

Conclusions

The performed treatment is an alternative to models present in literature for resolving swan neck deformities caused by chronic fingered mallet.

Bibliography