including shoulder function by the Constant-Murley Score (CMS); Subjective pain by visual analogue scale (VAS score=[0–100] on a 100-millimeter line), and QOL by SF-12, were collected before the surgery (Baseline) and at follow-ups 1-3-and-6 months post-RCAS (F/U, FU-3M, FU-6M). The %patients achieving minimal clinical important difference (MCID) =15 and patient acceptable symptom state (PASS) = 17 was calculated. Groups were compared by superiority 2-sample t-test and chi-square. Results: Baseline scores were not significantly different between groups. As expected, post-RCAS, the CMS improved over time and was similar for both groups. However, compared to sham, PBM significantly accelerated the reduction in subjective pain at 3 and 6 months (Change over baseline in VAS score, mean±SD, PBM vs sham: FU3 32±33 vs 16±27, p=0.040; FU6 41±36 vs 23±26, p=0.038), with a significantly higher proportion of patients achieving MCID at 3 months (70%-vs-48%, p=0.027) and PASS at 6 months (48%-vs-23%, p=0.044). PBM also significantly improved the reported QOL at 6 months (physical component 6.8±3.1 vs 12.5±9.1 vs 2.2±1.2, p=0.032). Discussion: Self-applied photobiomodulation was found to significantly accelerate reduction in pain and improvement in quality of life following rotator cuff arthroscopic surgery. These findings may indicate the usefulness of photobiomodulation for rehabilitation in other orthopedic surgeries. Sponsored by Erica Carmel Ltd.

Category: Shoulder - Rotator Cuff

Short-term Outcomes of an “All-in-One” Interpositional Scaffold Anchor Implant for Rotator Cuff Tendon Repair: A Prospective Multicenter Study

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Summary:

The LTT showed significant improvement in active ROM and SSV and outperformed the LDT in these categories

Data:

Introduction: The aim of this study is the analysis of a cohort of patients who have been treated due to a non-reparable postero-superior rotator cuff (RC) tear with an arthroscopic assisted lower trapezius transfer (LTT). This cohort will be compared to a cohort of patients having been treated for the same pathology with Latissimus dorsi Transfer (LDT). Biomechanical studies have shown a better abdution and external rotation moment arm for the LTT in comparison to the LDT. Therefore, the hypothesis of this study was that the LTT would provide better functional results in comparison to the LDT.

Methods: Between 2013 and 2020 50 patients were treated with LDT and between 2018 and 2020 21 with LTT. For better comparability of the patient groups, a matched pairs analysis was carried out, in which 17 statistical pairs (34 patients: 30 males, 4 females; age (LDT): 55+6 years, age (alLTT): 55+7 years) could be included. Matching criteria were same sex, age +3 years, tear size according to Bateman +1, and retraction size according to Patte +1. The LDT was performed in a double incision technique and the LTT was performed arthroscopically assisted using an autologous semitendinosus interposition transplant. Clinical evaluation was included passive and active ROM and Constant-Score (CS), DASH, WORC, SSV, ADLEIR, OSS. Results: At final follow up of 43+18 months (LDT) vs 18+7 months (LTT) the CS improved in the LDT from 42 to 57 points (p<0.01) and in the LTT group from 48 to 63 points (p<0.01). Mean Flexion improved in the LDT group from 112° to 134° (n.s.) and abduction from 112° to 156° (p<0.001). Mean external rotation improved in the LDT group from 19° to 29° (n.s.) and to 44° for the LTT (p=0.05). Score results were: CS: 64 (LDT) vs 70 (LTT) (n.s.); DASH 19 (LDT) vs 12 (LTT) (n.s.); WORC 77 (LDT) vs 77 (LTT) (n.s.); SSV 75% (LDT) vs 77% (LTT) (n.s.); ADLEIR 33 (LDT) vs 33 (LTT) (n.s.), and OSS 23 (LDT) vs 19 (alLTT) (n.s.). Conclusion: Improved score results and functional improvement was seen in both groups. The LDT showed significant improvement in active ROM and SSV and outperformed the LDT in these categories.

Category: Shoulder - Rotator Cuff

Leukocyte-Poor Platelet Rich Plasma As An Adjuvant Of Arthroscopic Rotator Cuff Repairs Reduces Retears Rates But Does Not Improve Functional Outcomes A Double-Blind Randomized Controlled Trial