

Frozen shoulder – A prospective randomised clinical trial

Scientific research process

1. What did the study explore

There are many treatment options of frozen shoulder. The literature does not provide any guidelines to choose a treatment modality. Physicians, physiotherapists and orthopaedic surgeons who are not doing shoulder arthroscopy prefer the non-operative measures. Surgeons who are doing shoulder arthroscopy advocate the operative method. Injection of steroid in the shoulder joint is the commonest non-operative modality. In this study, we evaluated the functional outcomes of injection steroid and arthroscopic capsulotomy in the patients of frozen shoulder.

2. How did the authors perform all experiments?

The study was submitted to the ethics committee of our institute. The committee advised many changes to our proposal and we submitted a revised plan with the required changes. After we obtained the approval of ethic committee, we conducted this prospective randomised clinical trial. We were helped by the faculty in department of bio-statistics to determine the minimum number of patient to be included in this study, randomisation of the patients to the two study groups and later to analyse the data that was collected at the end of the study. In one group, the steroid injection was injected in the shoulder without any image guidance to replicate the actual clinical practice at most of the places. In the second group, arthroscopic capsulotomy was performed. In both the groups, the patients were given pain killers and physiotherapy to gain range of motion at the affected shoulder joint. We recored the VAS for pain, arc of motion and Constant score before the intervention and then at 4,8,12,16 and 20 weeks.

3. How did the authors process all experimental data?

The data was analysed in the department of bio-statistics of our institute. The details of the statistical methods are mentioned in the manuscript and the answers to the reviewers' comments.

4. How did the authors deal with the pre-study hypothesis?

We hypothesized that the two modalities of treatment would give similar clinical outcomes.

5. What are the novel findings of this study?

We concluded that both the modalities provide significant improvement to the patients. However the improvement in surgery group preceded those in injection group by 4 to 8 weeks. This fact can help in the guiding the care provider to chose the modality of treatment according to the profile of the patient.