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Original Article

Management of Idiopathic frozen shoulder.

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Abstract:

Introduction: Frozen shoulder is a common condition which is characterized by progressive pain &stiffness of shoulder can last up to 2-3 years. It is challenging condition because the effectiveness of treatment is limited. It can cause difficulties with activities of daily living like washing, cleaning, wearing and combing.
Objective: Treatment of idiopathic frozen shoulder with intraarticular corticosteroid injection and exercise.
Methodology: Sixty patients with frozen shoulder were treated in outpatient department of orthopedic surgery in Muhammad Medical College Mirpurkhas from Jan 2014 to Dec 2016. All the patients were given intra articular methylprednisolone mixed with 2% xylocaine. Three injections were given at monthly interval followed by exercise. Follow up was done up to Six months.
Results: 60 patients were treated with three intra articular injections of corticosteroids at monthly interval followed by exercise. 80% have excellent results i.e. relief from pain and achieved full range of motion.10%have mild pain and 10% have restricted internal rotation of shoulder.
Conclusion: Patients with frozen shoulder have excellent results when treated with intra articular corticosteroid injection followed by exercise.

Key words: Frozen shoulder, Adhesive capsulate, intra articular corticosteroid.

Introduction:

Frozen shoulder is a condition characterized by progressive pain & restricted movement of shoulder. It is also known as adhesive capsulitis. Cause is unknown however it may be associated with diabetes mellitus, Dupuytren's contracture, hyperlipidemia, hyperthyroidism, cardiac disease & hemophilia. The patient is usually between the age of 40-60. It has three phases

- Stage of pain
- Stage of stiffness
- Stage of Thawing

It can cause difficulties with activities of daily living like washing, cleaning, combing and wearing. It also causes difficulty in sleeping on affected side. Although there is pain and restriction of movement, but radiological appearance of shoulder is usually normal. It is a challenging condition because efficiency of treatment is limited.

Methodology:

This prospective Study was performed in outpatient department of Orthopedic surgery at Muhammad Medical College Hospital, Mirpurkhas from Jan 2014 to Dec. During period of the study, 60 patients with frozen shoulder were treated with intra articular injection of corticosteroid (Methylprednisolon+2%xylocaine injection). Three shots were given at monthly interval followed by exercise program. After all aseptic measures we use anterior approach for intra articular injections. The Visual Analogue Scale (VAS) used to measure pain, where 0 means no pain and 10 means severe pain. The mean VAS categorized into 3, as mild

pain (up to 4), moderate (up to 6) and severe (7 or above). Movement was assessed with goniometer. The movement and range of movement was assessed after every injection i.e. at every month and after 3rd injection. The results obtained were recorded into a Performa and analyzed.

Inclusion criteria.

Patients with frozen shoulder.
Patients with aged 40 or above.
No history of previous trauma.
Patients with normal x-ray of shoulder.

Exclusion criteria:

Patients with fractures.
Patients with previous history of trauma
Shoulder stiffness due to other causes.

Results:

Among the 60 patients treated with intra articular injection of corticosteroid and exercise, 24 patients (40%) were male and 36 (60%) were female. All patients were right hand dominant, however 36 (60%) patients were having frozen shoulder on right shoulder while 24 (40%) presented with involvement of left side. Most common systemic disease reported by the patients was diabetes (n=50, 83.34%). Hyperlipidemia was reported by 6 patients and 4 patients were having cardiac problem. Follow up was done for six months.80% patient had excellent results i.e. relief of pain & achieve full range of motion.10% Patients had mild pain& 10% had restricted internal rotation.

Table No 1: Age distribution.

Age in Years	No of patients	%
40-50	20	33.33
50-60	40	66.66

Table No 2: Gender distribution

Gender	No of patients	%
Male	24	40%
Female	36	60%

Table No 3: Side Distribution

Side	No of patients	%
Right	36	60%
Left	24	40%

Discussion:

Frozen shoulder is a common condition characterized by progressive pain & stiffness of shoulder that last up to 2-3 years. Cause is not known but may be associated with Diabetes mellitus, hyperlipidemia, Dupuytren's contracture, Hemophilia and cardiac disease. It is a challenging condition because effectiveness of treatment is limited. There are so many treatments for frozen shoulder that includes NSAID, physiotherapy, Manipulation Under Anesthesia (MUA), distension of shoulder by normal saline, oral corticosteroid& intra articular corticosteroid injection. Different treatment options have been tried by researchers and reported variable results. None of these regimens is satisfactory and free of complications; for example, MUA carries the risk of fractures, use of oral steroids is associated with systemic complications of steroid, distension of shoulder by normal saline may aggravate the existing pain. For this study purpose We treated all the 60 patients with intra articular injection of corticosteroid (Methylprednisolon+2%xylocaine). We used three (3) injections, each with an interval of one month. We have achieved excellent results with intra articular injection in 80% patients (VAS= mild). In10% of the patients' pain reduced in severity (VAS=moderate) while 10% of the patients did not find any relief at all (VAS=severe), however this pain was now associated only with internal rotation of the shoulder joint.

Conclusion:

Our study concludes that intra articular corticosteroid injection followed by exercise offer better prospective for the management of idiopathic frozen shoulder.

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