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FUNCTIONAL OUTCOME OF PERIARTHRITIS SHOULDER TREATED BY HYDRODISTENTION AND MANIPULATION UNDER REGIONAL ANAESTHESIA

Orthopaedics

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ABSTRACT

Aim: To study the functional outcome of periarthritis shoulder treated by hydrodistention and manipulation under regional anesthesia. **Materials And Methods:** In this prospective study we enrolled 50 patients who are diagnosed to have periarthritis shoulder satisfying the inclusion criteria. After prior informed consent, a preprocedural anaesthetic evaluation was done. Under Regional anaesthesia, hydrodistention was done with 0.9% normal saline followed by manipulation. Approximately, 40-60ml of normal saline given till a resistance felt. Codman's manipulation was done, which includes three consecutive 90° rotations called elevation, swing, and descending movements. Post-procedure the patients were taught active assisted ROM exercises. Patients were followed up at the end of 1st, 6th and 12th week and evaluated based on Constant shoulder score. **Results:** Females are more commonly associated with periarthritis shoulder. Periarthritis shoulder commonly associated with diabetes mellites. The constant shoulder score increased in all intervals from 1, 6, 12 weeks followup and was statistically significant (p value < 0.001). Out of 50 patients 35 had excellent, 10 had good and 3 fair and 1 had poor outcome. 90 % of the patients had good results with a satisfactory functional outcome. **Conclusion:** In our study the technique of hydrodistention and manipulation under regional anesthesia and supplemented by physiotherapy is suggested to provide good functional outcome and is an excellent treatment modality for managing frozen shoulder.

KEYWORDS

Periarthritis, Constant shoulder score, Codman's manipulation, Diabetes mellitus, Hydrodistension

INTRODUCTION

Periarthritis shoulder has been encountered among adults of all age groups, but is far more common during 4th and 6th decade of life.[1]

In general population the incidence of frozen shoulder is 2-5%, whereas among diabetics it is 10-20%. Further among diabetics, insulin dependent diabetics have a high incidence of frozen shoulder. [2]

This condition is also more common in people with sedentary occupations, in females and non dominant arm is more commonly involved. [3]

METHODOLOGY

In this prospective study we enrolled 50 patients who are diagnosed to have periarthritis shoulder satisfying the inclusion criteria. After prior informed consent, a preprocedural anaesthetic evaluation was done. Under Regional anaesthesia, hydrodistention was done with 0.9% normal saline followed by manipulation. Approximately, 40-60ml of normal saline given till a resistance felt. Codman's manipulation was done, which includes three consecutive 90° rotations called elevation, swing, and descending movements. Post-procedure the patients were taught active assisted ROM exercises. Patients were followed up at the end of 1st, 6th and 12th week and evaluated based on Constant shoulder score.

RESULTS

In our study the age group ranged from 30-60 years with an average of 49 years. The maximum numbers of patients were Female (66%). In our study, most of the patients had No associated systemic illness (50%). 48% of patients had Diabetes and 2% of patients had Hypothyroidism. Out of 50 patients 35 had excellent, 10 had good and 3 fair and 1 had poor outcome. 90 % of the patients had good results with a satisfactory functional outcome.

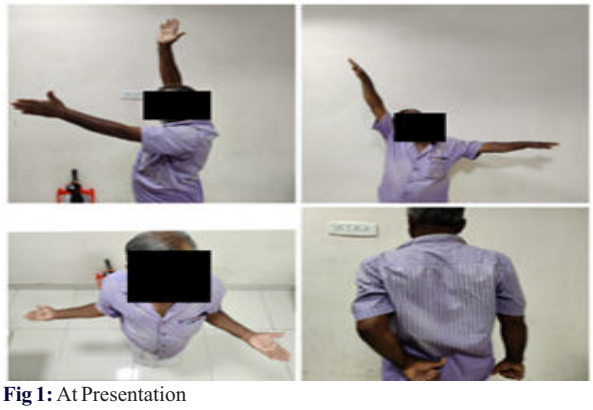

Fig 1: At Presentation

Table 1: Final Outcome At 12 Weeks

RESULTS	NO OF CASES	PERCENTAGE
EXCELLENT	35	70%
GOOD	10	20%
FAIR	3	6%
POOR	2	4%
TOTAL	50	100%

Fig 2: At 12 Weeks Followup

DISCUSSION

AGE:

The mean age of the patient in the present study was 49 years with a range of 30-60 years. Krishna subramanyam et al [4] reported mean age to 45.86 years.

SEX DISTRIBUTION:

Out of 50 patients 33 were female and 17 were male. In a similar study done by Krishna subramanyam et al [4] 30 were female and 20 were male.

ASSOCIATED SYSTEMIC ILLNESS:

In our study 48% of patients were associated with Type 2 diabetes mellitus and 2% with hypothyroidism. Krishna subramanyam et al [4] reported that 28% of patients were associated with type-2 diabetes mellitus.

CONSTANT SHOULDER SCORE:

In a similar study done by Krishna subramanyam et al [4] 86% had good outcome and 14% had fair outcome.

Gavant et al [5] reported 87.50% good outcome. Jacob's et al [6] reported 82% good outcome.

Rajendranath et al [7] reported 81% good outcome.

COMPLICATIONS

No complications were encountered in our study

LIMITATIONS

- Smaller sample size
- Need long term followup

CONCLUSION

In our study the technique of hydrodistention and manipulation under regional anesthesia and supplemented by physiotherapy is suggested to provide good functional outcome and is a excellent modality in managing frozen shoulder.

CONFLICT OF INTEREST

None

REFERENCES

1) Anton HA. Frozen shoulder. *Can FAM Phys* 1993;39:1773–7.
2) Lundberg B. The frozen shoulder. *Acta Orthop Scand* 1969;119(Suppl):5–59
3) Reeves B. The natural history of the frozen shoulder syndrome. *Scand J Rheumatol* 1975; 4: 193–196.
4) Subramanyam K, Sahini SC, Kumar S, Ampajwalam PR. Functional outcome assessment of frozen shoulder treated by distension hydrodilatation and viscosupplementation: A prospective study. *Int J Orthop Rheumatol* 2019;5(2):35-41.
5) Gavant ML, Rizk TE, Gold RE, Flick PA. Distension arthrography in the treatment of adhesive capsulitis of the shoulder. *J Vasc Interv Radiol* 1994;5:305–8.
6) Jacobs LGH, Barton MAJ, Wallace WA, Ferrousis J, Bunn NA, Bossingham DH. Intra-articular distension and steroids in the management of capsulitis of the shoulder. *BMJ* 1991;302:1498-501.
7) Rajendranath sinha, Priyes Patel, Nicky rose: Analysis of hydrodilatation as part of a combined service for stiff shoulder. SAGE journals 2017;9(3):169-77.