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Original Research Article

Comparative evaluation of methods in conservative treatment of periarthritis shoulder

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Abstract: Periarthritis shoulder (Frozen shoulder) is a painful, often prolonged condition, usually seen in middle aged person in fourth and fifth decades of life that requires careful clinical diagnosis and management. Patients usually recover, but they may never regain their full range of movement. Males are affected 163 times as commonly as female. Persons who are involved in sedentary work are more prone to develop problem of periarthritis shoulder. This study aim to evaluate the methods of conservative treatment in periarthritis shoulder. A total 75 Patients were considered. Among total sixteen patients under analgesics showed moderate (25%), poor (75%) and good (0%) response to treatment. 11.11% on treatment with hydrocortisone plus showed good response, while 22.22% showed moderate and 66.67% showed a poor response. Intra-articular hydrocortisone along with physiotherapy and analgesics can be claimed as the best line of treatment as it is safe, more effective with relatively non or every rare complication.
Keywords: Periarthritis shoulder, Analgesics, Physiotherapy, Hydrocortisone

INTRODUCTION

The outstanding feature of modern man has been the versatile mobility and functions of his evolved hand and its work in close cooperation with the elbow and the shoulder [1-3]. Periarthritis shoulder is a clinical syndrome that is more or less constant. It is well recognised by pain in the shoulder region with or without radiation down the arm in a patient of 50-60 years with gradual limitations of movements and occasionally super added with weakness of the arm and commonly associated anxiety or depression [4]. The movements are limited in all directions from the position in which the limb is rested mostly in abduction and external rotation [5].

The effective therapeutic methods to periarthritis shoulder are still remains elusive. The treatment rendered should be such that it makes the mobility of shoulder joint without pain and increase in the range of movement [6-8]. The present study aimed to study the clinical behaviour and evaluation of various methods in conservative treatment of periarthritis shoulder.

MATERIALS AND METHODS:

The present study was conducted in Department of Orthopaedics, MNR Medical College& Hospital, and Sangareddy during April 2014 to September 2016. A total 100 Periarthritis shoulder patients from outpatient department were considered.

Inclusion criteria:

Clinically diagnosed patients of periarthritis or frozen shoulder, complaints of pain in the shoulder and loss of movements at shoulder partially and completely were included.

Exclusion criteria:

Cases associated with multiple arthritis, doubtful of tuberculosis and periarthritis of shoulder following definite dislocation, fractures about the shoulder were excluded.

Neurological examinations were conducted to the hand and fingers by comparison of both sides. Postero anterior radiograph of the chest was taken in required cases to rules out any lung pathology. Total fifty patients were divided in to 4 groups and evaluation of different therapies was done only on clinical assessment

of the cases. Different methods of treatment used such as analgesics, Physiotherapy plus analgesics, intraarticular hydrocortisone injections with physiotherapy& analgesics and analgesics with intraarticular hydrocortisone injection.

All the group of patients were called for the assessment of results done on the 1st day, 1st week, 2nd week, 6th week, 12th week and progress watched for subjective and objective pain relief and performance of shoulder movements.

RESULTS

Among 75 patients, majority belongs to 41-50 years i.e. 23 (48%) patients. Out of 75 patients males were 46 (61.3%) and female were 29 (38.6%). 68% patients were having right side shoulder involvement and 32% having left side. Bilateral involvement was not encountered. The insidious onset of symptoms was about four times more common than the acute onset.

Out of 75 patients 13 of the patients had mild pain and it caused little inconvenience to the patient in their work. In 41 of patients had moderate severity of pain. The remaining 21 patients had severe pain that they completely avoided using affected arm and most of them placed for immediately relief. Irrespective of the severity of the pain, in majority of the patients pain was present both as rest and on motion.

Table 1: Showing History of trauma

History	No. of cases	Percentage
Direct trauma	6	8.0
Indirect trauma	5	6.6
No trauma	64	85.3
Total	**75**	**100.0**

Table 2: Radiation of pain extension

Site of radiation of pain	No .of cases	Percentage
Up to arm	21	28.0
Up to fore arm and fingers	7	9.3
Localised only to shoulder	47	62.6
Total	**75**	**100**

Table 3: Showing periarthritis patents with associated diseases

Disease	No of cases	Percentage (%)
Diabetes	11	14.8
Coronary disease	4	5.5
Pulmonary tuberculosis	2	2.6
Leprosy	2	2.6
Cervical spondylosis	5	6.6
Total	**24**	**32.0**

Table 4: Analgesics with physiotherapy

Duration (weeks)	Total cases	Good		Moderate		Poor	
		Number	%	Number	%	Number	%
0-2	27	-	-	12	33.32	12	66.66
2-4		-	-	3	16.66	15	83.33
4-8		-	-	6	16.66	15	83.33
8-12		2	5.55	14	38.86	11	61.11
12-16		4	11.11	9	50.00	7	38.88

Table 5: Analgesics with physiotherapy and intraarticular hydrocortisone

Duration (weeks)	Total cases	Good		Moderate		Poor	
		Number	%	Number	%	Number	%
0-2	23	-	-	8	53.33	7	46.66
2-4		-	-	6	40.00	9	60.00
4-8		1	66.66	5	33.33	9	60.00
8-12		2	13.33	7	46.66	6	40.00
12-16		3	20.00	8	53.33	4	26.66

Table 6: Analgesics with intraarticular hydrocortisone

Duration (weeks)	Total cases	Good		Moderate		Poor	
		Number	%	Number	%	Number	%
0-2	14	-	-	6	66.66	3	33.33
2-4		-	-	6	66.66	3	33.33
4-8		1	11.11	2	22.22	6	66.66
8-12		1	11.11	3	33.33	5	55.55
12-16		1	11.11	2	22.22	6	66.66

DISCUSSION

The role of analgesics in early cases of periarthritis has been stressed by many authors. The relief of pain by analgesics is said to diminish the muscle spasm and give dramatic relief. But there was equally quick recurrence of symptoms, because as the action of analgesic waned off, pain reappeared and vicious cycle commenced again [9, 10].

Physiotherapy plays an important role to break vicious cycle of periarthritis where diffuse factor has been given the major role. Neviaser in 1962 stated that exercise form the fundamental basis of treatment of periarthritis shoulder, because they help to mobilize the shoulder joint and to maintain the increasing range of motion gained by them, to restore muscle power and coordination of movement [11].

In this study 73.33% patients showed improvement (20% good & 53.33% Moderate response). This is in accordance with the results of De Palma (80%), Singh *et al.;* (1962) and Girgla and Grewal (100%) [12-14]. The action of hydrocortisone is said to be anti-inflammatory and in a reparative phase, it prevents the formation of fibrin and in growth of fibroblasts.

In the present series, it was found that during early period of treatment, there was little difference of alleviation of symptoms between this group of patients and those who got physiotherapy apart from above modes. But later the symptoms reappeared and may be because of absence of physiotherapy.

CONCLUSION:

The insidious onset of symptoms is found five times more common than sudden onset. Pain in the shoulder region extending up to arm and forearm In 1/3rd cases is the first presenting symptoms in majority of cases. These cases without history of trauma are six times more common. The cases in which history of trauma was elicited, presented as of minor type. Tenderness is present in all cases but along the biceps tendon it is three times more common. Intra-articular hydrocortisone along with physiotherapy and analgesics can be claimed as the best line of treatment as it is safe, more effective with relatively non or every rare complication. More ever no hospitalization is require for the treatment physiotherapy, too forms the integral part of treatment.

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