ROLE OF EPIDURAL MEDICATION IN LUMBOSCIATIC SYNDROME

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ABSTRACT

Role of epidural medication through caudal route was studied in 109 patients having lumbago with or without sciatica to highlight the value of this mode of treatment which relieved symptoms in more than 70% of cases without hospitalisation and without being off work for long periods as in usual methods of conservative treatment.

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KEY WORDS : Epidural medication; Backache; Lumbago; Sciatica

Introduction

The prevalence of backache with or without sciatica is quite high in general population and none the less among Armed Forces personnel resulting into considerable loss of efficiency and working hours. The condition is often difficult to treat satisfactorily because its cause may remain obscure to treat after careful clinicoradiological examination.

The various types of conservative treatments viz., physical therapy and bed rest with traction throw a considerable burden on hospital out-patient and in-patient department. Out-patient ambulatory treatment of low backache and sciatica is more convincing. Countless days of disability and unnecessary use of hospital beds could be saved by keeping the patients ambulant during the treatment.

The purpose of this study is to draw the attention of all physicians and surgeons to the value of epidural medication in treating this common and incapacitating condition since the method permits the sufferer to remain ambulant throughout. It is not a new technique but deserves wider use and attention.

Material and Methods

109 cases suffering from backache with or

without sciatic radiation attending the out-patient department of Orthopaedics were included in the study. They were thoroughly investigated and patients with neurological, infective or malignant diseases were excluded.

The remaining patients were grouped and administered randomly, either of the two types of treatment. (i) Group 'A' - 20 ml of 0.25% bupivacaine followed by 40 ml of isotonic saline (type 'A' medication). (ii) Group 'B' - Medication type 'A' followed by injection hydrocortisone acetate 5 ml (25 mg/ml) (type 'B' medication). The epidural injection was given through caudal route under strict aseptic condition and in operation theatre. Patients were observed for 4-6 hours in the recovery room. They were made to lie on the affected side in a case of sciatica or flat in a case of backache for initial one hour. They were not allowed to sit up or stand. They were permitted to stand and walk unsupported after 4-6 hours and allowed to go home with advice not to lift weight or bend forward. Few patients, who felt a little uneasy were admitted to the hospital for a day or two. All were advised spinal extension and abdominal exercises. They were permitted to do light duties. Majority of patients required only one injection. However, in 32 patients (29.9%) it was repeated second time.

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Results

109 patients who were followed up to 24 weeks have been included in this study. Majority of patients belong to 20-40 years age group with preponderance of males (Table 1).

28 patients had acute onset and had been having complaints for less than 6 months while 52 patients had chronic symptoms for over 6 months. There were 29 patients who had recurrent attacks with symptom free intervals of varying periods. They were randomly selected and administered either type 'A' or type 'B' medication (Table 2).

Both medication showed good results in acute cases. However, individuals receiving type 'B' medication (steroid containing) showed overall better response as compared to type 'A' medication (Tables 3 & 4) for chronic and recurrent cases. Beneficial effects of injection declined at 24 weeks follow up in both groups yet it continued to benefit majority of cases (Table 4). Complications were few and insignificant and did not require any special treatment (Table 5).

Discussion

Patients suffering from backache and sciatica

show varying results with various modes of conservative treatment. Usual conservative treatment is cumbersome and expensive as patient is confined to bed and cannot attend to his job. Hence there is a need for a type of treatment which can effectively relieve the

TABLE 1
Age and sex distribution

Age groups (yrs)	Male	Female	Total
20-30	30	1	31
31 - 40	47	2	49
Above 40	25	4	29
Total	102	7	109

TABLE 2
Type of medication

Group	No of Patients	Type 'A'	Type 'B'
Acute	28	12	16
Chronic	52	22	30
Recurrent	29	12	17
Total	109	46	63

TABLE 3
Early results (at 4 weeks)

Group	With type 'A' treatment				With type 'B' treatment			
	Good	Fair	Poor	Total	Good	Fair	Poor	Total
Acute	8 (66.6%)	3 (25%)	1 (8.3%)	12	10 (62.5%)	6 (37.5%)	0	16
Chronic	10 (45.4%)	8 (36.3%)	4 (18.1%)	22	22 (73.3%)	6 (6.6%)	2 (6.6%)	30
Recurrent	4 (33.3%)	5 (41.6%)	3 (25%)	12	7 (41.1%)	6 (23.5%)	4 (23.5%)	17
Total	22	16	8	46	39	18	6	63

TABLE 4
Late results (at 4 weeks)

Group	With type 'A' treatment				With type 'B' Treatment			
	Good	Fair	Poor	Total	Good	Fair	Poor	Total
Acute	7 (58.3%)	4 (33.3%)	1 (8.3%)	12	9 (56.2%)	6 (37.5%)	1 (6.2%)	16
Chronic	5 (22.7%)	8 (36.3%)	9 (40.9%)	22	18 (60%)	7 (23.3%)	5 (16.6%)	30
Recurrent	2 (16.6%)	6 (50%)	4 (33.3%)	12	4 (23.5%)	6 (35.2%)	7 (41.1%)	17
Total	14	18	14	46	31	19	13	63

TABLE 5
Complications

Complications	No of cases		Total	Percent
	Type A	Type B		
Fall in BP (more than 10 mm of Hg)	4	2	6	5.5
Increase in pain during medication	6	8	14	12.8
Nausea/vomiting	1	2	3	2.7
Haemorrhagic puncture	2	0	2	1.8

symptoms without hospitalisation or confinement of patient to bed. Epidural medication keeps an individual ambulant.

Local anaesthetic used in medication relieves pain and breaks the pain muscle spasm ischaemia pain cycle [1]. Injected saline stretches the nerve roots and probably displaces the nerve roots away from the site of compression. Corticosteroids accelerate healing of the irritative/inflammatory state of affected nerve roots by reducing oedema [2-4].

Acute low backache cases showed prompt gratifying results in 27 out of 28 cases which showed some recurrence at 24 weeks (Table 4). Chronic and recurrent types of low backache benefitted more than with type 'B' medication, however, there was marginal increase in failure of treatment at 24 weeks follow up. Rate of complication was low and type of complication insignificant. It is therefore tempting to recommend that caudal epidural injection of local anaesthetic, saline and hydrocortisone acetate is simple, safe procedure which gives excellent relief in acute low backache cases.

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