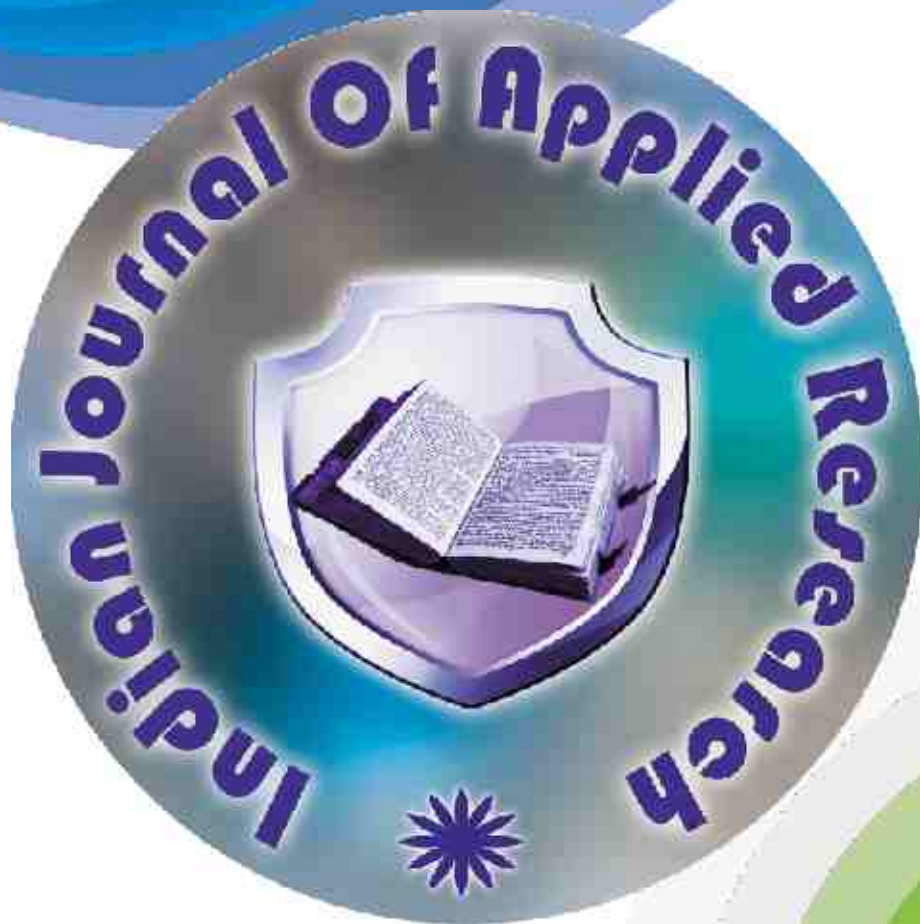


₹ 200

ISSN - 2249-555X

**Volume : 1    Issue : 5    February 2012**



**Journal for All Subjects**

[www.ijar.in](http://www.ijar.in)

Listed in International ISSN Directory, Paris.



ISSN - 2249-555X

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# Index

Sr. No	Title	Author	Subject	Page. No.
1.	Assay Of Triphenylmethane Reductase Enzyme And PCR-Based Identification Of TMR Gene In Enterobacter Asbriae Strain XJUH-4TM	Tina Mukherjee, Moumita Bhandari, Manas Das	Biotechnology	1-2
2.	An Analysis Of Growth Of Credit Card Industry	Dr. A. Vinayagamoorthy, K. Senthikumar	Commerce	3-5
3.	Impact Of Pre-Merger And Post Merger On Financial Performance (With Reference To Private Sector Banks)	Dr. Shital Vekariya	Commerce	6-8
4.	Relativity On Climate And Competencies In Human Resource Development With Reference To Neyveli Lignite Corporation Ltd,	S. Jayakumar. Dr. R. Ramachandran	Commerce	9-11
5.	Human Resource Outsourcing: A Strategy For Gaining Competitive Advantage	Dr. Santosh M. Singh	Commerce	12-13
6.	Relationship Between EVA And ROI And MVA (A Case Study Of Ten Manufacturing Industries In India)	Dr. Shivani Gupta	Commerce	14-15
7.	Modeling The Traits Of An Effective Teacher At Higher Education	Dr. Haridayal Sharma	Commerce	16-17
8.	Mahatma Gandhi National Rural Employment Guarantee Act (Mgnrega): Issues And Challenges	Dr. Mohd. Ashraf Ali, Mushtaq Ahmad	Commerce	18-20
9.	Standardisation And Grading	Viram. J. Vala, Dr. Vijay Kumar Soni	Commerce	21-22
10.	Profitability Of Selected Information Technology Companies In India	Dr. M. Jegadeeshwaran, C. Udaya	Commerce	23-25
11.	Emerging Trends In The Indian Media And Entertainment Industry	Dr Mahalaxmi Krishnan	Commerce	26-27
12.	Inventory Management Strategies And Control Techniques: An Empirical Investigation Of Small Scale Industries	Vipul Chalotra, Neetu Andotra	Commerce	28-30
13.	A Study On Performance Indicators Of Commercial Banks	Dr. G. Ganesan, P. Parthasarathy	Commerce	31-33
14.	Improved Approaches To Coreference Resolution In Machine Learning	Kuldeep Singh Raghuvanshi, Ashwini Kumar Verma	Computer Science	34-37
15.	Security Issues & Controls In Cloud Computing	V. Naga Lakshmi	Computer Science	38-40
16.	Human Development Index Of De-Notified Nomadic Castes In Maharashtra Division: A Study Of Jalna And Aurangabad Districts	Dr. Ashok Pawar	Economics	41-43
17.	Public Private Partnership In Rural & Urban Projects In India	Dr. Ashok S. Pawar, Dr. Shankar B. Ambhore	Economics	44-45
18.	Populace Insight On Development In Public Health Sector Of India Subsequent To Functioning Of National Rural Health Mission	Krishnakant Sharma	Economics	46-49
19.	Problems Of Rural Women Entrepreneurs In India: A Conceptual Overview	C. Jeyasri Usha N Devi, Dr. A. Sankaran	Economics	50-52
20.	Poverty Of Banjara And Vanjari Communities In India	Tidke Atish S., Dr. Pawar Ashok S.	Economics	53-54
21.	India And China: Economic Reforms And WTO	Dr. Surinder Kumar Singla, Dr. Kulwinder Singh	Economics	55- 56
22.	Implementing Life Skill Education Strategies In Teaching – Learning Process	R. Kalaiselvi, Dr. A. Palanisamy, Dr. A R. Saravanakumar	Education	57-59

23.	Utilisation Of Modern Technology By The Teachers In Pupil Processing Organisation	Dr. P.Paul Devanesan, Dr A. Selvan	Education	60-61
24.	Impact Of Vocational Training On Students	K.Sudha Rani, G.Umapathi, Dr. T. Ananda,	Education	62-63
25.	A Study On Emotional Intelligence Of Secondary School Teachers	Dr. Umme Kulsum, Prathima H.P.	Education	64-66
26.	The Efficiency Of Feedback Strategy Of Homework On The Development Of 10th Grade EFL Writing Skill In Al-Karak Educational Directorate	Majid Al- Khataybeh, Areej Al-Shourafa`	noitacudE	67-74
27.	Perspectives Of Stress Management In Education System	M. Meenakshisundaram, G. P. Raja, Dr. A R. Saravanakumar	Education	75-76
28.	Attention Regulation Of Meditators And Non-Meditators Of Class IX	G. Madhavi Kanakadurga, Dr. D. Vasanta Kumari,	Education	77-78
29.	Role Of Psychoeducation In Teaching – Learning Process	Dr. A R. Saravanakumar, Dr. A. Balu, Dr. S. Subbiah	Education	79-80
30.	Microcontroller Driven RGB Led System For Tristimulus Surface Colorimetry	T. N. Ghorude, A. D. Shaligram	Electronics	81-83
31.	Pmgsy And Rural Roads Development In India: Economic, Financial And Maintenance Issues	K.C. Manjunath	Engineering	84-86
32.	Routing Packets On A Chip.	Naren V Tikare	Engineering	87-89
33.	Finding The Nearest Neighbors In Biological Databases	Er. Pankaj Bhambri, Dr. O.P. Gupta, Er. Franky Goyal	Engineering	90-92
34.	Factors Affecting The Sustainability Of The Asphalt Roads: A Case Study Of Irbid Inner Ring Road, Jordan	Eng. Nasr Ahmad Dr. Mihai Iliescu	Engineering	93-94
35.	Physical And Chemical Testing Of Compounded PVC	Sapna Dabade, Dr. Dheeraj Mandloi, Deepak Khare	Engineering	95-96
36.	Impact Of Organic Farming On Yield Of Some Common Crops- A Case Study.	Namrata D. Awandekar	Environmental Science	97
37.	Hydrogeologic Settings Of The North And South Brahmaputra Plains In Upper Assam: A Comparative Study	Dr. Uttam Goswami	Geology	98-100
38.	To Study Staffing Pattern In Rajasthan Public Healthcare Delivery System.	Dr. Ashwin G. Modi, Sushman Sharma	Healthcare	101-105
39.	Work And Health: A Situational Analysis Of Factory Workers	Dr. S. S. Vijayanchali, Dr. E. Arumuga Gandhi	Home Science	106-108
40.	Performance Of Camel Kid Hair: Acrylic Blended Yarn And Knitted Fabric	Suman Pant, Anjali Sharma	Home Science	109-110
41.	Impact Of Holistic Nutrition Education Package On Diabetes Mellitus Control In Middle Aged Women	Dr. Anjali Rajwade	Home Science	111-112
42.	Assessment Of Relationship Between Ida And Personal Hygiene, Nutritional Knowledge And Dietary Practices In Adolescent Girls	Dr. Anjali Rajwade	Home Science	113-114
43.	Employee Attrition And Retention In Private Insurance Sector– A HRM Challenge	Dr. J. Senthil Vel Murugan, S.Bala Murugan	Human Resource Management	115-117
44.	A Study On Impact Of Unionism On Industrial Relations In Manufacturing Sector	Jaya Ahuja	Industrial Relations	118-120

45.	Augmentation Of India's Foreign Exchange Reserve: An Analysis	Dr.S P.Mathiraj, Ar.Annadurai	International Business	121-123
46.	Films – A Techno Literary Art Form	Dr. Dipti Mehta	Literature	124-125
47.	Indirect Models Of Reading To Develop Descriptive Writing	Dr. K. Madhavi	Literature	126-128
48.	Ramkrishna Mishra Ke Upanaso Me Rajnetaik Chetavni	Dr. Sanjay Rathod, Dilip Jhadav	Literature	129
49.	Hindi Kavita Me Nari Jivan Ka Badla Swarup	Dr. Sanjay Rathod	Literature	130
50.	Impact Of IPL Sponsorship On Consumer Buying Behavior With Reference To Nagpur City	Chandrima Das	Management	131-135
51.	Crowd Sourcing –A New Management Mantra	Devi Premnath, Dr. C. Nateson	Management	136-137
52.	Small Scale Industries In India: An Evaluation Of Productivity In The Post-Liberalized Scenario	Dr. Gaurav Lodha,	Management	138-139
53.	Comparative Analysis Of Milk Products With Respect To Its Competitors With Special Reference To Karnataka Milk Federation (KMF) – At Dharwada City, Karnataka, India	Dr. N. Ramanjaneyalu	Management	140-143
54.	A Study On Work Stress In Women Employees In Coimbatore District	R. Maheswari, N. Brindha	Management	144-145
55.	Accounting For Carbon Credits	Dr. Gaurav Lodha	Management	146-148
56.	A Literature Review On The Relationship Between Training (As A Core Responsibility Of HRM) And Firm Performance.	Priya Sharma, Dr. S. L. Gupta	Management	149-152
57.	A Study On Agricultural Marketing Practices And Constraints With Special Reference To Paddy / Rice.	CM Maran, Dr Raja Pranmalai	Management	153-156
58.	Performance Of Share Price Of Indian Public Sector Banks And Private Sector Banks - Comparative Study	V. Prabakaran, D. Lakshmi Prabha	Management	157-158
59.	Intuitionistic Fuzzy Primary And Semiprimary Ideal	Dr. M.Palanivelrajan, S.Nandakumar	Mathematics	159-160
60.	Significance Of Umbilical Artery Velocimetry In Perinatal Outcome Of Fetuses With Intrauterine Growth Retardation.	Dr G S Shekhawat	Medical Science	161-163
61.	Large Adult Sacrococcygeal Teratoma: A Case Report And Review Of Literature.	Dr.Yavalkar Pa, Dr. Naik Am.	Medical Science	164-165
62.	Epidural Steroid In Low Back Ache	Dr. B. L. Khajotia, Dr. Neelam Meena	Medical Science	166-167
63.	A Comparative Study Of Second Trimester MTP With Use Of Vaginal Misoprostol And Extra Amniotic Instillation Of Ethacridine Lactate.	Dr. Ketaki Junnare, Dr. Sameer Darawade, Dr. Priyamvada Shah, Dr. Swati Mali.	Medical Science	168-169
64.	A Novel Surgical Approach For Treatment Of Sui –TVT Obturator Tape	Dr. Ketaki Junnare, Dr. Durga Karne, Dr Neelesh Risbud.	Medical Science	170-171
65.	Advantage Of Fallopian Tube Sperm Perfusion Over Intra-Uterine Insemination When Used In Combination With Ovarian Stimulation For The Treatment Of Unexplained Infertility.	Dr G S Shekhawat, Dr Pushpalata Naphade	Medical Science	172-175

66.	"Bilateral Sertoli-Leydig Cell Tumor In Postmenopausal Female" A Case Report	Dr. Priyamvada Shah, Dr. Ketakijunnare, Dr. DurgaKarne	Medical Science	176-178
67.	Pretreatment With Ephedrine For Prevention Of Pain Associated With Propofol Injection.	Dr. Kavita U Adate, Dr. Jyoti A. Solanki	Medical Science	179-181
68.	Does The Structured Teaching Programme Influence The Knowledge About Physical Wellbeing Of School Children? A Quasi Experimental Study.	Dr. S. Valliammal, Dr. Ramachandra, Raja Sudhakar	Nursing	182-184
69.	An Approach For Information Retrieval For Bookstores Using Formal Ontology	Sumit Jain, C.S.Bhatia	Ontology	185-187
70.	Analgesic Activity Of Anacardium Occidentale	A. Devadoss, C. Aparna, K. Parimala, D. Sukumar	Organic Chemistry	188-190
71.	Behaviourism : Science Or Metaphysics	Dr. Jatinder Kumar Sharma	Philosophy	191-193
72.	Multi-Dimensional Perspectives Of Obesity And Its Management	S. Dhanaraj, Dr. A. Palanisamy	Physical Education	194-196
73.	Refractive Index, Density, Excess Molar Volume, Excess Molar Refraction For Liquid Mixtures (Ethyl Ethanoate + Benzene Derivatives) At Different Temperatures	Sheeraz Akbar, Mahendra Kumar	Physics	197-199
74.	Refractive Indices, Densities And Excess Properties For Liquid Mixtures (Cetane + Alkanols) At Different Temperatures	Sheeraz Akbar, Mahendra Kumar	Physics	200-202
75.	Capacity Building For Effective Local Governance: Indian Perspectives	Dr. Pralhad Chengte	Political Science	203-205
76.	Psychological Well-Being: A Study Of Non-Institutionalized Aged	Dr. Pankaj S. Suvera	Psychology	206-208
77.	Women Empowerment Through N R E G S (With Reference To State Of West Bengal)	Dilip Kumar Karak	Social Sciences	209-211
78.	Effect Of Selected Yogic, Aerobic And Laughter Exercises On Blood Pressure Of High School Boys	Dr.Manjappa.P, Dr.Shivarama Reddy. M	Sports	212-216
79.	Association Study Between Lead And Copper Accumulation At Different Physiological Systems Of Goat By Application Of Canonical Correlation And Canonical Correspondence Analyses	Partha Karmakar, Debasis Mazumdar, Seema Sarkar (Mondal), Sougata Karmakar	Statistics	217-219
80.	Development Of Silver -Silica Nanocomposite For Novel Humidity Sensing Application	Surender Duhan	Technology	220-221

## Research Paper

## Medical Science



## Epidural Steroid In Low Back Ache

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## ABSTRACT

Overall results of present study have shown that epidural steroid therapy in selected cases of low back ache with or without radicular pain is a useful and innocuous therapeutic measure to relieve pain. The combination of Triamcinolone acetate and Bupivacaine 0.5% produces better results (76%) in present series

Out of 50 patients 25 (50) % were totally relieved, 13 patients (26%) got sufficient relief of pain but needed lumbar support. There were only 12 patient (24%) who did not respond this therapy.

Mechanism of action of this injection, there has been much speculation, keeping in view the small quantity of fluid injected in our series the therapeutic effect is mainly due to effect of drugs rather than mechanical advantage of breaking adhesions etc. , it seems logical to assume that strong anti-inflammatory effect of steroids can be utilized best by epidural injection of long acting steroid and long acting anaesthetic.

Keywords : Epidural steroid, Triamcinolone, Bupivacaine, Sciatica

## Review

The first documented epidural medication injection, which was performed using the caudal approach was performed in 1901, when cocaine was injected to treat lumbago and sciatica. According to reports, epidurals from the 1920s-1940s involved using high volumes of normal saline and local anesthetics. Injection of corticosteroids into the epidural space for the management of lumbar radicular pain was first recorded in 1952<sup>11</sup>

Various forms of treatment have been tried for low back ache with no definite conclusion as to what is the best.<sup>3,8</sup> The concept of epidural injection for relieving back ache by using large volumes of normal saline and local anesthetics in the form of extradural injections is not new.<sup>4,11</sup> Also, epidural steroid injection for low back ache has been used by various investigators.<sup>5,6,12</sup>

## Material And Methods

This study was under taken in orthopaedics department, S.P. Medical college and associate group of hospital, Bikaner to determine efficacy of epidural steroid injection for low back ache patients.

For this, study from the backache clinic 50 cases presenting with acute Lumbo-sciatic pain, chronic or resistant low back ache with sciatica, recurrent cases of back pain with sciatica already treated by conservative or surgical methods but still complaining of pain, were selected for the injection therapy.

All patients were already examined clinically and investigated to rule out infection or neoplasm as a cause of pain.

A mixture of 40 mg. of Triamcinolone acetate , 10 ml. of 0.5% Bupivacaine and 10 ml. of normal saline of distilled water was injection into the epidural space through sacral hiatus.

Patients were either kept in the hospital or sent home with the advice to take rest for 24 hours.

All patients were reviewed at weekly intervals to assess relief in pain, stiffness of back and improvement in S.L.R. If no relief, injections were repeated at weekly intervals and maximum of three injections were given. Cases were followed regularly for a period of three to six months from the date of first epidural injection.

To evaluate final functional results patients were divided into three groups 1 those suffering from severe Lumbo-sciatic pain for the first time (acute group) 2 those complaining of continuous pain of varying intensity of long duration (chronic group), and those 3 complaining of recurrent attacks of pain and had treatment with relief previously (Recurrent).

Table I Treatment given prior to Epidural injection

S.No	Treatment given	No. of patients	Percentage
1.	Bed rest with analgesics	16	32%
2.	Bed rest, Analgesics and traction etc.	13	26%
3.	Analgesics, exercises and lumbar support	12	24%
4.	Surgery	3	6%
5.	No treatment	6	12%
Total		50	100%

The result of treatment were classified as :

Excellent - Patient was completely relieved of his/her symptoms and returned to previous job :

Good - Patient recovered sufficiently but needed some form of assistance like lumbar support and mild analgesics to resume work.

Poor - When patient had no relief.

Table-II-Results of Epidural Therapy

Groups	Total no. of Patient	RESULTS		
		Excellent	Good	Poor
I-Acute group	8	4 (50%)	2 (25%)	2 (25%)
II-Chronic group	25	11 (44%)	7 (28%)	7 (28%)
III-Recurrent group	17	10 (59%)	4 (24%)	3 (17%)
Total	50	25 (50%)	13 (26%)	12 (24%)

### Observation

Out of 50 cases treated by epidural steroid injections, male female ratio was 2:3. The age of these patients varied from 25-70 years.

Sciatica (Radicular pain) was present in 24 patients (48%), neurological deficit in 7 patients (14%), 3 patients (6%) had only sensory deficit, and 4 patients (8%) had sensory deficit with varying degrees of EHL weakness.

Duration of symptoms varied from few days to three years. One case treated with epidural steroid injections developed vasovagal attack.

### Discussion

Over all results of present study have shown that epidural steroid therapy in selected cases of low back ache with or without radicular pain is a useful and innocuous therapeutic measure to relieve pain. The combination of Triamcinolone acetate and Bupivacaine 0.5% produces better results (76%) in present series) than other combinations used by various authors<sup>4</sup>. George Wallace et al<sup>3</sup> stated that epidural

injections through lumbar route produced better results by depositing the drug close to the site of lesion, though the success rate was 51 percent.

Best results were obtained in patients having recurrent attacks of low back pain (59%) followed by patient with acute pain (50%) and lastly by patients suffering from chronic low back pain (44%).

Out of 50 patients, 25 (50%) were totally relieved and did not require any further treatment, 13 patients (26%) got sufficient relief of pain but needed either occasional lumbar traction or lumbar support to carry on their normal day-to-day activities. There were only 12 patients (24%) who did not respond to this method of treatment. One patient (2%) in recurrent group had Discectomy later on.

As regards mechanism of action of this injection, there has been much speculation, keeping in view the small quantity of fluid injected in our series the therapeutic effect is mainly due to effect of drugs rather than mechanical advantage of breaking adhesions etc. Based on the theory that the cause of pain is inflammation in majority of cases rather than pressure on nerve roots<sup>5</sup>, it seems logical to assume that strong anti-inflammatory effect of steroids can be utilized best by epidural injection of long acting steroid and long acting Anaesthetic.

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Printed at Unique Offset, Novatsing Rupam Estate, Opp. Abhay Estate, Tavdipura, Shahibaug, Ahmedabad