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Original Article

The Inability of the Clinical Picture to Characterize Pain from Facet Joints

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Facet joints, as a source of low back pain, have attracted considerable attention and been a source of controversy in recent years. Significant progress has been made in precision diagnosis of chronic low back pain with neural blockade. In the face of less than optimal diagnostic information offered by imaging and neurophysiologic studies, and in the face of mounting evidence showing lack of correlation between clinical features, physical findings, and diagnosis of facet joint mediated pain, controversial features have been described to validate the assumption of facet joint mediated pain by set criteria.

The prevalence of lumbar facet joint mediated pain in patients with chronic low back pain has been established in this study as 42% using controlled comparative local anesthetic diagnostic blocks, with a false positive rate of 37%. The evaluation of role of various clinical features described in the literature, six features showed negative correlation with facet joint mediated pain. However, these six feature involved only a small number of patients.

In conclusion, facet joint mediated pain is a common entity in patients suffering with chronic low back pain nonresponsive to conservative care, who present to a nonuniversity pain management practice. However, the history, clinical features, and radiological features are of no significance or assistance in making the diagnosis of facet joint mediated pain with certainty.

Keywords: Chronic low back pain, facet joint mediated pain, clinical features, comparative anesthetic blocks

Of all the structures responsible for causation of chronic low back pain: discs, vertebral bodies, nerve root dura, muscles, ligaments, and fascia – facet joints continue to be the most controversial. Facet joint is used to describe paired synovial joints between the posterior elements of adjacent vertebrae. In the lumbar spine, facet joints are innervated by medial branches of the dorsal rami of the spinal nerves from L1 - L4 levels, and L5 dorsal ramus. Facet joints have been implicated to produce low back and lower extremity pain since 1911 (1). A preponderance of evidence supports the existence of lumbar facet joint pain (2-24), though there are a few detractors (25-28). Estimates of the prevalence of lumbar facet joint pain have ranged from 7% to 75% among patients reporting back pain. On the basis of controlled, comparative, local anesthetic diagnostic blocks, the prevalence in the United States of lumbar facet joint pain in patients with chronic low back pain has been established as 15% in a sample of injured workers (4) and 40% to 45% in a pain management practice (5, 6). In an Australian study with patients in a rheumatology practice, the prevalence was 40% (7). However, methodology utilized for the diagnosis of facet joint mediated pain continues to be an enigma and controversial. The majority of reports indicate no correlation between clinical picture, magnetic resonance imaging (MRI), computed axial tomography (CT) scanning, dynamic bending fields, single photon emission (SPECT) scanning, and radionuclide bone scanning (2-12, 25, 29-31). It was reported that controlled diagnostic blocks appear to be the only means available of identifying the source of facet joint pain (2-9, 12), even though controversy also exists in this area (13).

Over the years, multiple investigators have proposed a number of criteria to diagnose facet joint mediated pain without interventions such as diagnostic blocks. The situation is complicated by the fact that most maneuvers used in physical examinations are likely to stress several structures simultaneously, especially the discs, muscles, and facet joints, thus failing to provide any reasonable diagnostic criteria. The results of most studies fail to show a correlation between radiological imaging findings and facet joint mediated pain (12, 15, 25, 32, 33). A multitude of

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investigators have attempted to correlate demographic features, pain characteristics, physical findings, and other signs and symptoms with the diagnosis of facet joint pain. Various characteristics described in the literature are compiled in Table 1. Of those, the criteria developed by Fairbank et al (15) and Helbig and Lee (16) are of importance. However, Schwarzer et al (29) evaluated patients with chronic low back pain and no history of previous lumbar surgery to test the clinical criteria of Fairbank et al (15) and Helbig and Lee (16) for facet joint mediated pain and concluded that these criteria were unreliable in distinguishing pain of the zygapophyseal joint origin from pain of other origins. Revel and coworkers (32) identified patients who responded to single facet joint anesthesia to be more likely to be older, free of pain exacerbated by coughing, well relieved of pain when recumbent, free of pain exacerbated by forward flexion, and without increased discomfort on hyperextension and extension-rotation. Subsequently, Revel and coworkers (33), in another study, prospectively compared the efficacy of facet joint injection either with lidocaine or saline with and without the clinical criteria that were determined in the previous study (32). Revel and coworkers (33) concluded that the presence of five among seven variables distinguished 92% of the patients responding to lidocaine injection and 80% of those not responding to lidocaine. These criteria are in contrast to previous criteria described by a multitude of authors, which suggested a clinical picture of facet joint mediated pain (15, 14-23, 25, 29).

Table 1. *Compilation of a multitude of criteria described by various authors showing correlation or lack thereof*

Demographic Features	**Physical Findings**
Older age (25, 32, 33)	Pain with flexion (32, 33)
Lack of response to 1 to 2 weeks of conservative care (30)	Pain with deflexion (25, 32, 33)
Prior history of low back pain (25)	Pain with extension (14, 16, 25, 32, 33)
Postsurgery (5, 6, 18, 21)	Pain with lateral rotation (16, 19)
Work status (20, 21, 22, 23)	Pain with sitting and bending (15)
Acute back pain (15)	Relief in supine position (32, 33)
Occupational injury (21)	Normal gait (25)
Pain Characteristics	Muscle spasm (25)
Low back, hip, buttock pain (14, 16, 17, 19, 30)	Paravertebral tenderness (14, 16, 17)
Bilateral pain (31)	Increase with cough/Valsalva (25, 32, 33)
Back pain with groin or thigh pain (16)	Straight-leg raising (5, 6, 14, 15, 17)
Pseudoradicular pain (19)	Negative neurological examination (14, 17, 30)
Leg pain (16, 25)	**Other Findings**
High pain rating (20, 22, 23)	> three inappropriate signs (20, 22, 23)
Cramping pain above the knee (14)	Facet arthritis (16, 17, 18)
Paresthesiae (14)	
Low back stiffness in the morning (14)	

Data derived and modified from various publications as referenced above.

Commenting on this Revel and coworkers' study (33), Bogduk (34) stated,

> Facet injections have become a growth industry following the results of studies in the last four years that vindicate their diagnostic validity. However, a problem that obtains is the risk of over-use and wastage. The prevalence of lumbar zygapophysial joint pain is barely greater than 10%. This means that for every positive diagnosis made there will be nine patients who undergo blocks to know avail. Given that it could take three blocks to exclude zygapophysial joint pain in a patient, for every patient with a positive diagnosis, 27 blocks will have been performed in patients who prove to be negative. Consequently, there is a need for some form of screening, before diagnostic blocks are performed essentially arbitrarily on all patients with back pain, just in case they have zygapophysial joint pain.

This commentary is in contrast to Bogduk and colleagues' earlier publications, emphasizing that facet joints contribute to significant amounts of pain in 15% to 40% of patients suffering with chronic low back pain (3, 4, 7, 8, 12, 29). In addition, Bogduk (35) also criticized pain-provocation tests for the assessment of sacroiliac joint dysfunction by Broadhurst and Bond (36), a study which was similar to the study by Revel and coworkers (33). Dreyfuss and colleagues (9, 10) also questioned the criteria of Revel and coworkers. Our results and the results of others including many articles co-authored by Bogduk are in disagreement with the findings of Revel and coworkers and comments by Bogduk. While it is largely agreed that blocks of a facet joint can be performed to test the hypothesis that the target joint is the source of a patient's pain, Bogduk (8) has proposed that this hypothesis is tested by anesthetizing the target joint rather than provocation of pain from a joint because that is an unreliable criterion and the relief of pain is the essential criterion (3, 8). Bogduk (8) proposed that the controlled diagnostic blocks are considered as the only means available of identifying facet joints as a source of low back pain (8, 37). It is also proposed that a convenient alternative to placebo blocks, advocated in pain literature, is the use of a series of two local anesthetic blocks (8, 37-41).

This study was designed to explore various issues of controversy and to demonstrate correlation or lack thereof with previous investigations. The issues explored included the prevalence of lumbar facet joint pain in a consecutive series of patients with chronic low back pain using double diagnostic blocks, and the correlation of clinical features described by various authors of responders and nonresponders to double diagnostic blocks.

METHODS

This study was designed to test a number of clinical features described by various authors, with additional criteria added. Following the development of criteria, a study population of 200 consecutive patients seen in one private pain management practice, in a nonuniversity setting, was included. All patients presented for pain management. During this study, 396 patients presented to this physician and 212 patients presented with a chief complaint of low back pain with or without lower-extremity pain. Patients younger than 18 years or older than 90 years, those who exhibited neurological deficits, those who had pain for less than 6 months, those who had responded to conservative management, or those who had undergone neural blockade in the past were excluded.

Evaluation of the patients included completion of a standard comprehensive pain management questionnaire, history, physical examination by a physician, and evaluation of the results of all procedures and investigations. Evaluation of these patients was geared to include all the elements to be tested in this hypothesis. The nature of the study and the potential hazards of the procedures were explained to all patients, all of whom consented to participate. Facet joints were investigated with diagnostic blocks using lidocaine 1% (Xylocaine®) initially, followed by bupivacaine 0.25% (Marcaine®), usually 2 weeks later. The blocks were performed by one investigator in an operating room equipped with fluoroscopy, with the patients in prone position. The blocks, performed under appropriate monitoring with intravenous access and mild sedation with midazolam, were performed at each of the medial branches at L1 through L4 and L5 dorsal ramus using a 3.5-inch spinal needle, 22 gauge. Each nerve was infiltrated with 0.4 to 0.6 mL of either 1% lidocaine or 0.25% bupivacaine. The blocks were performed on the ipsilateral side in patients with unilateral pain, or bilaterally in patients with bilateral or midline pain.

Following the blocks, the patients were examined and painful movements were performed, with 75% relief of pain in

the symptomatic area following the local anesthetic block considered as a definite response. Confirmatory blocks using 0.25% bupivacaine were also performed at the same levels as the first injection if definite relief was obtained.

Demographic features of age, mode of onset of pain, work status, history of surgery, various historical features, and pain characteristics were obtained from the patient history and recorded. The patient's age was calculated from his/her birth date, whereas duration of pain was calculated based on the patient's memory of the onset of pain to the closest month, when available. Pain characteristics were obtained from the history, comprehensive pain questionnaire, and pain diagram. Pain rating was obtained from a ten-point numeric pain-rating scale. The results of findings were based on examination of the patient. Inappropriate symptoms and signs were obtained as per the descriptions of Waddell and colleagues (42, 43). The presence or absence of facet joint arthritis was based on independent reports of the radiologist(s) in correlation with the symptomatology. Osteoporosis was determined by peripheral bone mass densitometry. Body mass index (BMI) was calculated using the formula of weight in kilograms divided by height in meters squared (BMI = kg/m^2). The diagnosis of somatization disorder was established from Millon Clinical Multiaxial Inventory II evaluation.

Table 2. *Patient characteristics*

		Men	Women	Total (Pooled)
Number of Patients		80	120	200
Age (years)	Range	22 - 82	14-87	14 - 87
	< 65	91%*	77%	83%
	> 65	9%	23%	17%
	Mean + SEM	49.3 + 1.50	48.7 + 1.51	47.3 + 1.09
Weight (lbs)	Range	115 to 350	84 to 324	84 to 350
	Mean + SEM	204.3 + 5.58	67.5 + 4.26	182.2 + 3.62
Height (inches)	Range	61 to 77	53 to 73	53 to 77
	Mean + SEM	69.9 + 0.35	64.7 + 0.27	66.8 + 0.28
BMI	Normal < 25	22%	43%	35%
	Overweight 25-30	42%	23%	30%
	Obese > 30	36%	34%	35%
Mode of Onset of Pain	Occupational	36%	14%	23%
	Nonoccupational	26%	26%	26%
	Nontraumatic	38%	60%*	51%
Duration of Pain (years.) Mean + SEM	< 1	20%	22%	21%
	1-4	26%	25%	25%
	>4	54%	53%	53%
	Mean + SEM	1.56 + 0.173	1.61 + 0.153	1.59 + 0.115
Postlumbar Laminectomy		34%	20%	25%

Data were recorded on a database using Microsoft® Access®; the SPSS Version 9.0 statistical package was used to generate the frequency tables and the chi-squared statistic was used to test the significance difference between groups. Fisher's Exact Test was used wherever expected value was less than five. Student t test was used to test mean difference between gender. A BMI of 25 to 29.9 was considered as overweight, while a BMI of 30 or over was considered as obese. Results were considered statistically significant if the p value was less than 0.05.

RESULTS

Of the 200 patients included in the study, 37% of the patients were drawn from the county of the practice location, and 63% were drawn from various other counties within the state and surrounding states. Thirty-four percent of the patients were evaluated with unilateral blocks, 66% with bilateral blocks, 92% with levels from L3-L5, 5% from L2-L5, and 3% from L1-5.

Table 3. *Comparison of the results of single blocks (lidocaine) and double blocks (lidocaine and bupivacaine)*

Prevalence 42%	**Sensitivity: 100%**
Specificity: 63%	**False Postive Rate 37%**

	Double Blocks	
Single Blocks	Positive	Negative
Positive	84	43
Negative	0	73

Table 4. *Frequency and correlation of criteria described by Revel and coworkers (33) to diagnose facet joint mediated pain confirmed by double local anesthetic blocks*

Clinical Feature(s)		Double Blocks		P value
		Positive	Negative	
Age > 65 years	Yes (35)	51%	49%	0.213
	No (165)	40%	60%	
Pain well relieved in supine position	Yes (176)	45%*	55%	0.025
	No (24)	21%	79%	
Absence of pain exacerbation by coughing	Yes (177)	43%	57%	0.456
	No (23)	35%	65%	
Absence of pain exacerbation by forward flexion	Yes (34)	38%	62%	0.625
	No(166)	43%	57%	
Absence of pain exacerbation by deflexion	Yes (111)	43%	57%	0.691
	No (99)	40%	60%	
Absence of pain exacerbation by hyperextension	Yes (24)	33%	67%	0.359
	No (176)	43%	57%	
Absence of pain exacerbation by extension - rotation	Yes (138)	41%	52%	0.766
	No (62)	43%	57%	
Traumatic onset of the pain	Yes (98)	41%	59%	0.740
	No (102)	43%	57%	

The p values are derived from the χ^2 test on 84 patients with facet joint pain and 116 without facet joint pain conformed by double local anesthesia blocks.

Demographic data are shown in Table 2, with no significant differences noted among men and women with regard to weight, height, BMI and duration of pain. Significant differences were noted between men and women less than 65 years of age, with more elderly patients seen among women. Nontraumatic onset of pain was more commonly seen in women.

All patients underwent single blocks with lidocaine. One hundred and twenty-seven, or 64%, of the patients reported a definite response to lidocaine blocks. Confirmatory blocks with bupivacaine were performed in all 127 patients, with 84 patients, ie, 42% of the total sample or 66% of the lidocaine-positive group, reporting definite response with improvement in their pain, with a false positive rate of 37% (Table 3).

For the purposes of the calculation of prevalence among patients evaluated at an interventional, multidisciplinary, private pain management practice, all the patients who withstood double blocks with a definite response were considered positive, with a prevalence rate of facet-joint pain in chronic low back pain of 42% (95% CI; 35, 42). Using the response to double blocks as the criterion standard, the resultant false-positive rate was 37% (95% CI; 32, 42) (Table 3). Following the determination of prevalence of facet joint-mediated pain, the clinical criteria, as shown in Tables 4 to 8, were evaluated to show the relationship between the history, demographic findings, physical findings, radiographic findings, and diagnostic blocks.

Frequency and correlation of criteria described by Revel and coworkers (33) is shown in Tables 4 and 5. Unfortunately, our study failed to show any correlation of the criteria described by Revel and coworkers (33) to diagnose facet joint mediated pain confirmed by double local anesthetic blocks.

Table 6 shows the influence of demographic features and pain characteristics in the characterization and diagnosis of low back pain mediated by facet joints. Significant negative correlation was noted with postsurgical patients, patients with a history of occupational injury, and patients experiencing back pain with straight leg raising in the double block-positive group.

Evaluation of the relationship of physical findings and other features with the characterization and diagnosis of low

Table 5. *Correlation of criteria described by Revel and coworkers (32,33) to diagnose facet joint mediated pain confirmed by double local anesthetic blocks*

Revel's Criteria	Double block		P value
	Positive	Negative	
Positive group (N=29)	38%	62%	0.631
Negative group (N=171)	43%	57%	

Positive group - (patients with five or more of the seven clinical characteristics)
Negative group - (patients with fewer than five clinical characteristics)
The p values are derived from the χ^2 test on 84 patients with facet joint pain and 116 without facet joint pain conformed by double local anesthesia blocks.

Table 6. *Influence of demographic features and pain characteristics and diagnosis of low back pain mediated by facet joints*

		Double Block		P Value
		Positive	Negative	
Old age	Yes (39)	54%	46%	0.095
	No (161)	39%	61%	
Prior history of low back pain	Yes (146)	40%	60%	0.218
	No (54)	47%	53%	
Postsurgery	Yes (59)	29%	71%	0.010
	No (141)	48%	52%	
Mode of onset of the pain	Occupational (46)	26%*	74%	0.020
	Non-occupational (52)	54%	46%	
	Non Traumatic (108)	43%	57%	
Positive work status	Yes (47)	38%	62%	0.383
	No (82)	43%	57%	
Gender	Male	36%	64%	0.115
	Female	46%	54%	
Duration of pain (years)	<=1	42%	58%	0.309
	1-4	33%	67%	
	> 4	46%	54%	
BMI	Normal	48%	52%	0.144
	Overweight & Obese	39%	61%	
Low back, hip, buttock pain	Yes (198)	41%	59%	0.175
	No (2)	100%	0%	
Bilateral pain	Yes (139)	45%	55%	0.115
	No (61)	33%	67%	
Back pain with groin or thigh pain	Yes (65)	45%	55%	0.663
	No (133)	41%	59%	
Pseudoradicular pain	Yes (108)	40%	60%	0.416
	No (90)	46%	54%	
Leg pain	Yes (126)	40%	60%	0.245
	No (74)	47%	53%	
Subjective pain scale of > 80/10	Yes (72)	44%	56%	0.707
	No (128)	41%	59%	
Cramping pain above knee	Yes (87)	40%	60%	0.618
	No (113)	41%	59%	
Paraesthesiae	Yes (159)	39%	61%	0.082
	No (41)	54%	46%	
Low back stiffness in morning	Yes (120)	40%	60%	0.632
	No (80)	44%	56%	

The p values are derived from the c2 test and p values less than 0.05 considered as significant.

Table 7. *Correlation of physical findings and other features with diagnosis of facet joint mediated pain in chronic low back pain*

		Double Block		P Value
		Positive	Negative	
Pain with flexion	Yes (166)	43%	57%	0.625
	No (34)	38%	62%	
Pain with deflexion	Yes (111)	43%	57%	0.691
	No (89)	40%	60%	
Pain with extension	Yes (174)	42%	58%	0.695
	No (26)	38%	62%	
Pain with lateral rotation	Yes (138)	41%	59%	0.766
	No (62)	43%	57%	
Pain with sitting and bending	Yes (92)	45%	55%	0.498
	No (108)	40%	60%	
Relief in supine position	Yes (176)	45%	55%	0.025
	No (34)	21%	79%	
Normal gait	Yes (186)	44%	56%	0.029
	No (14)	14%	86%	
Muscle spasm	Yes (103)	39%	61%	0.432
	No (97)	45%	55%	
Paravertebral tenderness	Yes (179)	44%	56%	0.188
	No (21)	29%	71%	
Increase with cough/Valsalva	Yes (28)	43%	57%	0.921
	No (172)	42%	58%	
Back pain with straight leg raising	Yes (115)	36%	64%	0.068
	No (85)	49%	51%	
Neurological examination	Negative (163)	47%	53%	0.005
	Positive (37)	22%	78%	
Facet arthritis	Yes (72)	43%	57%	0.821
	No (128)	41%	59%	
Osteoporosis	Yes (67)	55%	45%	0.007
	No (133)	35%	65%	
>three inappropriate symptoms	Yes (57)	35%	65%	0.211
	No (143)	45%	55%	
>three inappropriate signs	Yes (93)	48%	52%	0.074
	No (107)	36%	64%	
Somatization disorder	Yes	44%	56%	0.712
	No	41%	59%	

The p values are derived from the χ^2 test and p values less than 0.05 considered as significant.

Table 8. *Frequency of the clinical characteristics in responders and nonresponders with controlled double block anesthesia*

	Number	Responders	Non-responders	P Value
Presence of at least four features	15	7%	93%	0.005
Pain not relived in supine position	24	21%	79%	0.025
History of surgery	59	29%	71%	0.010
Occupational onset	46	26%	74%	0.020
Abnormal gait	14	14%	86%	0.029
Positive neurological examination	37	22%	88%	0.005
Back pain with straight leg raising	115	36%	64%	0.068

The p values are derived from the χ^2 test or Fisher's Exact Test.

back pain of facet joint origin, confirmed by double block anesthesia, showed negative correlation with normal gait, negative neurological examination, relief in supine position, and osteoporosis (Table 7).

Overall, it was noted that there were six features that provided negative correlation. These were pain not relieved in the supine position, history of surgery, occupational onset, abnormal gait, positive neurological examination, and no evidence of osteoporosis. Following this, we further analyzed the data with patients who were positive for at least four features. These are shown in Table 8. Unfortunately, there were only 15 out of 200 patients who had at least four of the features described above. In addition, abnormal gait was seen in only 14 of the patients, pain was not relieved in the supine position in 24 patients, and positive neurological examination was seen in only 37 patients. In contrast, there was no evidence of osteoporosis in 133 patients, and a history of surgery was seen in 59 patients. As shown in Table 8, of the 15 patients who had at least four features, 7% responded to the double blocks with the diagnosis of facet joint mediated pain. Thus, it appears that, out of 100 patients, it will be possible to pick only 7 or 8 patients who will meet the criteria and can be judged with reasonable probability that they will respond; but 92 or 93 patients will not respond to double block anesthesia, or the majority of the patients will have other causes of back pain.

DISCUSSION

The prevalence of lumbar facet joint mediated pain of 42% established in this study is similar to that of our previous two studies (5, 6), as well as a study by Schwarzer et al (7). The criteria adapted for the diagnosis of lumbar facet joint pain in this study are as stringent as proposed by others in the literature. A false positive rate of 37% is also in agreement with a multitude of previous studies (3-6, 12, 24, 30). This study showed a lack of correlation with the majority of clinical features, as described in the past by multiple authors. We were unable to correlate the criteria described by Revel et al (32, 33), either with responders or non-responders to single blocks or double blocks.

By independent correlation of all features evaluated, we were able to determine six features with negative correlation, namely pain not relieved in the supine position, history of surgery, occupational onset of back pain, abnormal gait, positive neurological examination, and no evidence of osteoporosis. This is in agreement with reports of Dreyfuss and colleagues (9, 10, 29) and earlier reports of Bogduk (8) and others (3-7, 11, 12) but is contrary to reports of Revel and coworker (32, 33) and Bogduk (34). Dreyfuss and Dreyer (10) stated, "No noninvasive pathonomic finding or constellation of findings can definitely distinguish lumbar z-joint mediated pain from other sources of low back pain. The diagnosis of lumbar z-joint pain remains one of exclusion and confirmation by analgesic injections." We were able to develop a set of criteria which could be used in the diagnosis of facet joint pain (Table 8). Patients presenting with at least four features will reasonably not have facet joint mediated pain at least 93% of the cases. However this number of patients is extremely low. Thus, this will be applicable only in 7% or 8% of the patients presenting to a pain management practice with low back pain. Lilius and coworker (20, 22, 23) concluded in their studies that the outcome depended on the patient's biopsychosocial ability of self-facilitated improvement and suggested that somatic treatment does not work in the presence of persistent high levels of inappropriate signs. However, evaluation for somatization disorder and evaluation of inappropriate signs and symptoms failed to show any significant correlation with the responses. These findings once again emphasize the unfortunate interpretations and alteration of Waddell signs and symptoms all too often by physicians, only to assert that there is nothing wrong with the patient with claims that either the patient is exaggerating or malingering (42-45). In addition, Wallis and colleagues (46) showed that pain relief achieved following radiofrequency facet denervation

not only returned these patients to work, but also resolved all the psychological problems, questioning the extraordinary focus of psychological status. Lewinnek and Warfield's (17) consideration of a negative screening examination for sciatica and other causes of back pain, low back pain with tenderness over the facet joints, and radiological changes of degenerative joint disease within the facet joints as the most important key factors was seen in our study. A statistically significant difference was noted only for negative neurological examination and lack of sciatica, whereas tenderness and radiological changes of degeneration in facet joints was not statistically significant.

Thus, once again, it is demonstrated that facet joint mediated pain is a significant issue in many patients suffering with chronic low back pain. Once again, there is no correlation between the history, clinical findings, patient's biopsychosocial status, or radiological findings and the diagnosis of facet joint mediated pain confirmed by double local anesthetic blocks. Even before Bogduk's reversal of position, the issue of control blocks by means of medial branch nerve blocks with two different local anesthetics became a contentious issue among some quarters (8, 13, 47, 48). Thus, controlled diagnosis blocks are the only means available of identifying facet joint mediated pain.

CONCLUSION

The results of this study echo numerous concerns of the reliability of the history, physical findings, and uncontrolled single blocks in the diagnosis of facet joint mediated pain in chronic low back pain. This study once again confirmed the prevalence of facet joint mediated pain as 42% in patients suffering with chronic low back pain evaluated at a private pain management practice. This study showed a higher incidence of facet joint mediated pain in nonsurgical patients, in patients with negative neurological findings, patients with a negative straight leg raising test, and patients without osteoporosis. However, we were unable to determine a constellation of symptoms or signs to diagnose facet joint mediated pain, with certainty, without subjecting the patients to controlled local anesthetic diagnostic blockss.

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