

Conservative Treatment Approaches in Low Back Pain

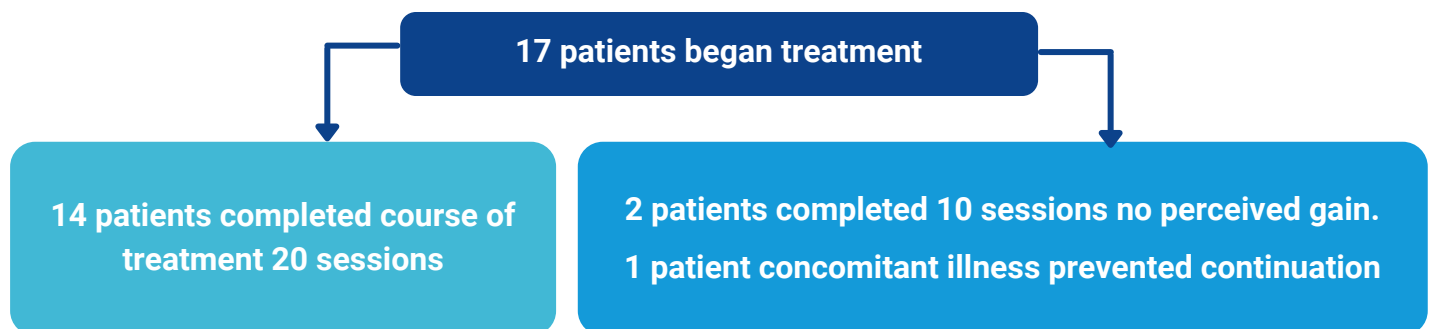
IDD observational study, outcomes for pain and disability index measures

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INTRODUCTION

A prospective outcome study was conducted on patients with chronic low back pain due to degenerative disc disease, herniated nucleus pulposus and facet arthropathy. Between March 2003 and January of 2004, ten physicians in private practices across the United States, with a high volume of patients with spinal disorders, participated in this study. Specialties included Inter Medicine/ Rheumatology, Neurology, Orthopaedic, and Pain Management. Prior to entering the study, the patients were evaluated by the physician and diagnosed with a painful lumbar degenerative condition based on history and physical and appropriate imaging studies. Prior to each treatment, the patients completed an Oswestry Disability Index (ODI) questionnaire¹. The ODI scores range from 0-50. A change of more than 4 points is considered clinically meaningful⁴. Each patient was treated for 25 min with decompression

INTENTION TO TREAT FLOW DIAGRAM



Inclusion criteria

- Prior failed treatment from osteopathy, physiotherapy, chiropractor for low back pain due to disc or facet dysfunction
- Prior failed facet joint injections or failed nerve ablation for low back pain due to disc or facet dysfunction
- MRI scan to indicate, either herniated or prolapsed disc bulge, degenerative disc disease, sciatica, foraminal stenosis with or without radicular pain.

Exclusion criteria

- Osteoporosis (T score -2.5 to -2.8 or greater)
- Unresolved compression fractures on the spine
- Spondylolithesis
- Spondylolysis
- Open growth plates
- Severe canal stenosis
- Surgical hard ware in spine
- Severe scoliosis
- Abdominal aortic aneurysm
- Vertebral fusions
- Pacemaker
- Pregnancy
- Genetically unstable or defects of the spine

DEMOGRAPHIC PROFILE OF SUBJECTS

Sex	12 male	5 female
Age range	34-71 years male	40-68 years female

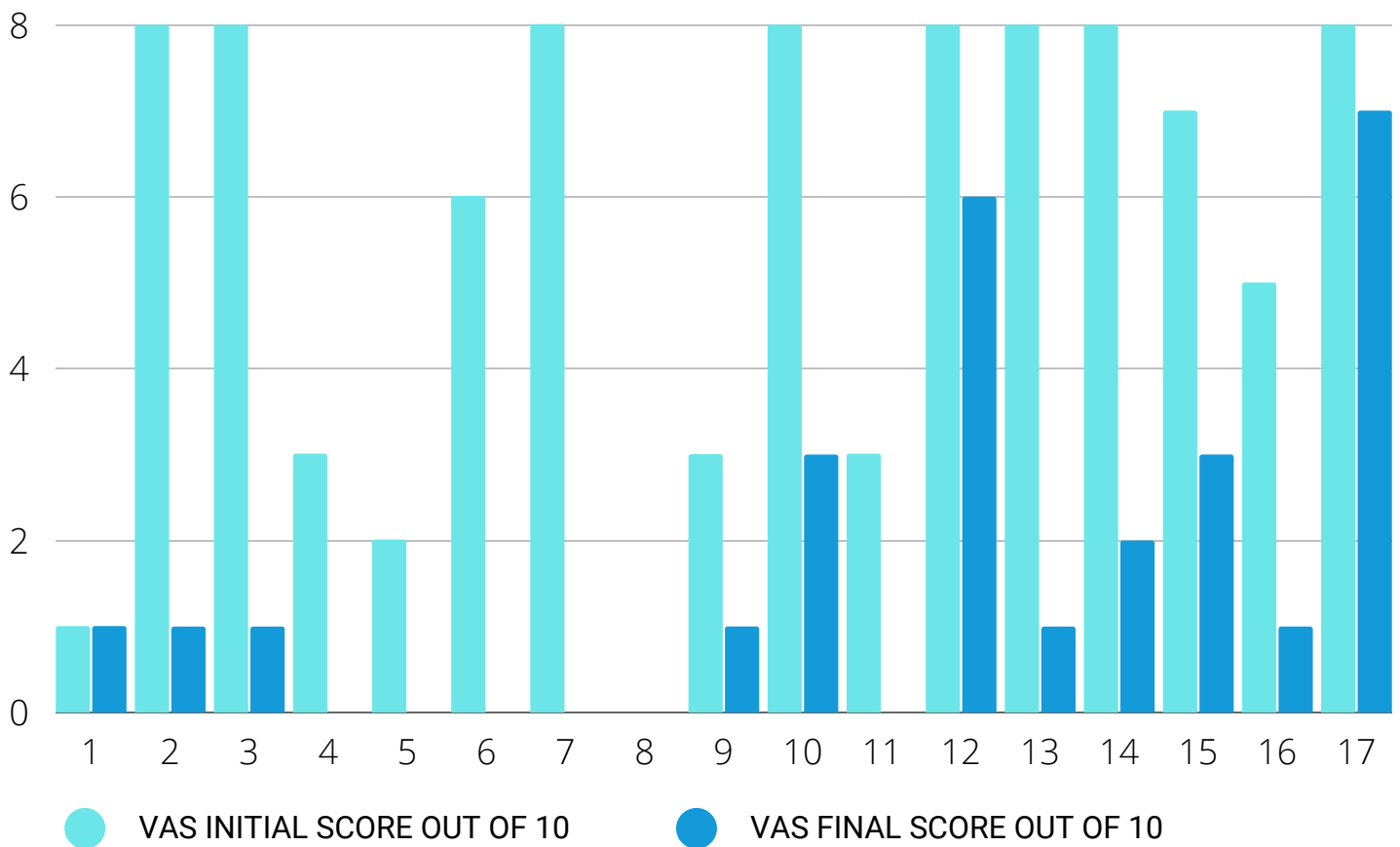
RESULTS

Patient number	Oswestry DI score before treatment	Oswestry DI score post treatment	Change (10% change is clinically significant)	VAS before treatment	VAS after treatment
1	8	16	+8	1	1
2	32	22	-10	8	1
3	66	32	-34	8	1
4	44	12	-32	3	0
5	44	28	-16	2	0
6	18	4	-14	6	0
7	64	40	-24	8	0
8	12	26	+14	0	0
9	16	16	-10	3	1
10	60	34	-26	8	3
11	6	2	-4	3	0
12	68	68	0	8	6
13	20	10	-10	8	1
14	26	8	-18	8	2
15	30	13	-17	7	3
16	26	14	-12	5	1
17	35	34	-1	8	7

DATA ANALYSIS

- Pain score
- Median score before treatment was 6/10 with lower quartile 3/10 and upper quartile 8/10
- Median pain score post treatment was 1/10 with lower quartile 0/10 and upper quartile 2/10
- Standard deviation was ± 2.85 before treatment and ± 2.09 after treatment
- Student t-test (96% CI) $p=0.0000054$ (statistically significant)

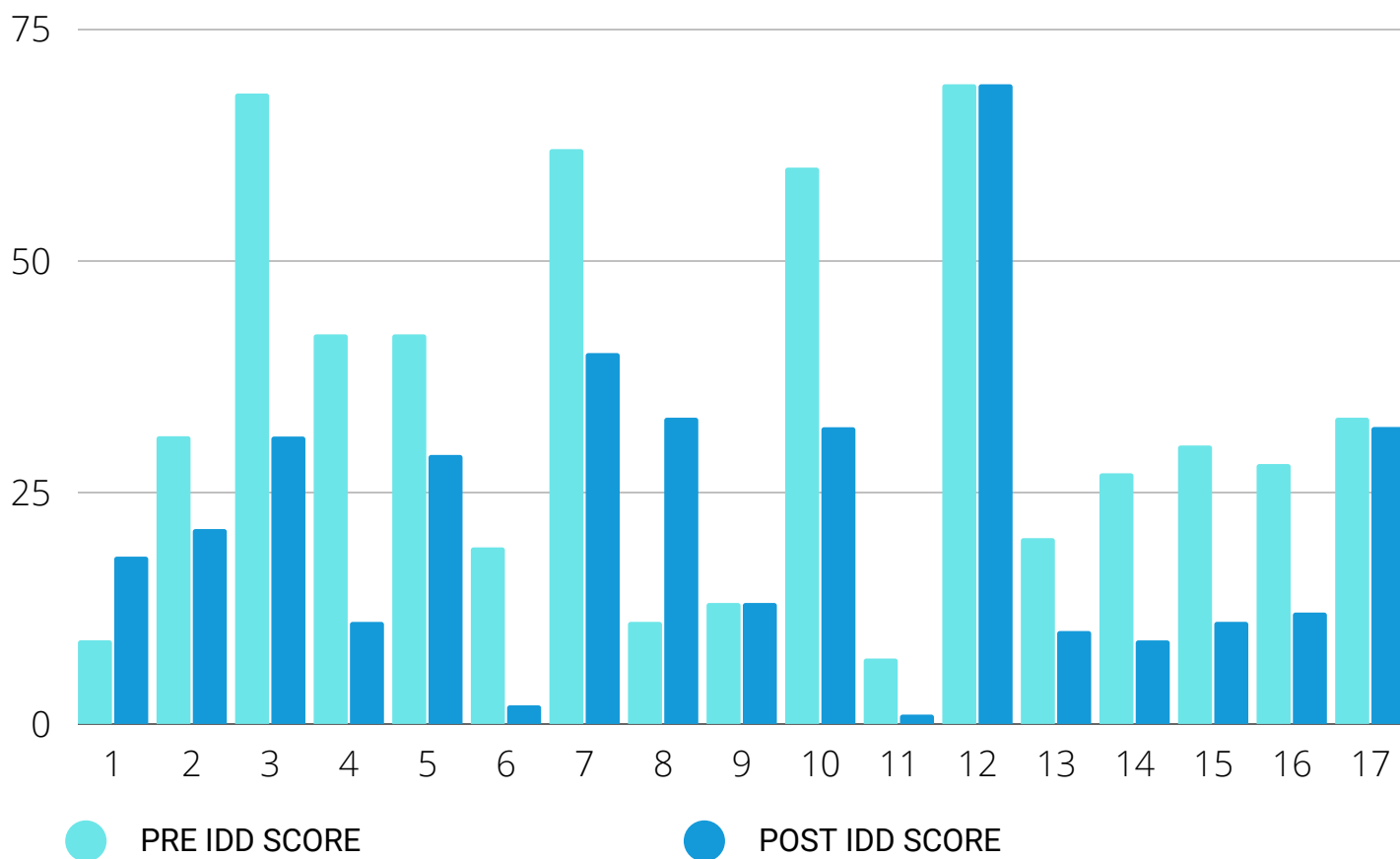
GRAPH TO SHOW INDIVIDUAL PRE AND POST TREATMENT PAIN SCORES



OSWESTRY DISABILITY INDEX SCORES

Number patients with a greater than 10% change	12
Percentage of patients with a clinically significant change	70.59
Patients who completed treatment with clinically significant change	85.71

GRAPH TO SHOW INDIVIDUAL PRE AND POST OSWESTRY DI SCORES



CONCLUSION

IDD Therapy appears to be a clinically effective treatment to lower pain and decrease disability due to low back pain for those patients who failed physiotherapy, osteopathy or chiropractor treatments and steroid and epidural injections.