

POSTER BOARD S32: INTERVERTEBRAL DIFFERENTIAL DYNAMICS (IDD) THERAPY VS. EXERCISE BASED PHYSICAL THERAPY - INITIAL RESULTS FROM A RANDOMIZED CONTROLLED TRIAL

Schaufele, Michael K. MD; Newsome, Michael PT

Background:

Disc degeneration is probably the most common structural cause of chronic low back pain. Multiple nonsurgical treatment options exist, but few of them have undergone vigorous scientific evaluation. Recently, several advanced therapeutic modalities based on the principle of traction have been developed for this indication. These treatments are widely available, but are controversial because of the limited scientific evidence to support their claimed benefits.

Methods:

Patients with chronic low back pain secondary to mild to moderate disc disease were randomized in a 2:1 ratio to IDD (Intervertebral Differential Dynamics) therapy or a standardized program of physical therapy consisting of an exercise based, function oriented physical therapy program (PT). The patients had to complete a minimum of 6 treatments over a 6 wk period in each group. All treatments were performed by the same group of physical therapists. The primary objective of this study was to compare the changes in functional and pain scores (Oswestry, VAS) in both groups and to assess the safety of IDD therapy.

Results:

13 patients in the IDD group and 5 patients in the PT group were available for an interim analysis after completion of 6 wk of treatment. In the IDD group, the mean Oswestry Scores decreased from 27.9-21.8 (-6.1, $P < 0.05$) and the mean VAS scores from 52.3-25.3 (-27, $P < 0.05$). In the PT group, the mean Oswestry scores decreased from 25.2-24.8 (-0.4, n.s.) and the mean VAS scores from 45.3-24.3 (-21, n.s.). No significant side effects or adverse events were noted in either group.

Conclusions:

Patients in both groups experienced a moderate decrease in pain. Patients in the IDD group had a moderate reduction in low back pain related disability. Increased sample size and long-term data collection are necessary to corroborate these results.