Interventional Health, P.A.
Questionnaire on Response to Treatment with CMECD procedure

Summary of Alternative Pain Treatment Assessment

Total returns first mailing of 50 assessment forms: 21
Total returns second mailing of 70 forms: 21
Total returns: 42
Total patients: 93

Number stating no pain relief in first mailing: 2
Number stating no pain relief in second mailing:5
(second mailing specifically requested patients without relief to respond)
Total number of patients with no pain relief: 7
Percent of patients with no pain relief: 16.6%
Number of patients with no pain relief that had subsequent procedures: 3
Number of patients who had back surgery: 2

Number/Percent of patients with significant relief of pain: 35/83.3%
Number/Percent of patients with complete relief of pain: 22/50%
Number/Percent of patients with moderate pain relief: 9/21.4%
Number/Percent of patients with partial pain relief: 4/9.5%

Number/Percent of patients who had prior unsuccessful treatments: 34/85%
Number/Percent of patients with prior back surgery: 5/12%
Number/Percent of patients with prior back surgery with complete durable relief: 2/5%

Duration of pain prior to treatment
Number/Percent of patients with weeks of pain: 1/2.4%
Number/Percent of patients with months of pain: 9/21.4%
Number/Percent of patients with years of pain: 32/76%
Average number of years when specified: 5.85 years
Maximum number of years when specified: 15

Number/Percent of patients receiving various prior treatments:
Surgery: 5/12%
Massage: 26/62%
Epidural: 22/52.4%
Acupuncture: 13/31%
Physical Therapy: 31/74%
Chiropractor: 3/7%
Heat: 2/5%
Yoga: 1/2.4%

Severity of Pain
Number/Percent of patients with mild pain: 1/2.4%
Number/Percent of patients with moderate pain: 14/33%
Number/Percent of patients with severe pain: 27/64.3%

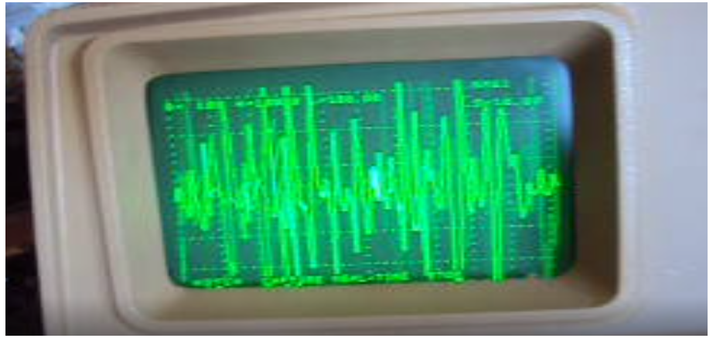
Duration of pain relief for those patients with pain relief
Less than one week: 4
One week to one month: 5
One to three months: 5
One patient had re-injection and has remained stable
One patient had subsequent ablation
One patient required subsequent back surgery
One patient fell and re-injured his neck 6 weeks after injection but that resolved and now is pain free 8 months later.
Over three months: 25
Percent of patients with pain relief that lasted over 3 months: 71.4%
Percent of total patients treated that had pain relief lasting over 3 months: 59.5%

Number of treatments received
Number of patients who received 1 treatment without pain relief: 5
Number of patients who received 2 treatments without pain relief: 2
Both patients had subsequent back surgery
Number of patient who received 1 treatment at 1 site with pain relief: 22
Number of patient who received 1 treatment at 2 sites with pain relief: 1
Number of patient who received 2 treatment at 2 sites with pain relief: 4
Number of patient who received 2 treatment at 3 sites with pain relief: 3
Number of patient who received 3 or more treatments at 3 sites with pain relief: 5

Referral of family or friends for this procedure
Number/Percent of patients with no response: 3/7%
Number/Percent of patients who would not refer: 3/7%
Number/Percent of patients who would possibly refer: 6/14%
Number/Percent of patients who would strongly refer: 16/38%
Number/Percent of patients who have already referred: 15/36%
Number/Percent of patients who would strongly refer or have already referred: 31/74%
Number/Percent of patients who would possibly, strongly or have already referred: 37/88%

Impact on overall health, wellbeing or ability to function
Number/Percent of patients with no response to question: 2/4.8%
Number/Percent of patients with no impact: 11/26%
Number/Percent of patients with minor impact: 6/14%
Number/Percent of patients with major impact: 23/55%
Number/Percent of patients with minor or major impact: 29/69%

Decrease in use of pain medications
Number/Percent of patients with no response: 5/12%
Number/Percent of patients that took no pain meds before: 9/21.4%
Number/Percent of patients that had no change in use of pain meds because of no pain relief: 9/21.4%
Number/Percent of patients that had a mild decrease in use of pain meds: 4/9.5%
Number/Percent of patients that had a moderate decrease in use of pain meds: 5/12%
Number/Percent of patients that no longer needed pain meds: 18/42%
Total number of patients that had a decrease in use of pain meds: 27
Percent of patients that had a decrease in use or no longer needed pain meds: 64.3%



SUCCESSFUL TREATMENT OF LONGSTANDING CHRONIC MUSCLE SPASM WITH EMG GUIDED CHEMODENERVATION

INTRODUCTION: Chronic muscle spasm represents a significant cause for chronic pain. Treatment of chronic pain with opioid medications has led to opioid addiction, and overdose deaths are currently recognized as a national crisis. Treatment modalities are needed to treat truly chronic pain when associated with chronic muscle spasm. Novel treatment modalities utilizing needle EMG-guided chemodenervation have been previously described. Preliminary assessment of the success of such treatments for longstanding chronic muscle spasm can be provided by patient surveys of such treatment. OBJECTIVE: To identify success rates of needle EMG-guided chemodenervation with phenoxybenzamine in patients with pain duration of greater than 1 year.

METHODS: Ninety-three sequential patients treated with this technique were surveyed by mail. Forty-two responded.

RESULTS: Of the respondents, 31 (74%) reported years of pain duration Of those, 50% reported complete relief of pain (81% of which reported relief of pain for greater than 3 months) and 27.4% reported moderate relief of pain (44% of which reported pain relief for greater than 3 months). The average duration of pain when specified was 5 years and the longest was 15 years. A single treated patient, not in this survey, reported near complete pain relief and return of function after 35 years.

SUMMARY/CONCLUSION: Truly longstanding chronic muscle spasm and pain can be successfully treated in a significant portion of patients with stable outcomes utilizing the previously described technique of needle EMG-guided chemodenervation with phenoxybenzamine. In this unselected patient population with longstanding chronic pain, results support further clinical research to establish the utility of this treatment modality.