

Title	APS Validation
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APS VALIDATION

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An APS validation study was conducted over a 3 month period (June 1998 – August 1998). This was done in a GP practice setup which is different from a physiotherapy or chiropractic validation. In most patients no electrotherapy devices have been tried before. The outcome and results therefore are typical what one will expect from a similar GP practice setup. From the results you will notice that the study was mainly a comparison between APS therapy vs Drug therapy.

A total of 174 patients were treated. All the patients were carefully evaluated for any possible contraindications before therapy was started. Apart from 2 superficial burns in 2 different patients, no other complications were encountered. The majority of patients were very happy with the results. Out of the 174 patients 157 had follow up treatments. Because 17 patients only had one treatment and did not return for follow up treatments, it was decided to exclude them from the study.

Out of 157 patients treated, the following observations were made:

72% improved or felt that APS therapy was better than other treatment modalities

28% did not improve or felt that APS therapy was equal to other treatment modalities

50% had immediate relief of pain

20% had immediate improvement of swelling

54% had immediate improvement of stiffness

50% had immediate improvement of mobility

23% had gradual improvement of pain

8% had gradual improvement of swelling

15% had gradual improvement of stiffness

14% had gradual improvement of mobility

Most of the patients were treated every 2nd day and the average amount of treatments were 3-5.
Most of the patients had 8 minute treatments

The following conditions were treated successfully:

Acute and chronic backache
OA of the back
Sciatica
Plantar fasciitis
Tarsal tunnel syndrome
TM joint dysfunction
Bell's Palsy
Post Herpetic neuralgia
Sartorius muscle strain
Rectus Abdominis strain
Post-operative pain
Piriformis muscle syndrome
Reflex Sympathetic Dystrophy
Hip and Shoulder Capsulitis
Supraspinatus
Archilles Tendonitis
Pain from spinal compression fractures
Osteoporosis of the spine
Fibromyalgia
Spinal nerve root irritation and Radiculopathy
OA of the shoulders and knees
Painful knee and hip prosthesis
Subacromial bursitis
Rotator cuff syndromes and shoulder -
impingement
Rotator cuff tears
Latissimus Dorsi Strain
Gluteus medius muscle strain
OA of the neck and cervical spondylosis
SI joint dysfunction
Swelling and pain secondary to a humerus -
fracture
Headaches secondary to Cervical Spondylosis
Carpal Tunnel syndrome
Tennis Elbow
Backache secondary to Spinal Stenosis
Backache from lumbar scoliosis
Backache from congenital malformations in L3 -
L4 L5 area
Collateral ligament injury of the knees
Iliotibial Band Syndrome
Post viral Arthropathy
Coccydynia
Prepatellar Bursitis
Pain from cervical disc protrusion
Pain from lumbar disc protrusion
Intercostal muscle strain
Mechanical Backache secondary to obesity
Post-operation swelling and stiffness of the -
shoulder
Restless leg syndrome
Cervical, thoracic and lumbar muscle spasms
Patella femoral syndrome
Backache from degenerative disc disease and -
fascet joint arthritis
Backache from Scleroderma
Psoriatic Arthritis of feet and back
Post-operative stiffness of the wrist
Thoracic muscle spasm secondary to multiple -
sclerosis

APS VALIDATION

PATIENT #1 : 60 year old Male

Presenting Problem: Chronic lower backache and stiffness, unable to sleep as night for past few years, minimal relief with physiotherapy and massage therapy, also minimal relief with NSAIDS. Previous surgery L-5 S-1 laminectomy, as well as lumber spinal fusion. Myelogram in 1994 showed minimal spinal stenosis at L-3 L-4 level. MRI in 1994 showed minimal disc bulge at the L-3 L-4 level.

Diagnosis: Chronic lower backache following previous lower back surgery.

Treatment: patient received a total of six treatments with the APS devise. He had immediate relief after his first treatment. He also had immediate improvement in his range of motion in the lower back. After the third treatment the patient was able so sleep through the night. The patient was followed up for two weeks after his sixth treatment. He was still pain free and was still able to sleep throughout the night. The patient is a truck driver by occupation.

PATIENT #2 : 57 year old Male

Presenting Complaint: Painful left hip with radiculopathy into the left knee following three days of prolonged sitting due to book work. On examination, decreased internal and external rotation, as well as flexion of the hip. Pain with internal and external rotation.

Diagnosis: Left hip capsulitis.

Treatment: Muscle relaxants and anti-inflammatory drugs with no relief. Received one treatment of APS to the left hip with complete resolvment of his pain and symptoms.

PATIENT #3 : 33 year old Female

Presenting Complaint: Severe lower backache due to ovulation. Usually the backache. Lasts two to three days.

Diagnosis: Backache due to ovulation.

Treatment: Advil and Ponstan with not much relief. One treatment of APS resulted in Complete relief op patients symptoms within twelve hours. Electrode placement L-5 S-1 and suprapubic region, as well as both lateral hips.

PATIENT #4 : 9 year old Boy

Initial Complaint: Injured right hip and right leg in baseball match.

Diagnosis: Right sartorius muscle strain.

Treatment: Ice. Two treatments with APS over the entire muscle led so complete resolvment of his symptoms.

PATIENT #5 : 90 year old Female

Presenting Problem: Severe lower backache.

Diagnosis: Acute L-2 compression fracture and osteoporosis.

Treatment: Electrode placement T-1 to L-5, as well as L-2 to the suprapubic region.

Conclusion: Acute relief of pain in the lower lumbar area, also increased range of motion. She was prescribed a lumbar brace and she informed me that she was well enough to do a thousand kilometre trip the next day.

Total Treatment: One.

PATIENT #6 : 65 year old Male

Presenting Complaint: Severe pain and discomfort in both shoulders as well as the cervical region. Also chronic headaches and history of depression.

Diagnosis: Fibromyalgia and depression. Cervical spondylosis as well as anterior listhesis C-3 and C-4.

Medication and Treatment: Trimipramine 125 mg Hs, massage therapy, physiotherapy. These treatments are of limited value. Patient had been unable to sleep throughout the night for the past few years. Patient was started on APS. His neck, shoulders and back were treated. He had immediate relief of his headaches and he had been able to sleep throughout the night since treatment was initiated. He is usually pain free for two to three days at a time. He responds very well to a treatment to the neck and upper thoracic spine every three to four days. He has received a total of six treatments to date.

PATIENT #7 : 67 year old Male

Presenting Problem: Neck pain with radiation into the left shoulder. Severe cervical Spondylosis as well as intra vertebral disc space narrowing, especially at the level of C-4, C-3.

Diagnosis: C-4 nerve root irritation with radiculopathy into the left shoulder.

Treatment and Medications: Advil. Patient received three treatments of APS. He had immediate relief of his neck pain and the referred pain into his left shoulder improved with each treatment. He was discharged after three treatments. I've noticed that this man's symptoms have been present for four months. Pads were placed on both sides of the neck at the C-3 C-4 level. The C-3 dermatome was also treated with the pad placement on the tip of the left shoulder.

PATIENT #8 : 76 year old Male

Presenting Problem: Severe arthralgia in both knees.

Diagnosis: Severe osteoarthritis in both knees, as well as chondrocalcinosis. Patient on waiting list for bilateral knee replacement.

Treatment: Treatments consisted of nonsteroidal anti-inflammatory drugs. Patient is not getting any relief from this and is not sleeping at night. Patient had immediate pain relief after initial treatment with APS. APS pads were placed on the sides of the knees on the joint lines. The patient is able to sleep throughout the night. He usually gets relief from 48 hours. Patient received a total of four treatments and was advised to return as needed for treatment.

PATIENT #9 : 43 year old Male

Presenting Problem: Long-standing history of severe recurrent lumbar back spasms. Nonsteroidal anti-inflammatory drugs not helping. He usually gets some relief from acupuncture.

Provisional Diagnosis: Lumbar back spasm and mechanical back discomfort secondary to degeneration of lower lumbar spine. X-rays confirm progressive narrowing of L-3 L-4 and L-5 disc spaces.

Treatment: Patient received a total of five treatments with APS. He had absolutely no relief from APS treatment.

PATIENT #10: 51 year old Gentleman

Presenting Problem: Chronic headaches, chronic neck pain with radiation into the right arm. Patient was involved in an MVA in 1995. He sustained a whiplash injury.

Diagnosis: Chronic C-5 radiculopathy which is post traumatic. Also, post traumatic migraine and analgesic induced headaches. Emotional overlay with depression. Cervical CT Myelogram revealed minor extradural indentation at the C-5 C-6 level. No significant nerve root compression is identified to justify surgery.

Current treatment: Anti-depressants and Naproxyn. The effects are of limited value. Treatment also consisted of extensive physiotherapy, massages therapy, and chiropractic treatment, also of limited value. The patient received a total of six APS treatments but there had had been very little relief in his radiculopathy symptoms. He does, however, state that his headaches had been less. Electrode pad placements were on the sides of the neck at the C-5 level as well as from C-5 to the right upper arm.

PATIENT #11 : 67 year old Male

Presenting Problem: Painful right shoulder after fall on shoulder two months ago.

Diagnosis: Subacromial bursitis and possible small rotator cuff tear.

Treatment: NSAIDS, with not any relief. Patient received four APS treatments without any relief of his shoulder pain. Patient will be referred to an orthopaedic surgeon to assess him for possible rotator cuff tear. If an arthogram fails to show a rotator cuff tear this patient might respond on a Cortisone injection into the subacromial bursa.

PATIENT #12 : 40 year old Male

Presenting Problem: Slipped on ice in January of 1998, and since that time pain in the left lower lumbar region and left buttock area. Examination failed to show any evidence of neurological deficit or nerve root entrapment.

Diagnosis: Chronic latissimus dorsi and gluteus medius muscle strain.

Treatment: Nonsteroidal anti-inflammatory drugs with limited relief. Patient received six APS treatments. He had gradual improvement of his symptoms to the point where he could sleep throughout the night. Best results were achieved with electrode pad placement over the L-5 area through to the umbilicus area.

PATIENT #13 : 71 year old Female

Presenting Problem: Chronic pain in the cervical region as well as right trapezius area. X-rays revealed cervical spine spondylosis with moderate prominent syndesmophytes suggesting diffused idiopathic skeletal hyperostosis .

Diagnosis: Cervical spondylosis with C-3 nerve root irritation and radiculopathy into the right shoulder area.

Treatment Modalities: Acupuncture, NSAIDS, no relief. Patient was started on APS. Patient received a total of four treatments. The patient had gradual relief of pain and improvement after the fourth treatment. Electrode pad placements were from C-3 into the right C-3 dermatome.

PATIENT #14 : 44 year old Female

Presenting Problem: Chronic left lower backache since March after lifting a heavy roast out of the oven. She works as a cook.

Diagnosis: Left SI joint dysfunction.

Treatment: Patient was treated with analgesics, NSAIDS, chiropractic treatment, as well as extensive physiotherapy. She made a very slow recovery with minimal improvement. She was started on APS treatment. She had immediate relief after the first treatment. She received a total of three treatments. Electrode placements were over the left SI joint to the left inguinal region.

PATIENT #15 : 79 year old Female

Presenting Complaint: Painful right knee of a few weeks duration. No apparent injury. On examination tender over the medial joint line, as well as the pes anserinus bursa. X-rays only showed minimal size of osteoarthritis.

Diagnosis: Pes anserinus bursitis versus a medial meniscus lesion.

Treatment: NSAIDS, not much relief. APS: No relief with the first two treatments. She had good relief with the third treatment. Patient was pain free for three days with relapse of symptoms after three days. The fourth and fifth treatment did not give the same relief.

Conclusion: She might have a bursitis that's not responding on APS treatment. She will be referred to an orthopedic surgeon to exclude a medial meniscus lesion.

PATIENT #16 : 65 year old Female

Presenting Problem: Chronic headaches, chronic painful neck, and chronic upper thoracic backache following a whiplash injury sustained in a motor vehicle accident in 1994. X-rays of the cervical spine are normal apart from an area of calcification posterior to the C-7 spinous process which could be indicative of previous ligamentous injury. Patient had extensive physiotherapy, massage therapy. She was seen by an orthopaedic surgeon and she had extensive rehabilitation at a tertiary centre.

Diagnosis: Chronic headaches, chronic painful neck with decreased range of motion, as well as chronic thoracic backache.

Treatment: The patient received a total of seven APS treatments. She had some improvement in the range of motion after the third treatment, but she had a relapse shortly after this. After seven treatments I came to the conclusion that she had some improvement in the range motion of her neck but no real relief in her headaches and cervical thoracic pain. Of note that this lady had been tried on various non-steroidal anti inflammatory drugs as well as anti-depressants. None of these treatments modalities worked for her. There is, however, a big component of emotional overlay.

PATIENT #17 : 65 year old Male

Presenting Problem: Bilateral carpal tunnel syndrome symptoms confirmed with conduction studies. The patient is currently waiting for surgery.

Diagnosis: Bilateral carpal tunnel syndrome.

Treatment: Patient received a total of three treatments with the APS device. He had immediate improvement in his symptoms after the first treatment. There was a remarkable reduction in the swelling of his hands and wrists. Patient will be followed up as needed for pain relief and symptomatic relief.

PATIENT #18 : 44 year old Male

Presenting Problem: Sustained acute lower lumbar back injury after heavy lifting in May, 1998. Patient had previous laminectomies at L-4 and L-5.

Diagnosis: Acute lumbar back injury as L-3 L-4 level with nerve root irritation into the left leg. Previous lumbar back surgery.

Treatment; Patient was started on physiotherapy. After two weeks of physiotherapy he still had severe spasm and tenderness in the L-3 L-4 area. He had some improvement in his nerve root irritation symptoms. The patient also had treatment with analgesics and nonsteroidal anti-inflammatory drugs, as well as muscle relaxants. APS treatment was initiated three weeks after his injury. The patient had no relief after two treatments. Treatments were mainly aimed the lower back. The third treatment was with one pad placement over the L-3 area and another pad placement over the L-3 dermatome, as well as the left groin area. Patient had remarkable improvement after the third treatment session and he was discharged to come back as needed after the fourth treatment.

PATIENT #19 : 42 year old Female

Presenting Problem: Right rectus abdominis muscle injury following a hysterectomy in February 1998. She also has associated right lower quadrant pain with radiation into the right thigh. She also has significant dyspareunia on the right side. She had severe tenderness over the right lower quadrant with palpation.

Diagnosis: Chronic right abdominal pain following hysterectomy, most likely secondary to superficial nerve entrapment or chronic abdominal muscle injury.

Treatment: Patient had received a total of eight treatments so far. Electrode placements were over the whole length of the rectus abdominis muscle as well as the T-12 dermatome. Her recovery with APS treatment had been very slow, but subjectively she feels that there is progressive improvement with each treatment. There was a marginal decrease in the swelling on the right side.

PATIENT #20 : 63 year old Female

Presenting Problem: Chronic lower backache, unable to sleep at night, very poor response to appropriate analgesics and muscle relaxants. The patient cannot tolerate nonsteroidal anti-inflammatory drugs. X-rays of the lumbar sacral spine shows evidence of early spinal stenosis. The patient has symptoms of pain radiating into both legs, as well as associated paresthesia.

Diagnosis: chronic low backache with radiation into both legs, secondary to early spinal stenosis. Patient is waiting to see a neurosurgeon for possible back surgery.

Treatment: Patient was initiated on APS treatment concentrating on pad placements on the spine as well as L-3 or 4 dermatomes. So far patient has had six treatments. She has had progressive improvement in her symptoms and is able to sleep throughout the night. She will continue to come for treatment every three to four days.

PATIENT #21 : 38 year old Male

Presenting Problem: Eight month history of lower backache with paresthesia into both legs. X-rays showed multi level spondylosis with degenerative disc narrowing at L-4 L-5 and L-5 L-6. Neurological examination is essentially normal.

Treatment: Patient received a total of two APS treatments. He had immediate relief in his lower backache. He was discharged after the second treatment and will come back as needed. Patient tried NSAIDS before without any significant success.

PATIENT #22 : 77 year old Female

Presenting Problem: chronic right shoulder pain. X-rays confirmed advanced osteoarthritis of the right shoulder. Patient was advised to have a total shoulder replacement.

Diagnosis: Advanced osteoarthritis of the right shoulder.

Treatment: Patient received two shots of Cortisone, as well as physiotherapy. None of this caused any significant relief in her symptoms. Patient received a total of two APS treatments. She had immediate relief of pain after each treatment, as well as increased range of motion of the right shoulder. She will be followed up as needed for symptomatic relief.

PATIENT #23 : 35 year old Female

Presenting Problem: Chronic left knee and weakness in the quadriceps tendon after left knee quadriceps tendon reconstruction. Evidence of severe quadriceps atrophy due to lack of usage of the quadriceps muscle. She had evidence of quadriceps tendonitis as well as prepatellar bursitis. This lady had been followed up for orthopaedic surgeon extensively. She had received extensive physiotherapy and she is currently using a knee brace to stabilize her leg.

Diagnosis: Prepatellar bursitis, quadriceps tendinitis with secondary quadriceps atrophy.

Treatment: This lady has received a total of eight APS treatments so far. There has been minimal relief in her pain symptoms but there has been remarkable improvement every second day. She was encouraged to start with quadriceps strengthening exercises.

PATIENT #24 : 62 year old Female

Presenting Problem: chronic lower backache.

Diagnosis: Chronic lower backache from of lumbar scoliosis, congenital malformations in the L-3, L-4 and L-5 area and osteoporosis.

Treatment: Narcotic analgesics and Fosamax. APS treatment was mainly aimed at treating the spine. She had immediate relief from pain. She usually gets three to four days of good pain relief and improved range of motion from one treatment.

PATIENT #25 : 41 year old Male

Presenting Problem: This patient fell off roof in February, 1998 injuring his neck and lower back. He sustained compression fractures to C-7, as well as transverse process fractures on the right side of L-3 L-4 and L-5. He's in chronic pain and was getting very little relief from nonsteroidal anti-inflammatory drugs, analgesics and physiotherapy. He currently still complains of severe pain in back with pain radiating into the right gluteal area. He has specific tenderness in the right gluteal area.

Diagnosis: Lower back injury with radiculopathy into the right leg.

Treatment: He received a total of six APS treatments mainly concentrating on the lower back and the right sciatic. He had good relief of pain after his third treatment. His pain returns after two to three days. He is scheduled to have a CT scan and myelogram to exclude any disc herniation. He will also have anEMG study so exclude peripheral compression on the sciatic nerve through the area of transverse process fractures.

Conclusion: This gentleman is getting relief from APS therapy but he has ongoing discomfort in his right lumbar and gluteal area. Diagnosis not established yet.

PATIENT #26 : 41 year old Male

Presenting Problem: Rotational valgus type injury to the left knee two months ago. No relief with nonsteroidal anti-inflammatories and pain killers.

Diagnosis: Medial collateral ligament injury as well as suspected medial meniscus injury of the left knee.

Treatment: Patient had immediate relief after one treatment with APS. The pads were placed over the joint lines on both sides. He was discharged to come back as needed after his second treatment. He will probably require arthroscopy if he has any recurrent medial meniscus symptoms.

PATIENT #27 : 53 year old Male

Presenting Problem: This gentleman injured his back at work in February, 1997. He had extensive physiotherapy without any apparent relief. He eventually had a CT scan, myelography, which demonstrated a disc protrusion. He ended up with a laminectomy and discectomy and L-5 S-1 fusion. He continued to suffer pain and numbness ever since. He had been wearing a back brace continuously. He even had EMG studies postoperatively which did not show any abnormalities.

Medications: Tegretol 100mg bid, narcotic analgesics. He developed additional right upper thoracic backache in the region of T-5 & 6 with radiation over to the right anterior torso.

Diagnosis: Chronic postfusion backache, instability and infection in the fusion area to be excluded.

Treatment: This gentleman had a total of six APS treatments. He had it every second day. He responded favourable on the thoracic backache with minimal relief from lower backache. He now has evidence of chronic pain syndrome and he will be sent to a multi-disciplinary chronic pain program and functional rehabilitation program.

PATIENT #28 : 59 year old Female:

Presenting Problem: Pain over the lateral aspect of the knee, as well as right lower backache with radiation into the right buttock.

Diagnosis: right iliotibial band syndrome and right piriformis muscle syndrome.

Treatment: Nonsteroidal anti-inflammatory drugs, analgesics with poor response. This lady received APS treatments along the right iliotibial tract, as well as in the S-1 dermatome distribution. She had a gradual improvement in her symptoms. She was treated every second day. She had a total of three treatments and was asked to return as needed. She improved enough to cancel her fourth treatment

PATIENT #29 : 69 year old Female

Presenting Problem: Arthralgia and lower backache, as well as coccyx pain following a viral illness four months ago.

Diagnosis: Post viral arthropathy affecting the lower back and right elbow, symptoms of coccydynia.

Treatment: This lady had a total of eight APS treatments which concentrated on the lower back and the right elbow. The coccyx pain was treated with placement of the pads over the sacrum and the suprapubic area. She had immediate relief of pain following the first treatment. She had treatments every second day and she was pain free after eight treatments. Pad placements for the elbow were over the medial and lateral side of the elbow. She was discharged after eight treatments.

PATIENT #30 : 74 year old Male

Presenting Problem: Patient is known with systemic vasculitis and he presented in my office with polyarthralgia mainly involving the lower back and the knee.

Treatment: His treatment for his vasculitis is Methylprednisolone 1.5 gms every two weeks, Cyclophosphamide 750 mg IV every two weeks. Imuran 50 mg once a day, Tylenol 3 as needed. MS Contin 30 mg bid. Patient had four sessions of APS treatments mainly concentrating on the lower back and the knees. He did not respond on APS treatment. This gentleman will do better on immune suppression of his systemic vasculitis.

PATIENT #31 : 52 year old Female

Presenting Problem: Ten year history of lower back pain. She injured her back in September, 1997 and she now has significant discomfort down into the left leg which makes it difficult for her to sleep as night. X-rays showed degenerative changes in the lower lumbar spine. Straight leg raising is positive on the left side. She does not have significant nerve root irritation.

Diagnosis: Lower lumbar degeneration with sciatica symptoms into the left leg.

Treatment: Anti-inflammatory drugs, as well as narcotic analgesics on occasion. Temporary relief. This lady had two APS treatment with almost immediate long lasting relief from her symptoms. She was advised to come back as needed for further treatment. Pad placement were the same as for that of lower backache and sciatica.

PATIENT #32 : 76 year old Female

Presenting Problem: Severe aarthralgia and night pain in the right knee.

Diagnosis: Severe osteoarthritis of the right knee. This lady is waiting for a knee replacement.

Treatment: Diclofenac 50 mg bid. This lady had three treatments with APS. This lady had immediate pain relief after the first treatment. She also had remarkable improvement in her mobility. She gets long lasting relief for up to three to four days with a single treatment. She was advised so come back as needed for further treatment.

PATIENT #33 : 32 year old Female

Presenting Problem: This lady works as a nurses aid. She injured herself in June, 1997 after lifting a patient. Her symptoms were mainly that of upper thoracic backache as well as neck pain and headaches. Clinically she had spasm and tenderness of upper thoracic muscle as well as the cervical muscle.

Diagnosis: Posterior vertebral joint injury, as well as mild C-1 C-2 dysfunction, biomechanical restrictions of the cervical thoracic spine.

Treatment: This lady had extensive chiropractic treatment, as well as physiotherapy. Her response to treatment had been extremely slow. She had several episodes of improvement just to relapse again after returning back to work. She was started on Amitriptyline, muscle relaxants, and Ibuprofen. This lady also has a big component of emotional overlay. Most of her muscle spasm and tenderness is situated in the trapezius region on both sides, therefore APS treatments were concentrated in the C-7 area. Pad placements were on both trapezius areas at the level of C-7. This lady had a total of six treatments. She had improvement after each treatment. She claims that APS is the only treatment that gives her long lasting effect. She will come back for further treatment as needed. She gets up to three to four days relief at a time.

PATIENT #34 :84 year old Male

Presenting Problem: Long history of intermittent pain in the lower lumbar spine radiating down into both buttocks. He has a long history of arthritis of his left hip. He also has some discomfort in his right hip. Clinically he doesn't have significant findings suggesting nerve element compression. X-rays of his left hip show advanced osteoarthritis in the left hip. Clinical examination revealed that despite degenerative changes in his lumbar spine and evidence of advanced osteoarthritis in the left hip he mainly has signs of trigger point tenderness on both gluteal medius muscles.

Diagnosis: Gluteus medius muscle tenderness.

Treatment: Patient was treated conservatively with nonsteroidal anti-inflammatories as well as analgesics. He had four treatments of APS over a period of ten days. There has been no significant improvement. He responded favourable to Cortisone injections into the tender areas in each gluteal region.

PATIENT #35 : 54 year old Female

Presenting Problem: Painful right knee for a month after doing a lot of kneeling with gardening. Clinically she had swelling over the anterior right knee.

Diagnosis: Right prepatellar bursitis.

Treatment: This lady had three treatments with APS. There had been significant improvement in the swelling and stiffness of the knee. She had pain relief after the second treatment. Pad placements were over the joint lines of the knee. She was advised to continue with Ibuprofen and to see me for for a follow-up as needed.

PATIENT #36 : 78 year old Female

Presenting Problem: Chronic discomfort in both shoulders, lower backache and pain radiating into the right hip and right leg. X-rays revealed advanced spondylosis in the lumbar spine with degenerative changes. She has L-3 L-4 disc degeneration. She also has Grade II L-5 S-1 antero listhesis. X-rays of the shoulders show advanced osteoarthritis.

Diagnosis: Osteoarthritis of both shoulders with impingement symptoms, advanced osteoarthritis and degenerative disc disease of the lumbar spine.

Treatment: Because this lady developed nonsteroidal anti-inflammatory drug induced gastritis she is not a candidate for nonsteroidal anti-inflammatories. She was given narcotic analgesics which only gave temporary relief. She was started on APS treatments. She received treatments to both shoulders and lower back, as well as left buttock every second day. She had treatments over a period of ten days. She had remarkable relief in her lower back and right hip symptoms. She's getting good pain relief in both shoulders. Her impingement symptoms are less after each treatment and her range of motion in both shoulders are improving after each treatment.

PATIENT #37 : 51 year old Male

Presenting Problem: painful right shoulder of gradual onset over the past two months.

Diagnosis: Right shoulder impingement.

Treatment: Patient was initially treated with nonsteroidal anti-inflammatories without any significant relief. He received a total of three APS treatments. He had immediate pain relief after his first treatment. His range of motion improved after each treatment. Pad placements were over the right supraspinatus muscle and right anterior lower deltoid. She will continue to come back for APS treatment as needed.

PATIENT #38 : 77 year old Male

Presenting Problem: Chronic pain and limited abduction of the right shoulder. X-rays and clinical examination shows a large right rotator cuff tear. This patient is booked for an arthroscopic evaluation and open rotator cuff repair. The patient claims that he had not been able to sleep on his right shoulder for years.

Diagnosis: Right rotator cuff tear.

Treatment: APS treatment was initiated recently. He had pain relief after his third treatment. He will come back for more treatment as needed until he has his surgery.

PATIENT #39 : 39 year old Female

Presenting Problem: Painful left elbow and left wrist of one month duration.

Diagnosis: Left tennis elbow and De Quervains tenosynovitis.

Treatment: The patient used nonsteroidal anti-inflammatories for about a month. She also received physiotherapy with no relief of pain. He had five treatments of APS. Her tennis elbow symptoms improved but she had no relief of the De Quervains tenosynovitis. She eventually responded to Cortisone injections.

PATIENT #40 : 70 year old Male

Presenting Problem: Severe pain in his right shoulder and down the right arm. X-rays of the neck revealed degenerative changes of cervical spine as well as disc space narrowing of C-4, C-5 and C-6.

Diagnosis: C-5 C-6 disc protrusion.

Treatment: Non steroidal anti-inflammatories. Patient received APS treatment over a period of three weeks. He had treatment every second day. Initially he had no response with pain in the right shoulder and the right arm persisting. He was unable to sleep on his right shoulder. He had night pain as well. He started responding favourably after two weeks. After a few weeks of treatment he became pain free and he has full range of motion in his neck and right shoulder. He was discharged from the treatment program.

PATIENT #41 : 74 year old Female

Presenting Problem: Post herpetic neuralgia in the right T-6 dermatome. This lady has been tried on Opiate analgesics, Tegretol and Tricyclics antidepressants.

Diagnosis: Post herpetic neuralgia of the right thoracic area.

Treatment: She was tried on APS. She is getting some pain relief for up to 24 hours. APS treatment will be continued on this lady.

PATIENT #42 : 65 year old Male

Presenting Problem: Pain in both wrists as well as paresthesia in both hands for the past two months. Tinel sign is positive on both sides.

Diagnosis: Bilateral carpal tunnel syndrome.

Treatment: Patient had immediate response on APS treatment. There was significant reduction in the swelling. Pad placements was on the anterior and posterior aspects on the wrist.

PATIENT #43 : 76 year old Male

Presenting Problem: Previous left hip replacement ten years ago. Now presenting with recurrent pain in his left hip for the past six months. Patient will be reassessed by an orthopaedic surgeon for possible revision of the left hip prosthesis.

Diagnosis: Painful left hip due to a worn out prosthesis.

Treatment: Patient was started on APS treatment. He had immediate relief after the first treatment. After his third treatment he only had minimal pain. He will be followed up as needed. It's most likely that his hip revision will be postponed for the time being. Pad placements were over the anterior and posterior hip.

PATIENT #44 : 28 year old Female

Presenting problem: She fell off her horse about a month ago and has had continuous pain in the mid thoracic area over the past month. X-rays of the thoracic and lumbar spine don't reveal any abnormalities. On examination she has moderate muscle spasm and tenderness in the mid thoracic area.

Diagnosis: Contusion of muscles in the mid thoracic area.

Treatment: The patient received a total of three APS treatments. Pad placements were on the lateral sides of the mid thoracic area. Patient had very good response after each treatment. She had relief for about two days and the muscle spasm and discomfort gradually improved after each treatment.

PATIENT #45 : 82 year old Male

Presenting Problem: Severe osteoarthritis of the cervical spine causing headaches, neck stiffness and neck pain. Patient uses nonsteroidal anti-inflammatory drugs without any significant relief.

Diagnosis: Osteoarthritis of the cervical spine.

Treatment: Patient was initiated on APS treatment. Electrodes were placed on both sides of the neck at the level of C-5 and C-6. Patient had immediate relief of pain. He also had immediate increased range of motion of his neck. He states that his range of motion is improved for at least two days at a time. He will continue to have treatments every second day as needed.

PATIENT #46 : 34 year old Female

Presenting Problem: This is a morbidly obese patient of about 300 lbs. with chronic lower mechanical backache secondary to lordosis of the lumbar spine secondary to her obesity. This lady is on Prozac, Amitriptyline, nonsteroidal anti-inflammatories and treatment for hypertension. She cannot sit or stand for longer than one hour. Her low backache is also associated with pain into both S1 joints, both buttocks and radiation into both legs.

Diagnosis: Chronic lower mechanical backache secondary to morbid obesity.

Treatment: As stated before this lady uses muscle relaxants, nonsteroidal anti-inflammatories and analgesics extensively to ease her chronic backache. She had been tried on acupuncture before with some good relief for a day or two. She needs acupuncture at least twice a week to ease her lower backache. She has been encouraged to lose weight but has not been very successful. APS treatment have been initiated on this lady. APS had been aimed at the entire spine, as well as the lower back from L-2 to both posterior thighs. APS increases this ladies range of motion and takes the pain away for a day or two. This lady was encouraged to lose as much weight as possible. Her mechanical backache and pain will persist as long as she's overweight.

PATIENT #47 : 36 year old Female

Presenting Problem: Decreased range of motion of the right shoulder and chronic discomfort in the right axilla after a fibroma was excised from the right axilla area. Due to swelling and stiffness this lady started developing frozen shoulder symptoms.

Provisional Diagnosis: Post operative swelling and stiffness of the right shoulder area.

Treatment: Treatment of APS was in the shoulder area, as well as the surrounding axilla area. Although this lady did not have immediate pain relief after the first two treatments, she noticed a moderate decrease in the amount of swelling in the right shoulder and axilla area to the point where she can move her arm more freely now. With increased range or motion this lady will most likely make a speedy recovery.

PATIENT #48 : 80 year old Female

Presenting Problem: Chronic lower backache and stiffness. This 81 year old lady has a long history of osteoporosis and chronic post operative lumbar backache. She had a spinal decompression done in June, 1996 for spinal stenosis. She did well initially but due to her very osteopenic skeleton she started developing similar recurrence of her symptoms.

Diagnosis: Osteoporosis of the spine and chronic post operative backache.

Treatment: This lady is extremely sensitive to nonsteroidal anti-inflammatory drugs and analgesics. She was initiated on APS treatment with pad placements over the entire spine as well as from L-2 to both posterior thighs. This patient states that she has increased range and mobility for two days at a time.

PATIENT #49 : 60 year old Female

Presenting Problem: Right lower backache with pain radiating into the right buttock and into the right knee. This lady had back surgery in 1989 for herniated L-5 S-1. Examination of the hip is normal Straight leg-raising is normal.

Diagnosis: Right lumbar backache with radiculopathy into the right knee.

Treatment: This lady had been on nonsteroidal anti-inflammatories for a long time. She only gets temporary relief. She had a total of eleven treatments with APS. She had some relief of her symptoms immediately and improved with each follow-up treatment. After eleven treatments she was able to go through the day without using any medications. Electrode placements were done from L-2 down to the thigh and down to the lateral malleolus. She was treated at physiotherapy with interferential and Tens devices. She felt that the APS gave her quicker and better pain relief than the other devices. APS also gave her long lasting pain relief. She found the electrode comfort much better than the other treatment modalities.

PATIENT #50 : 52 year old Male

Presenting Problem: Numbness and pain in both wrists and hands.

Diagnosis: Bilateral Carpal Tunnel Syndrome.

Treatment: This gentleman did not have any another treatment and he was started on APS with significant relief in swelling and numbness after the first treatment already. He had a total of four treatments and will come back as needed for further treatment.

PATIENT #51: 47 year old Female

Presenting Problem: Right and lower lumbar backache with radiculopathy into the right leg and right knee, as well as right buttock. She injured herself at work. Initially she was treated with physiotherapy which consisted of treatment with Tens devices, ice and interferential. She was also treated with nonsteroidal anti-inflammatories and muscle relaxants.

Diagnosis: Right lumbar strain with radiculopathy into the right leg.

Treatment: This lady was started with APS treatment while she was having physiotherapy. She had a total of eleven treatments. She found that the only treatment that was giving her significant relief of pain and stiffness was that of APS.

PATIENT #52 : 79 year old Female

Presenting Problem: Painful and restless legs. This lady was thoroughly investigated, conduction studies failed to reveal any abnormalities. She's a diabetic on diet. She doesn't have any signs of peripheral neuropathy. She was tried on Clonazepam without any relief.

Diagnosis: Restless leg syndrome.

Treatment: This lady had a total of eight treatments with APS. APS treatment did not take all the symptoms away but she was able to sleep through the night. She found the APS treatments to be beneficial. She did not have any other neuro stimulator therapy for comparative studies.

PATIENT #53 : 71 year old Female

Presenting Problem: Chronic right temporal headache. This lady was thoroughly investigated for her headaches. No obvious cause could be found. She was started on nonsteroidal anti-inflammatories as well as Amitriptyline. She did, however, have some tenderness over the right TM joint.

Diagnosis: Right TM joint dysfunction causing right temporal headaches.

Treatment: This lady was started on APS treatments. She had immediate relief of her right sided headache which confirmed the diagnosis of right TM joint arthralgia. She had a total of three treatments with significant improvement in her symptoms. She found APS much more effective than Amitriptyline and nonsteroidal anti-inflammatory drugs.

PATIENT #54 : 65 year old Male

Presenting Problem: Known with hypertension. Complaining of a long standing history of pain in his right neck, especially when he's driving. X-rays of his cervical spine only showed minor spondylotic changes in the lower cervical spine. Analgesics did not give much relief.

Diagnosis: Right cervical spondylosis.

Treatment: Patient had a total of three treatments with APS. He found APS much better than analgesics. He had immediate relief of pain each time. He also had long lasting pain relief for up to 48 hours. He was treated every second day for one week with almost complete resolution of his symptoms.

PATIENT #55 : 46 year old Male

Presenting Problem: Chronic pain in both wrists with associate numbness in both hands. This gentleman had extensive damage to both wrists following a motor bike accident the 1970's. He had surgery for bilateral carpal tunnel syndrome three years ago. He now has symptoms suggesting of carpal tunnel syndrome. This was confirmed with conduction studies.

Diagnosis: Bilateral carpal tunnel syndrome.

Treatment: Patient was tried on ultrasound treatment. Tens treatment, interferential and nonsteroidal anti-inflammatory drugs. He had a total of six treatments with APS. Although there was not much difference in the pain relief, it was noticeable that there was reduction in the swelling and inflammation of his wrists and hands. He has improvement of swelling for at least 48 hours. He was treated every second day. This gentleman will be seen by one of the orthopaedic surgeons against for repeat surgery.

PATIENT #56 : 71 year old Male

Presenting Problem: Chronic lower backache. X-rays of his lumbar sacral spine shows extensive facet joint arthritis and degeneration at the L-3 L-4 level.

Treatment: This gentleman had physiotherapy as well as nonsteroidal anti-inflammatory drugs. He had a total of three APS treatments. He did get relief from physiotherapy and nonsteroidal anti-inflammatory drugs, but he found that the pain relief and reduction in stiffness was more significant with APS treatment.

PATIENT #57 : 24 year old Female

Presenting Problem: She developed pain and tingling in the right hand two years ago which was felt to be carpal tunnel syndrome. She was placed on 30 mg of Prednisone daily for about three months. This gave her some relief. Conduction studies did not show any abnormalities. Joint examination disclosed no abnormalities. There is a colour difference in the right arm compared to the left. There is also a slight coolness in temperature in the right arm.

Diagnosis: Reflex sympathetic dystrophy.

Treatment: This lady received treatment consisting of Cortisone and Amitriptyline without any significant improvement. She was started on APS treatment. Because of her pain in her right shoulder, right elbow and right hand, she was started on APS treatments consisting of treatment to the neck, right shoulder and right elbow. The response to treatment has been slow, but she feels that there is improvement and that treatment with APS is more beneficial than Pharmacotherapy. She will continue with treatment as needed.

PATIENT #58 : 78 year old Female

Presenting Problem: Perianal and vaginal spasm for years following a vaginal hysterectomy. This lady was extensively investigated at the Mayo Clinic. She had various treatments consisting of physiotherapy, acupuncture, muscle relaxants with no relief.

Provisional Diagnosis: Vaginal and perianal muscle spasms following vaginal hysterectomy.

Treatment: This lady was given a trial of three APS treatments with no significant improvement in her symptoms. Therefore APS was stopped.

PATIENT #59 : 65 year old Female

Presenting Problem: Severe arthralgia of her left knee. This lady was morbid obesity. X-rays of her left knee showed extensive osteoarthritis. She has been on nonsteroidal anti-inflammatory drugs for a long time. She only gets temporary relief.

Diagnosis: Osteoarthritis of the left knee.

Treatment: Apart from nonsteroidal anti-inflammatory drugs this lady did not have any other treatment. She is scheduled to see the orthopaedic surgeon for possible debridement of her knee. Because of her morbid obesity she is not a good candidate for a knee replacement. She was tried on APS treatment. She had a total of six treatments. She finds that this treatment is working better than nonsteroidal anti-inflammatory drugs. She claims that she can sleep at night. Her range of motion and mobility has also improved remarkably.

PATIENT #60 : 36 year old Male

Presenting Problem: Severe recurrent lumbar muscle spasms following lumbar back surgery three years ago. He has about 75 severe lumbar muscle spasms per hour. He gets it so severe that he cannot do any work and he cannot ever drive a car. He was extensively evaluated by neurosurgeons and neurologists. He has been tried on various treatment modalities including physiotherapy, chiropractic treatment, Tens devices, analgesics and muscle relaxants. None of the above named treatments gave him any relief.

Diagnosis: Lumbar muscle spasms following lumbar back surgery.

Treatment: This gentleman had three APS treatments. After his first treatment he already noticed decreased frequency of his back spasms. After his second treatment two days later he only counted 25 muscle spasms in two weeks. The third treatment led to almost complete disappearance of these muscle spasms. He found APS treatment to be a miracle and he is willing to give a testimonial any time. He will come back for APS treatment as needed.

PATIENT #61 : 35 year old Female

Presenting Problem: Migraine headaches secondary to upper thoracic and cervical muscle spasm.

Diagnosis: Migraine, cervical and thoracic muscle spasm.

Treatment: Patient received six treatments of APS. Her migraines disappeared and her muscle spasms gradually improved. She was advised to come back as needed after the sixth treatment.

PATIENT #62 : 66 year old Male

Presenting Problem: Chronic lower backache with radiculopathy into the right buttock and the right thigh. X-rays of the lumbar spine demonstrate some signs of degeneration of L-5/S-1 level with L-5 laminectomy, as well as decreased lumbar lordosis. This gentleman had L-5 laminectomy done in 1973.

Diagnosis: Lumbar backache with radiculopathy into the right leg.

Treatment: This gentleman had been tried on physiotherapy, non-steroidal anti-inflammatory drugs, pain killers, tens machines, and muscle relaxants. He did not get any long lasting relief. Orthopaedic evaluation did not demonstrate any new disc prolapse or herniation. He had a total of ten APS treatments. He stated getting improvement after the fourth treatment. He has been pain free and symptom free after the tenth treatment and will come back as needed.

PATIENT #63 : 16 year old boy

Presenting Problem: Painful right knee after falling from a ladder. Treatment with physiotherapy for five weeks did not give the patient much relief.

Diagnosis: Patella femoral syndrome with quads wasting in the right knee.

Treatment: Patient was given a few APS treatments to his knee and he was able to return to work quicker than anticipated. APS machine took the inflammation and swelling down.

PATIENT #64 : 60 year old Male

Presenting Problem: Chronic backache following lumbar disc surgery in 1995, decompressive laminectomy at L-2/L-3 in 1996. Patient had a deep brain implant in 1989 to reduce the pain in his back. The deep brain implant had been functioning since that time, but effective pain relief is much less now.

Diagnosis: Chronic backache following previous back surgery.

Treatment: He had four treatments with APS. APS gave immediate relief in the stiffness of his back. He had more relief from pain than from the deep brain implant. He had a total of four treatments and was asked to come back as needed for further treatment.

PATIENT #65 : 63 year old Female

Presenting Problem: Chronic lower backache following two back surgeries. Fusion was done at level L-4 & 5. Patient unable to lie on her hips at night. Non-steroidal anti-inflammatories are not working.

Diagnosis: Chronic lumbar backache following back surgery.

Treatment: The patient received a total of ten APS treatments. She had immediate pain relief after the first treatment, as well as increased mobility. Her symptoms improved gradually with each treatment. She was discharged after ten treatments and will follow-up as needed.

PATIENT #66 : 60 year old Female

Presenting Problem: Chronic right lower backache, as well as right hip arthralgia. X-rays confirmed moderate osteoarthritis of the right hip, as well as osteoarthritis of the lumbar spine.

Diagnosis: Osteoarthritis of the right hip and lumbar spine.

Treatment: This patient did not get any long lasting relief from nonsteroidal anti-inflammatories and analgesics. She was started on APS treatment concentrating on the right hip. She had almost immediate relief of pain after the first treatment and she could sleep throughout the night. So far she's had three treatments. She will come for further treatments as needed.

PATIENT #67 : 57 year old Female

Presenting Problem: Severe bilateral painful feet, difficulty to walk, duration more than one month.

Diagnosis: Bilateral planter fasciitis.

Treatment: This lady had treatment with nonsteroidal anti-inflammatories, as well as strapping of the feet done by a Chiropodist. She was offered water treatment with APS. She had remarkable improvement in her pain symptoms as well as stiffness after the first treatment. So far she has had six treatments. She will come for follow-up as needed.

PATIENT #68 : 58 year old Female

Presenting Problem: Twisted back and sprained left lumbar area. Presented to ER with severe backache, needing narcotic injection to settle down the pain. Patient was started on muscle relaxants and nonsteroidal anti-inflammatory drugs.

Diagnosis: Acute lumbar back injury.

Treatment: Patient came back to my office four days after her injury. She had some improvement in her lumbar strain, but she still had some nerve root irritation into the left leg down to the left knee. She was offered APS treatment. Treatment was concentrated on the L-4 dermatome. She had improvement and more mobility after the first treatment. She improved further with the second treatment, and now she almost has no symptoms of radiculopathy. She will come back as needed. This lady only needed two treatments.

PATIENT #69 : 40 year old Female

Presenting Problem: One and a half year history of painful right ankle and heel. Physiotherapy and nonsteroidal anti-inflammatories did not give any relief and massage therapy did not help.

Diagnosis: Right Achilles tendonitis.

Treatment: Patient was started on APS treatments. She had relief after the first treatment and there was a significant reduction in the swelling. So far she has had four treatments and she continues to improve.

PATIENT #70 : 79 year old Female

Presenting Problem: Lower backache and pain in both buttocks, duration more than three months. Patient known with diabetes. X-rays suspicious of possible spinal stenosis. Peripheral circulation is good. Arthritis screen workup revealed a positive RA latex test, which will make rheumatoid arthritis a possible diagnosis.

Diagnosis: Chronic backache and buttock pain. Diagnosis not established yet.

Treatment: This lady had been tried on nonsteroidal anti-inflammatory drugs without any apparent relief. She received a total of eight APS treatments. She gets pain relief for six to eight hours. She can sit better but overall there has not been much improvement. She will be followed up by a rheumatologist and orthopaedic surgeon.

PATIENT #71 : 60 year old Female

Presenting Problem: Slipped and pulled a muscle in her left groin area.

Diagnosis: Left sartorius muscle strain.

Treatment: Patient was started on APS treatment. She had almost immediate relief of pain after the first treatment. Patient received a total of six treatments with complete resolution of her symptoms. APS treatments were done over the entire sartorius muscle.

PATIENT #72 : 82 year old Male

Presenting Problem: Reduced range of motion of the left shoulder, crepitus left shoulder and pain of the left shoulder.

Diagnosis: Osteoarthritis of the left shoulder.

Treatment: Patient received a total of three treatments. He had improvement in his pain as well as his mobility. He will come back as needed.

PATIENT 73 : 42 year old Male

Presenting Problem: Involved in a motor vehicle accident in October. Sustained compression fractures to L-1 and L-3, and then chronic lower backache. Treatment consisted of nonsteroidal anti-inflammatories, muscle relaxants, physiotherapy and massage therapy.

Diagnosis: Chronic lower backache following motor vehicle accident, L-3 and L-1 compression fractures.

Treatment: Patient was offered APS treatment every second day. He had a total of three treatments without any significant improvement.

PATIENT #74 : 45 year old Female

Presenting Problem: Lumbar sacral backache for six months. Was extensively investigated by a neurologist and rheumatologist. CT scan and MRI did not reveal any abnormalities. Also numbness of both feet and pain radiating into both thighs. Patient had been tried on nonsteroidal anti-inflammatory drugs and analgesics.

Diagnosis: Chronic lower backache, cause unknown.

Treatment: Patient received a total of four APS treatments concentrating on the lower back and the sciatic nerve distribution. She had no relief from her symptoms. As a matter of fact, her backache became worse, therefore APS treatment were stopped.

PATIENT #75 : 80 year old Female

Presenting Problem: Severe arthralgia of the left knee. X-rays revealed severe osteoarthritis requiring knee replacement.

Diagnosis: Severe osteoarthritis of the left knee.

Treatment: Patient was tried on nonsteroidal anti-inflammatories and analgesics without any relief. She was offered three treatments of APS with no improvement in her symptoms. She opted not to continue to have further treatment.

PATIENT #76 : 69 year old Female

Presenting Problem: Chronic lower backache and right hip pain, evidence of osteoporosis. X-rays of the lower back: compression fracture of L-1, severe degenerative narrowing of the lumbar sacral disc space, severe osteoarthritis of the S.1. joints. X-rays of the right hip: minor signs of osteoarthritis.

Diagnosis: Degenerative disc disease of the lumbar sacral spine, osteoporosis, mild osteoarthrosis of the right hip.

Treatment: Patient is on Fosamax and nonsteroidal anti-inflammatory drugs. She also takes analgesics as needed. She had a total of six APS treatments concentrating on the lower back and the right hip. Her back improved about 50% but no relief of pain in the right hip. She will be investigated further with a bone scan.

PATIENT #77 : 36 year old professional golf player

Presenting Problem: Chronic pain in the right hip, especially with twisting of his hips.

Diagnosis: Acute Piriformis Syndrome

Treatment: This patient had physiotherapy, massage therapy, as well as muscle relaxants and nonsteroidal anti-inflammatory drugs. He's had symptoms more than three months. It reached a point where it was difficult for him to play golf. He had almost immediate relief of pain after his first treatment. He also increased mobility in his right hip. He received a total of three treatments with a great improvement of his symptoms. He will come back as needed.

PATIENT #78 : 45 year old Male

Presenting Problem: Long-standing history of more than a year of right lower backache with radiculopathy into the right groin and right buttock. Pain is worse with sitting. Patient has been extensively investigated by a neurologist, neurosurgeon and orthopaedic surgeon. Investigations on this patient did not reveal any abnormalities. Patient had no relief from nonsteroidal anti-inflammatories and analgesics.

Diagnosis: Suspected L-1 L-2 nerve root irritation with radiation into the right groin.

Treatment: Patient had a total of eight treatments concentrating on the lower back, right hip and the right groin area. APS gave patient relief for up to 24 hours, but according to him this was not much different from massage therapy. He decided to come back as needed.

PATIENT #79 : 36 year old Female

Presenting Problem: Bilateral carpal tunnel syndrome,

Treatment: Patient received three treatments of APS with mild reduction in the swelling of her wrists and improvement of the paresthesia in both hands. She will be referred for conduction studies to assess the severity of her carpal tunnel syndrome. She will come back as needed for APS treatment.

PATIENT #80 : 61 year old Female

Presenting Problem: Numbness and pain left wrist, positive Tinel sign.

Diagnosis: Left carpal tunnel syndrome.

Treatment: Patient was referred for conduction studies. She was started on APS. She had a total of four treatments with marked relief in her symptoms and swelling. She will be followed up as needed.

PATIENT #81 : 52 year old Female

Presenting Problem: coccydynia for four months. Analgesics and nonsteroidal anti-inflammatories did not help. X-rays of the coccyx and sacrum did not reveal any abnormalities.

Diagnosis: coccydynia.

Treatment: Patient received a total of three treatments with APS concentrating on the suprapubic area and L-5 area. Patient had some improvement immediately and improved with every subsequent treatment. She will come back as needed for further treatment.

PATIENT #82 : 37 year old Female

Presenting Problem: Chronic cervical headache after a whiplash injury in 1980. Patient had been using muscle relaxants and nonsteroidal anti-inflammatory drugs, as well as physiotherapy. She was treated with interferential and tens devices. She did not get much relief. On examination most of the tenderness is in the C-2 C-3 area.

Diagnosis: Chronic cervical pain following whiplash injury.

Treatment: Patient received three treatments of APS with immediate relief of symptoms, as well as increased mobility. She will come back as needed for further treatments.

PATIENT #83 : 36 year old Female

Presenting Problem: Lower backache with discomfort going down to the knee and slightly distally, decreased sensations in the S-1 dermatome of the right leg, pulling sensation and some pain in the right leg. Patient had a L-4 L-5 lumbar discectomy in February, 1997. Postoperatively she started having discomfort in both legs as described above. She attended physiotherapy which unfortunately did not help, and actually seemed to have deteriorated her symptoms. A bone scan in November demonstrated mild increased uptake of L-4 and L-5. MRI demonstrated a mild L-4 L-5 disc herniation, but not to the extent to be causing symptoms.

Diagnosis: Post operative backache with radiculopathy into both legs.

Treatment: Patient received a total of eleven APS treatments. Although she had increased range of motion in her lower back, there had been not much improvement in her numbness and pain symptoms. Therefore, APS treatments were stopped.

PATIENT #84 : 77 year old Male

Presenting Problem: Chronic lower backache. X-rays revealed evidence of lumbar spondylosis. Patient had a bleeding peptic ulcer before, therefore he cannot use nonsteroidal anti-inflammatory drugs.

Diagnosis: Lumbar spondylosis.

Treatment: Patient had six treatments. He had almost immediate relief after each treatment and most of his symptoms stayed away for about two days. He will come back as needed for further treatment.

PATIENT #85 : 74 year old Female

Presenting Problem: Severe arthralgia of both knees day and night. X-rays revealed severe osteoarthritis. The orthopaedic surgeon suggested bilateral knee replacement. Patient is reluctant to go for knee replacement.

Diagnosis: Severe osteoarthritis of both knees.

Treatment: Patient tried nonsteroidal anti-inflammatory drugs which did not help much. She received a total of three APS treatments on both knees. She had relief of symptoms after the third treatment. She can actually sleep throughout the night. She will be followed up as needed.

PATIENT #86 : 35 year old Female

Presenting Problem: Right sciatica with nerve root irritation going to the right posterior thigh and right lateral thigh.

Diagnosis: Acute sciatica on the right side.

Treatment: Patient did not get much relief from nonsteroidal anti-inflammatory drugs and muscle relaxants. She had a total of seven APS treatment. Her stiffness and mobility improved after the first treatment. She started getting pain relief after the fifth treatment. Most of her symptoms were resolved after the seventh treatment. She will come back as needed. She did not get any relief from the nonsteroidal anti-inflammatory drugs and muscle relaxants.

PATIENT #87 : 43 year old Female

Presenting Problem: Painful left shoulder after a fall in the beginning of April. No relief with nonsteroidal anti-inflammatory drugs. Limited abduction. Arthrogram failed to show a rotator cuff tear but it did show the presence of adhesive capsulitis.

Diagnosis: Left supraspinatus tendonitis and adhesive capsulitis.

Treatment: Patient received a total of five treatments without any apparent relief. Physiotherapy also failed to give her any sustained relief. Patients symptoms improved after a cortisone shot into the supraspinatus muscle,

PATIENT #88 : 52 year old Female

Presenting Problem: Bilateral carpal tunnel syndrome with a positive Tinels test. Patient worked as a cook.

Diagnosis: Bilateral carpal tunnel syndrome.

Treatment: Patient was given a total of five APS treatments with almost complete resolution of her symptoms.

PATIENT #89: 63 year old Female

Presenting Problem: Two month history of pain in the left hip and the left anterior thigh. She has pain all the time and cannot sleep at night. X-rays of the hip revealed moderate severe osteoarthritis of the left hip. Patient was tried on nonsteroidal anti-inflammatory drugs which did not help.

Diagnosis: Osteoarthritis of the left hip.

Treatment: Patient received a total of five APS treatments. She had immediate long lasting relief after her first treatment. She also had increased range of motion. Her hip continued to improve with her subsequent treatments.

PATIENT #90 : 39 year old Female

Presenting Problem and Diagnosis: Left Bell's palsy with drooping left upper eyelid and left nasolabial fold.

Treatment: Patient was started on high doses of Prednisone. She was also started on APS treatment. She had improvement with each treatment. She had a total of three treatments. Each time her symptoms improved. The Prednisone also continued to the improvement. This lady had three treatments with almost complete resolution of her Bell's palsy. She was asked to come back as needed.

PATIENT #91 : 75 year old Female

Presenting Problem: Long-standing history of pain in her neck and headaches. The pain usually originates in the occiput but then shoots to the top of her head and down. X-rays of the cervical spine showed degenerative changes at C-3 and 4 and C-4 and 5. Patient had been extensively investigated by a neurologist with no obvious neurological problems. She had ten physio sessions which included interferential and tens machines.

Diagnosis: Headaches secondary to cervical degeneration.

Treatment: Patient received a total of five APS treatments. She's had immediate relief of pain, as well as improved mobility after her first treatment and her neck had progressive improvement with subsequent treatments. She feels that this is the only treatment modality that had worked for her so far. She will continue with APS treatments as needed.

PATIENT #92 : 69 year old Female

Presenting problem: Lower backache, significant discomfort in both legs with difficulty in walking and tightness in the hamstrings. CT scan confirmed a diagnosis of spinal stenosis. Patient will be booked for decompression surgery.

Diagnosis: Spinal stenosis.

Treatment: Patient was tried on nonsteroidal anti-inflammatory drugs which did not help. She received two treatments of APS. Patient had almost immediate relief of pain and improved mobility and she had pain relief for at least two days. She will continue to come back for treatments as needed until she gets her surgery.

PATIENT #93 : 45 year old Male

Presenting Problem: Right tennis elbow.

Treatment: Patient was started on Piroxicam, a nonsteroidal anti-inflammatory drug which did not give him much relief. He then received a total of eight APS treatments with complete resolution of his symptoms. He was able to return to work within three weeks.

PATIENT #94 :

Presenting Problem: Chronic lower lumbar backache for eight months. No history of injury. X-rays revealed minor spondylotic changes.

Diagnosis: Chronic lower backache, cause not yet found.

Treatment: Patient was tried on nonsteroidal anti-inflammatory drugs which did not help. She received a total of four APS treatments. She had no improvement with the first two treatments. She started loosening up with her third treatment. She still has a significant amount of pain and treatments will continue every second day. She will be referred for a bone scan. Blood for arthritis screen did not reveal any abnormalities.

PATIENT #95 : 39 year old Female

Presenting Problem: Chronic backache since 1993. L-5 S-1 disc herniation after injury at work. This was followed by a L-5 S-1 discectomy. Of note is that this lady has a conjoint right side S-1 nerve root leaving one foramen. Her right leg pain was relieved after the surgery, but her back pain did not relieve. She still has intermittent acute flare-ups of sciatic nerve irritation. She had been getting physiotherapy off and on. She had also used tens device extensively. This gives her some relief for brief periods of time.

Diagnosis: Lumbar backache with intermittent sciatica symptoms, conjoint right sided S-1 nerve root.

Treatment: This lady has received five treatments with APS. She had no relief of pain or increased range of motion. As a matter of fact the APS treatments made her backache worse, therefore it was stopped after five treatments.

PATIENT #96 : 70 year old Female

Presenting Problem: Chronic arthralgia both knees, associated night pain, nonsteroidal anti-inflammatory drugs only giving temporary relief. X-rays demonstrate medial compartment degeneration on both sides, more so on the left. Orthopaedic surgeon decided to do arthroscopic debridement on the left knee. Patient is waiting for this procedure to be done.

Diagnosis: Bilateral osteoarthritis of the knees, left side more than the right side.

Treatment: Patient received a total of seven APS treatments. She did not have any relief with the first two treatments, but after the third the knees started getting gradually better. She is now at the stage where she can walk comfortably and she does not have any night pain.

PATIENT #97 : 41 year old Female

Presenting Problem: Chronic neck pain, shoulder pain and lower backache. Known with scleroderma and asthma.

Diagnosis: Chronic shoulder pain and backache secondary to scleroderma and fibromyalgia.

Treatment: This lady has had massage therapy and physiotherapy in the past with some relief. She's extremely sensitive to any kind of analgesic or nonsteroidal anti-inflammatories, therefore she cannot take any. She's had a total of five APS treatments concentrating on the shoulders and the thoracic and lumbar spine. She's had tremendous relief of pain as well as increased range of motion and mobility. This is the only treatment modality that is working.

PATIENT #98: 44 year old Male

Presenting Problem: This patient had an L-5 laminectomy with a left sided S-1 neurolysis followed by a L-5 S-1 spinal fusion. This was done in 1996. Patient now has recurrent L-5 S-1 pain with S-1 radiculopathy into the left foot.

Diagnosis: Lumbar backache with left sided S-1 radiculopathy.

Treatment: Patient received two treatments with APS. He had marked improvement in his mobility as well as pain relief. He will continue with treatments every second day as needed.

PATIENT #99 : 55 year old Female

Presenting Problem: Pain in the neck, numbness in the right shoulder, right index and the right little finger.

Diagnosis: Suspected cervical nerve root irritation with radiculopathy to the right hand.

Treatment: Patient was referred to physiotherapy. She was also started on Arthrotec nonsteroidal anti-inflammatory drugs. She received two treatments of APS. Each time she had some relief in her radiculopathy symptoms. She will continue with physiotherapy.

PATIENT #100 : 59 year old Female

Presenting Problem: Long-standing history of pain and muscle spasm in the right cervical, right trapezius, and the right shoulder region. Clinical examination, as well as x-rays confirms diagnosis of right shoulder impingement.

Diagnosis: Right shoulder impingement.

Treatment: Patient was referred to physiotherapy and she was started on APS treatments. The left shoulder was 100% improved after the first treatment. Range of motion was better. There was less pain and less tenderness. Patient had a total of five treatments. Most of her symptoms are gone, but she still has mild impingement symptoms for which she will be referred to an orthopaedic surgeon.

PATIENT #101: 50 year old Female

Presenting Problem: Painful left shoulder with abduction and internal rotation since March, 1998, after patient received a blood transfusion. Patient received physio for three months without any relief. On examination she has atrophy of the shoulder muscles. Abduction is limited. Treatment so far consisted of hear intervention and progressive strengthening exercises.

Diagnosis: Frozen left shoulder.

Treatment: Patient received five treatments of APS with immediate relief of pain and increased range of motion. She will continue with APS treatment as needed.

PATIENT #102 : 65 year old Male

Presenting Problem: Lower backache with radiation into the left leg, pain in the left hip. X-rays demonstrated multilevel spondylosis with signs of L-5 laminectomy. Left hip shows arthritic changes.

Diagnosis: Spinal stenosis recurring after surgery in 1975.

Treatment: Patient received extensive physio without any real improvement. Patient received a total of four Action Potential Stimulation treatments with immediate relief of symptoms and improvement of his mobility. He improved to the point where can start playing golf again. He will come back as needed.

PATIENT #103: 31 year old Male

Presenting Problem: Sustained a whiplash injury in 1996 after he was involved in a motor vehicle accident. He also sustained some right shoulder injury. After this accident he developed headaches which involved the back of his head and sometimes all over. He received extensive physiotherapy. Re-evaluation after two years reveals a normal neurological examination with mild neck tenderness. CT scan of the head didn't reveal any abnormalities. Patient does not have problem with anxiety and depression.

Diagnosis: Post MVA headache, emotional overlay.

Treatment: As mentioned , this patient had extensive physiotherapy, psychotherapy and evaluation by specialists. He takes Trazodone, Epival, Paxil, Tylenol and Fiorinal for his headaches. He had treatments with Tens devices interferential, massage therapy and extensive physiotherapy. He had four APS treatments without any relief. Therefore, APS treatment was stopped.

PATIENT #104 : 79 year old Female

Presenting Problem: Severe lower backache with radiculopathy into the right hip and leg. X-rays revealed multi-level osteoporosis, compression fracture of T-12 and L-1, but no obvious pathology in the right hip. Patient had multiple other problems, as well as early dementia. She has been tried on nonsteroidal anti-inflammatories and analgesics.

Diagnosis: Osteoporosis, compression fractures of T-12 and L-1, early dementia.

Treatment: Patient did not get relief with nonsteroidal anti-inflammatories and analgesics. She had a total of five APS treatments without any significant relief. Due to his lady 's dementia and underlying depression it is difficult to evaluate her. My impression is that APS will not improve this lady's condition, therefore APS treatment was stopped after five treatments.

PATIENT #105 : 37 year old Male

Presenting Problem: Severe pain and numbness in both hands and wrists.

Diagnosis: Bilateral carpal tunnel syndrome.

Treatment: Conduction studies revealed severe bilateral carpal tunnel syndrome. Patient was started on APS. He received a total of five APS treatments without any significant relief. Nonsteroidal anti-inflammatories did not help either. Patient was referred to orthopaedic surgeon for urgent decompression on both sides.

PATIENT #106 : 65 year old Male

Presenting Problem: Patient fell down a ladder in March, 1998. Since that time he's had very sore shoulders and very limited range of motion and abduction.

Diagnosis: Right rotator cuff syndrome, x-rays suggestive of a right rotator cuff tear.

Treatment: Patient used nonsteroidal anti-inflammatory drugs on and off. His pain improved, but there was no improvement in his range of motion and abduction. Patient received a total of four APS treatments. He had immediate improvement in the range of motion, as well as abduction. After four treatments he had no more pain and his range of motion was almost back to normal. He will come back as needed for further treatment.

PATIENT #107: 70 year old Male

Presenting Problem: Painful heel for four days. On examination he had severe swelling and redness over the right Achilles tendon.

Diagnosis: Right Achilles tendonitis and para tendonitis.

Treatment: Patient received a combination of a nonsteroidal anti-inflammatory drug as well as APS treatment. He had two APS treatments with significant reduction of swelling and pain. The treatment was based on his foot in a bowl of water and the other electrode on the posterior calf. He was advised to come back as needed for further treatment. He will come back every second day.

PATIENT #108 : 63 year old Male

Presenting Problem: Chronic arthralgia both knees. X-rays confirmed arthritic changes in both knees.

Diagnosis: Osteoarthritis both knees.

Treatment: Patient is known with peptic ulcer disease, therefore he cannot use nonsteroidal anti-inflammatory drugs. He received a total of three treatments. He had immediate relief of pain and stiffness. His symptoms were better for at least 24 hours at a time. So far he's had three treatments and he will return as needed for further treatment. His arthritis is not bad enough to warrant knee replacement. Seeing that he cannot use nonsteroidal anti-inflammatory drugs, APS will be the treatment of choice for him in future.

PATIENT #109 : 80 year old Female

Presenting Problem: Blunt trauma to the chin. This resulted in a two month history of pain to the right TM joint as well as headaches. She used nonsteroidal anti-inflammatory drugs which controlled her symptoms, but did not take the pain and stiffness away.

Diagnosis: Right TM joint dysfunction.

Treatment: Patient received a total of six APS treatments. She had immediate relief of pain after the first treatment. She could also chew without any difficulty. Her pain and stiffness went away for two days in the beginning. She continued to improve with further treatments. This lady also received physiotherapy to the TM joint but this made the symptoms worse. She had long lasting relief from APS treatment.

PATIENT #110 : 57 year old Female

Presenting Problem: Long standing history of backache. Bone scan in 1977 showed extensive facet arthropathy mainly involving the lumbar spine.

Diagnosis: Chronic backache due to extensive facet arthropathy mainly in the lumbar spine.

Treatment: This lady had been on nonsteroidal anti-inflammatory drugs and Tylenol #3 for a few years. She only gets symptomatic relief. Blood work for inflammatory arthritis did not show any abnormalities. This lady had a total of five APS treatments. Initially she did not get any relief. Her mobility started improving after her second treatment. She also had improvement in her backache. APS gave her long lasting relief and increased mobility. APS worked better and gave her longer relief than analgesics and nonsteroidal anti-inflammatory drugs.

PATIENT #111 : 85 year old Female

Presenting Problem: Chronic pain in the right shoulder. Decreased range of motion. Cannot sleep at night. Cannot sleep on right shoulder. X-rays show severe osteoarthritis of the AC joint, as well as the right shoulder.

Diagnosis: Osteoarthritis of the right shoulder.

Treatment: This lady had been tried on nonsteroidal anti-inflammatory drugs. She also received two Cortisone injections without any significant relief. She received a total of two APS treatments. She had immediate improved range of motion, as well as significant reduction in her pain. She will come back as needed for further treatment with APS.

PATIENT #112 : 62 year old Female

Presenting Problem: Recurrent spasms and pain in the left posterior distal hamstring, cause unknown.

Diagnosis: Left posterior distal hamstring chronic spasm type pain.

Treatment: This lady has tried multiple treatment modalities including tens devices, massage therapy, nonsteroidal anti-inflammatory drugs, and muscle relaxants, without any improvement. She gets up to 50 spasms in one hour. She had a total of three APS treatments. The first two treatments were aimed at treating the hamstring muscle itself. She did not get any relief from the first two treatments. The third treatment included the lower back. There seems to be some improvement in her spasms. They are not intense as before. She will continue with APS every second day.

PATIENT #113 : 42 year old Male

Presenting Problem: Involved in a motor vehicle accident in October, 1997. He sustained compression fractures of L-1 and L-3.

Diagnosis: Chronic backache following a motor vehicle accident. Compression fractures of L-1 and L-3.

Treatment: Patient received extensive treatment to his back, including massage therapy, physiotherapy, tens devices, chiropractor treatment, analgesics and nonsteroidal anti-inflammatory drugs. He had long slow recovery but is still experiencing a significant amount of backache. He was tried on APS. He received a total of three treatments. APS treatments did not make any noticeable difference in pain relief and mobility. He will continue with physiotherapy.

PATIENT #114 : 55 year old Male

Presenting Problem: Left lumbar backache with radiation into the left thigh. X-rays revealed minor spondylotic changes in the lumbar region. No abnormalities in the hips are seen. Duration of discomfort 0 four months.

Diagnosis: Sciatica left side.

Treatment: Nonsteroidal anti-inflammatories were tried. This gave the patient some temporary relief. Nothing long lasting. Patient developed gastritis secondary to the nonsteroidal anti-inflammatories. Patient had a total of three APS treatments. He had immediate relief after the first treatment and he could sleep through the night. He had relief of pain and increased mobility. Patient had long lasting relief after his third treatment and he will come back as needed.

PATIENT #115 : 58 year old Female

Presenting Problem: Numbness in the right fifth finger, bilateral neck muscle spasms. Patient had a previous neck injury which resulted in a C-6 C-7 discectomy and C-6 C-7 fusion in July, 1997. She had post operative pain and paresthesia. This then resulted in C-6 C-7 laminectomy and bilateral foraminotomies. This was done in March, 1998.

Diagnosis: Post operative cervical muscle spasm as well as referred pain and numbness into the right hand.

Treatment: Patient received extensive rehabilitation at a tertiary center. She also received extensive physiotherapy. At physiotherapy she was tried on tens machines. She had a total of three APS treatments. According to her the stimulation with APS felt much better. She did not note any relief from tens machines or interferential. After three APS treatments she still has pain radiating into the right arm and right hand but she feels that the spasms are not as severe as before. She will continue to come back for more treatments.

PATIENT #116 : 49 year old Female

Presenting Problem: Severe pain and stiffness of the right shoulder. X-rays showed adhesive capsulitis of the left shoulder.

Diagnosis: Frozen left shoulder.

Treatment: Patient had extensive physiotherapy with interferential and tens devices. She had a total of six treatments with APS. She had immediate pain relief after the first treatment. She also had increased range of motion. This was the only treatment that helped her. Nonsteroidal anti-inflammatory drugs did not give her any relief.

PATIENT #117 : 58 year old Male

Presenting Problem: Pain in the left foot region that seems to be originating from the plantar fascia. Lately the pain had been more in the area of the posterior tibial tendon, as well as into the mid foot. He has been tried on nonsteroidal anti-inflammatory drugs but did not tolerate this very well. Clinically he has a flat foot deformity of the left foot.

Diagnosis: Tarsal tunnel syndrome with an element of planter fasciitis.

Treatment: Nonsteroidal anti-inflammatories, as mentioned, could not be tolerated. He had a total of three APS treatments without any pain relief. This was done with pad placements over the painful area. I think a treatment with a water bucket would have been more successful. The three treatments of APS did not give any relief, therefore the patient was sent to an orthopaedic surgeon for further assessment and treatment. He was also prescribed a full contact insole and he was also advised to avoid walking barefoot.

PATIENT #118 : 22 year old Male

Presenting Problem: Lumbar backache for six years. Also, a history of polyarthralgia involving the neck and left hip. Also a history of severe abdominal pain at times as well as diarrhea. X-rays of the upper lower back, hip and S1 joint did not reveal any abnormalities. Arthritis screen was negative.

Diagnosis: Lumbar backache, exact cause not yet established.

Treatment: Patient had been tried on muscle relaxants and nonsteroidal anti-inflammatory drugs. He also received a total of two APS treatments with no improvement whatsoever. He will be referred to a gastroenterologist to try to exclude inflammatory bowel disease.

PATIENT #119 : 38 year old Female

Presenting Problem: Severe lower backache and pain in both knees.

Diagnosis: Severe osteoarthritis of the lumbar spine, previous right knee replacement, severe osteoarthritis of the left knee.

Treatment: Patient was tried on anti-inflammatory drugs before, but she had some side effects from it and did not get much relief. She had a total of three APS treatments with very good, long lasting pain relief in her lower back as well as her knees. She gets pain relief for up to one week at a time. She will come back as needed for follow-up treatment.

PATIENT #120 ; 24 year old Female

Presenting Problem: Blunt trauma to left abdomen resulting in severe abdominal muscle pain and spasms. Duration – one month.

Diagnosis: Rectus abdominis muscle strain.

Treatment: Patient received physiotherapy for about a month. She also tried nonsteroidal anti-inflammatory drugs. She received a total of five APS treatments. She only started getting relief after the fifth treatment. Although it took a long time to work, she felt that APS treatments were superior to physiotherapy, nonsteroidal anti-inflammatories, tens and interferential. She had long lasting relief after the fifth treatment.

PATIENT #121 : 39 year old Female

Presenting Problem: Chronic lower backache. Patient is known with Crohn's disease. X-rays of the S1 joint and lumbar sacral spine did not reveal any abnormalities. She developed a gastritis from nonsteroidal anti-inflammatory drugs. She is currently on morphine bid for chronic lower backache. She drives a school bus by occupation.

Diagnosis: Crohn's disease, nonsteroidal anti-inflammatory drug gastropathy, mechanical backache.

Treatment: this lady had a total of four APS treatments. Although she didn't have immediate good pain relief she could feel that there was a difference in her mobility. By the third treatment she could cut down on the slow release morphine. She had been taking this twice a day. Hopefully she will improve to the point where she can stop the morphine.

PATIENT #122 : 73 year old Female

Presenting Problem: Severe pain in the right lower back, right buttock, and the right leg as far down as the knee since May, 1998. This lady was tried on nonsteroidal anti-inflammatory drugs. She did not get much relief. X-rays of the lumbar spine revealed signs of severe spondylosis, as well as narrowed disc spaces. There are also signs of severe osteoarthritis in the lower lumbar facet joint. X-rays of the right knee show signs of moderately severe osteoarthritis in the medial compartment of the knee.

Diagnosis: Osteoarthritis of the lumbar spine with radiculopathy into the right knee. Also, osteoarthritis of the right knee.

Treatment: This lady had APS treatments to her lower back, as well as the right knee. She had significant improvement in the right knee, as well as reduction of swelling and improvement of mobility. She also had less pain in the back. She received a total of five treatments. After five treatments she did not need any further treatments. She will come back as needed.

PATIENT #123 : 68 year old Male

Presenting Problem: Severe lower backache and severe muscle spasms in the lower back and SI joints. Patient is known with prostate CA for which he had surgery five years ago. On examination he had severe lumbar muscle spasms. Straight leg raising was normal. He was started on Flexeril 10 mg tid, as well as Tylenol #3. He is also on Losec 20 mg bid. X-rays revealed signs of moderate spondylosis in the lumbar region. He also had bilateral total hip replacements eight months ago. No obvious signs of malignant metastases are seen on x-rays.

Treatment: Flexeril and Tylenol #3 with not much relief. Advil was also tried with no relief. Patient received a total of three APS treatments without any relief. Therefore patient will be sent for a bone scan to exclude prostate metastases.

PATIENT #124 : 44 year old Female

Presenting Problem: Sudden onset of lower backache with pain radiating into the left leg and left foot for about three weeks duration. Previously this lady had a herniated disc at level of L-4 and L-5 ten years ago. X-rays of the lumbar sacral spine showed moderate spondylosis of the lower lumbar spine, as well as the narrowing of the disc spaces between L-4 and L-5 and L-5 and S-1. No compression fractures are seen. Examination did not reveal any obvious signs of nerve root compression.

Diagnosis: Sciatica, left side.

Treatment: This lady was tried on nonsteroidal anti-inflammatory drugs and muscle relaxants with not much relief. She had a total of seven APS treatments. She started getting relief right from the first treatment. By the fifth treatment all of her leg symptoms were gone. She only had mild discomfort in the left buttock. She will come back for treatment as needed.

PATIENT #125 : 21 year old Male

Presenting Problem: Hit on his left jaw in April of this year and since that time he has had pain and discomfort in both TM joints. He used nonsteroidal anti-inflammatory drugs without any significant relief.

Diagnosis: Bilateral TM joint dysfunction.

Treatment: Patient received a total of three APS treatments. He had immediate relief of pain and more mobility in both joints. He will come back as needed for further treatment.

PATIENT #126 : 60 year old Female

Presenting Problem: Left trochanteric bursitis and left sciatica. Duration – six months.

Treatment: Patient had tried Naprosyn without and significant relief. She had a total of three APS treatments. Her sciatic pain improved immediately. Her left trochanteric bursitis did not improve after first treatment, but she had some relief after the second treatment. After the third treatment almost all her symptoms were gone. She will continue with APS treatment as needed.

PATIENT #127 : 70 year old Female

Presenting Problem: Painful right shoulder for months. On examination very tender over the medial portion of the left supraspinatus muscle.

Diagnosis: Left supraspinatus tendonitis.

Treatment: Nonsteroidal anti-inflammatories with not much relief. She was given a total of three APS treatments. She did not have any relief after the first treatment. She still had a lot of pain but she had more mobility in the shoulder. After the third treatment her pain disappeared. She still had some discomfort over the mid portion of the supraspinatus muscle. She will continue with treatments as needed. APS treatments worked much better than nonsteroidal anti-inflammatory drugs.

PATIENT #128 : 36 year old Male

Presenting Problem: Arthralgia both feet and lower backache.

Diagnosis: Psoriatic arthritis of the back as well as psoriatic arthritis of both feet.

Treatment: Patient was started on Methotrexate about two months ago. At the office he still had significant discomfort in the back as well as in his feet. He was started on APS treatments to both feet and to the back. After his initial treatment he did not have any immediate relief. After the second treatment his feet started feeling better. After the third treatment he had more mobility in his back and some pain relief. It is difficult at this stage to say whether the Methotrexate is working or if the improvement is solely due to the APS treatment. The overall impression is that he does benefit from APS treatment. He will continue with treatment as needed.

PATIENT #129 : 46 year old Male

Presenting Problem: This gentleman had a herniated disc at L-3 L-4 level for which he had back surgery in 1997. He also suffers from psoriasis. He currently presents with pain in his right lower back radiating into the right anterior knee and lateral right thigh.

Diagnosis: Lumbar backache with radiculopathy into the right knee, as well as psoriasis.

Treatment: Patient had eight APS treatments. He did not get any immediate relief of pain and stiffness after the first few treatments. Subjectively however, he feels that there had been some improvement with APS. He will continue with treatments in future.

PATIENT #130 : 57 year old Male

Presenting Problem: Lower back pain. X-rays showed degenerative changes at L-5 and S-1 with some tropism of the L-5 and S-1 disc space.

Diagnosis: Osteoarthritis of the lumbar sacral spine.

Treatment: This gentleman had been tried on nonsteroidal anti-inflammatory drugs. He did not get much relief from nonsteroidal anti-inflammatory drugs. Patient had seven treatments with APS with remarkable relief in his lower backache and mobility. He had immediate relief after the first treatment and he improved with every subsequent treatment.

PATIENT #131 : 57 year old Male

Presenting Problem: Right thoracic muscle strain after lifting.

Diagnosis: Right intercostals muscle strain.

Treatment: Patient was initially tried on nonsteroidal anti-inflammatory drugs for about a week without any relief. He had to APS treatments with complete resolution of his symptoms.

PATIENT #132 : 74 year old Male

Presenting Problem: Severe lower backache with radiculopathy into both buttocks. This gentleman is known with previous CA of the bladder for which he had a radical cystectomy. He is also known with diabetes. He also had previous back surgery after a motor vehicle accident. On examination he had severe tenderness over L-3 L-4 and L-5 with severe bilateral muscle spasm. He also had evidence of bilateral sciatic nerve root irritation. Patient had x-rays of the lumbar sacral spine which revealed moderate severe spondylosis in the lumbar region. The lumbar sacral x-rays show an area of bone destruction in the lower part of the sacrum.

Diagnosis: Lumbar spondylosis with radiculopathy into both buttocks.

Treatment: Patient is in renal failure, therefore he was not tried on nonsteroidal anti-inflammatory drugs. He is using a Duragesic patch which is a narcotic analgesic. He had a total of five APS treatments without any relief. It is quite possible that this gentleman might have some metastases into his sacrum, therefore APS treatments were stopped and he was sent for a CT scan of the sacrum and pelvis. The result of the CT scan is not known at this stage.

PATIENT #133 : 43 year old Male

Presenting Problem: One year history of left TM joint discomfort

Diagnosis: Left TM joint dysfunction.

Treatment: Patient uses nonsteroidal anti-inflammatory drugs which give him temporary relief. He will see a maxillofacial surgeon for follow-up. This gentleman had a total of three APS treatments without any relief. The APS treatments were stopped.

PATIENT #134 : 69 year old Male

Presenting Problem: Painful left shoulder, especially after golfing. This started in September, 1997. He had some physiotherapy to his shoulder. He reinjured his shoulder in January of this year while he was doing water aerobics. On examination abduction is slightly impaired. X-rays showed mild signs of osteoarthritis at the AC joint.

Diagnosis: Left rotator cuff syndrome. Small left rotator cuff tear has to be excluded.

Treatment: This gentleman had tree APS treatments. He had immediate improvement in his symptoms and claimed that he could sleep on his shoulder. He was able to cut down on the nonsteroidal anti-inflammatories., He will come back for further treatment as needed.

PATIENT #135 : 70 year old Female

Presenting Problem: Patient is known with ischemic heart disease, peripheral vascular disease and restless leg syndrome. She controls her restless leg symptoms with Sinemet and Rivotril. She is also on Trental to improve the circulation in her feet. She's also on Adalat XL 60 mg once a day.

Diagnosis: Peripheral vascular disease and restless leg syndrome.

Treatment: Patient was tried on APS treatment. She had a total of three treatments. She did not get any relief. As a matter of fact she felt that the APS treatment made her restless leg syndrome worse. Therefore APS treatment was stopped.

PATIENT #136 : 75 year old Female

Presenting Problem: Paresthesia and pain in the left hand for some time, also to a lesser extent in the right hand. Conduction studies confirmed bilateral carpal tunnel syndrome.

Diagnosis: Bilateral carpal tunnel syndrome.

Treatment: This lady had a total of ten treatments, both wrists. She was virtually symptom free after ten treatments and will come back as needed for further treatment. She is still waiting to see the orthopaedic surgeon for possible decompression of the left side.

PATIENT #137: 27 year old Female

Presenting Problem: Painful right foot over the medial arch, lateral side of the foot and the bottom of the right foot. This lady was extensively investigated and the diagnosis of reflex sympathetic dystrophy was made.

Diagnosis: Reflex sympathetic dystrophy.

Treatment: This lady had a total of four APS treatments. She also had extensive physiotherapy where other electro therapy devices were used, like tens and interferential. She did not find that APS made any difference in her treatment. Subjectively she does think that the pain might be a little bit better. She did however find comfort of the stimulation better and according to her there was no adaptation.

PATIENT #138 : 54 year old Male

Presenting Problem: This gentleman was thrown off by a horse in the beginning of August. He sustained right rib fractures as well as contusion to the lung, resulting in hemoptysis. He also injured his shoulder.

Diagnosis: Right rib fractures and chest contusion, right shoulder injury.

Treatment: This gentleman was treated with nonsteroidal anti-inflammatory drugs. He did not get much relief from drug therapy. Therefore he was tried on APS treatment. He had a total of three treatments with immediate relief in pain as well as increased mobility in his right shoulder. He was very impressed with the APS device and would like to purchase a device once it is approved in Canada.

PATIENT #139 : 80 year old Male

Presenting Problem: Painful right shoulder. Cannot sleep at night. Also chronic painful left hip. X-rays of the right shoulder revealed osteoarthritis of the AC joint, right rotator cuff tear, as well as right shoulder impingement, severe osteoarthritis of the left hip.

Diagnosis: Right shoulder osteoarthritis, impingement and rotator cuff tear, osteoarthritis of the left hip.

Treatment: This gentleman had some Cortisone injections into his right shoulder before. He cannot sleep on his right shoulder at night. He's had previous peptic ulcer disease so therefore he cannot tolerate nonsteroidal anti-inflammatory drugs. He had a total of three APS treatments. He had immediate relief in his right shoulder symptoms. He also had increased range of motion. He did not get any relief from the pain in his left hip.

PATIENT #140 : 85 year old Female

Presenting Problem: Severe lower backache. X-rays revealed spondylosis in the lower lumbar region with severe osteoarthritis in the lower lumbar facet joints. There is also signs of compression fractures of L-4 and L-5.

Diagnosis: Osteoarthritis of the lumbar spine and old compression fractures of L-4 and L-5.

Treatment: Patient is using nonsteroidal anti-inflammatory drugs and Tylenol #3 to control her pain symptoms. She received a total of two APS treatments. She found that there was no improvement with APS treatment and preferred not to come back for further treatment.

PATIENT #141 : 61 year old Female

Presenting Problem: Pain in her right shoulder after a fall in February. She landed on her out stretched arm, injuring her right shoulder. Pain is radiating from the back of the neck. At times there is associated tingling down the right arm. Patient is also a non insulin dependent diabetic. Examination revealed full range of motion of her shoulder. No impingement could be demonstrated. There is no indication of biceps tendon involvement. Neurologic evaluation of her right arm showed a diminished brachia radialis reflex on the right side. Marked tenderness is noted over the right side on palpation of the lateral aspect of the neck.

Diagnosis: Possible brachial plexus injury, possible cervical spondylosis.

Treatment: Patient had 6 APS treatments concentrating on the neck and the right shoulder. She had no relief of her symptoms, therefore patient was referred to orthopaedic surgeon for assessment. This lady will most likely need conduction studies to evaluate her for possible brachial plexus traction injury.

PATIENT #142 : 59 year old Female

Presenting Problem: Painful right shoulder with limited abduction after a fall on the right shoulder. She was assessed as having a rotator cuff injury and treatment was started with APS. There had been improvement of pain, range of motion, and stiffness. The improvement though was very slow. X-rays of the right shoulder revealed a fracture of the greater tuberosity of the humerus.

Diagnosis: Fracture of the greater tuberosity of the humerus.

Treatment: As mentioned, this lady had received a total of five treatments with APS. There has been progressive improvement. The improvement though was very slow due to the presence of a fracture. Pain relief was equal to that of pain killers and anti-inflammatory drugs, but the APS worked better for range of motion and reduction of swelling.

PATIENT #143 : 65 year old Male

Presenting Problem: Painful right shoulder, limited range of movement, pain with abduction. X-rays showed a very prominent acromion process which may be impinging on the rotator cuff.

Diagnosis: Right shoulder impingement.

Treatment: Patient received a total of 5 APS treatments. Initially he could not sleep on his right shoulder. After the five treatments he was able to sleep on his right shoulder. After the five treatments he was able to sleep on his right shoulder and his range of motion had been much better. He will come back as needed for further treatment. Treatment with nonsteroidal anti-inflammatory drugs and cortisone injections did not give him much relief.

PATIENT #144 : 50 year old Female

Presenting Problem: This lady developed pain in the right leg three years ago. She twisted her back while moving a patient. MRI done showed a ruptured disc but no surgery was needed. She slowly improved to some degree. Then a year ago the pain started again in the right leg. It's a burning pain below the knee. X-rays of the lumbar spine shows some narrowing at the L-5 disc region. This lady is very sensitive to nonsteroidal anti-inflammatory drugs or analgesics, therefore she cannot tolerate any medications. She had extensive physiotherapy and massage therapy without any relief of her pain. She was seen by a rheumatologist as well as a neurologist. Clinical examination did not reveal any major abnormality. Both the neurologist and the rheumatologist came to the conclusion that this lady is suffering from chronic mechanical lower back pain with early vertebral joint degeneration, but no signs of spinal stenosis or nerve root irritation.

Diagnosis: Chronic mechanical lower back pain.

Treatment: As stated previously this lady cannot tolerate any medications. She had been tried on physiotherapy and massage therapy with very little improvement. She had a total of 10 treatments with APS. There had been no improvement in her symptoms. As a matter of fact, at times she felt worse after APS treatments. Therefore APS was stopped and she was advised to continue with an exercise program.

PATIENT #145 : 73 year old Female

Presenting Problem: Chronic right shoulder pain and chronic pain and numbness in both hands. X-rays of the right shoulder showed signs of moderate osteoarthritis of the AC joint and glenohumeral joint. Frontal view shows a prominent osteophyte in the lower margin of the articulating surface of the head of the humerus.

Diagnosis: Osteoarthritis of the right shoulder, bilateral carpal tunnel syndrome.

Treatment: Patient had been tried on nonsteroidal anti-inflammatory drugs. She was also started on APS treatment. She had immediate relief in her carpal tunnel syndrome symptoms after the first treatment. She also had improvement in her range of motion of the right shoulder. Her shoulder improved with subsequent treatments. She also had significant degree of improvement in her carpal tunnel syndrome symptoms. She will be referred for conduction studies to confirm the diagnosis. After 5 treatments all her carpal tunnel syndrome symptoms disappeared.

PATIENT #146 : 75 year old Female

Presenting Problem: Right bronchus CA. Patient had a right lobectomy in May 1998. Post operatively she had severe pain in the right incisional area.

Diagnosis: Post operative right thoracic chest pain.

Treatment: Patient received two intercostals blocks to see if this would help for pain relief. This did not help much. Patient received a total of 3 APS treatments. She had good pain relief of up to 24 hours at a time. Patient will come back for APS treatment as needed.

PATIENT #147: 32 year old Male

Presenting Problem: Severe upper and lower backache after involvement in motor vehicle accident. Patient used Tylenol #4's and nonsteroidal anti-inflammatories for backache. He did not get much relief. X-rays did not reveal any abnormalities.

Diagnosis: Upper and lower backache following motor vehicle accident.

Treatment: Patient received a total of 3 APS treatments. There had been immediate improvement in his mobility, stiffness and pain after the first treatment. He improved with subsequent treatments and was asked to come back as needed after the third treatment.

PATIENT #148 : 57 year old Female

Presenting Problem and Diagnosis: Bilateral plantar fasciitis.

Treatment: Patient had been tried on nonsteroidal anti-inflammatory drugs, pain killers, inner foot soles and she went to a podiatrist who taped her feet every second day. She had a significant amount of pain and had a very difficult time to walk. When she presented to my office she had this problem for 4 months already. This lady had 5 treatments on both feet with APS using the water bucket method. She started improving after the third treatment. This had been the only treatment method that had given her significant relief of pain and stiffness. She will come back as needed for follow-up treatment.

PATIENT #149 : 38 year old Female

Presenting Problem: This lady initially had surgery for right carpal tunnel syndrome years ago. She then developed a right scapholunate instability. She had significant pain and reduced range of motion in the right wrist to the point where she could not do anything with her right hand or wrist. She then underwent a radial styloidectomy and STT fusion. After this surgery she was in a cast for 10 days and the right wrist and hand was immobilized for a further 3 to 4 months. When physiotherapy was started the right wrist had very limited range of motion. The right wrist was extremely stiff. This lady received physiotherapy extensively for 5 months without any significant relief.

Diagnosis: Right wrist stiffness following multiple surgeries.

Treatment: This lady was started on APS treatments. She had immediate improvement in her stiffness and range of motion. APS was the only treatment modality that improved her right wrist. So far she has received a total of 14 treatments every second or third day. This is the only treatment modality that is helping her. Her range of motion is improving with each subsequent treatment. This is one patient where APS was far superior to any other treatment tried before.

PATIENT #150: 37 year old Female

Presenting Problem: Long standing history of neck ache with occipital radiation, as well as a pressure headache. She also has shoulder blade pain and weakness of the right arm. Examination showed an absent right biceps jerk and a weak right elbow flexion and extension. MRI confirmed a C-5, C-6 and C-7 disc herniation. Conservative measures were followed with chiropractic and massage therapy. When conservative measures failed a neurosurgeon decided to go ahead with surgical correction.

Diagnosis: C-5, C-6 and C-7 disc herniation.

Treatment: Patient received a total of 3 APS treatments concentrating on the neck and the right shoulder. According to her there had been improvement in her range of motion. Her neck muscles are also feeling more relaxed. She still has the right arm symptoms and the surgery will probably go ahead as planned. APS will be used as a supportive measure until the date of surgery.

PATIENT #151: 44 year old Male

Presenting Problem: Capsular strain of the right shoulder after canoeing.

Treatment: Patient received a total of 3 APS treatments concentrating on the right shoulder and upper arm. With each treatment he had gradual improvement in his shoulder discomfort and range of motion. He will continue with APS treatments as needed.

PATIENT #152: 16 year old boy

Presenting Problem: Acute lumbar strain after picking up a cupboard. X-rays shows evidence of a pars interarticularis defect of L-4. This gentleman was started on muscle relaxants and Voltaren. He did not get much relief.

Diagnosis: Acute lumbar strain.

Treatment: This boy had 2 APS treatments concentrating on his lower back. He had immediate improvement in his pain and mobility after his second treatment. He was fit to return to his part-time work.

PATIENT #153 : 77 year old Female

Presenting Problem: Left sided knee pain. This lady had a total left knee replacement in February 1994. X-rays revealed loosening of the prosthesis.

Diagnosis: Left knee arthralgia.

Treatment: This lady will be referred back to orthopaedic surgeon for a review of her left knee prosthesis. She was tried on APS treatment. She received a total of 3 treatments with immediate improvement in her mobility, stiffness and pain. After the third treatment she had no more symptoms. She will come back as needed for further treatment.

PATIENT #154 : 56 year old Male

Presenting Problem: Two year history of swelling and pain of both lower legs. This gentleman was extensively investigated with CT scans, bone scan and x-rays. No cause was found for this bilateral lower leg pain. His circulation appears to be adequate.

Diagnosis: Bilateral leg pain, cause unknown.

Treatment: This patient had been tried on various treatments including nonsteroidal anti-inflammatories and analgesics. It only gives him temporary relief. He received a total of 4 APS treatments without any significant relief of pain. Therefore, APS was stopped.

PATIENT #156 : 80 year old Female

Presenting Problem: Chronic headache which is thought to be secondary to osteoarthritis and spondylosis of the cervical spine. This lady also suffers from Parkinson's disease. She is breast CA and diabetes.

Diagnosis: Suboccipital headaches secondary to spondylosis and osteoarthritis of the cervical spine.

Treatment: This lady was tried on nonsteroidal anti-inflammatory drugs without any relief. She was tried on analgesics and Elavil. She received a total of 2 APS treatments without any significant relief of her symptoms. She preferred not to continue with APS treatments.

PATIENT #157 : 36 year old Female

Presenting Problem: Severe left sided thoracic pain and spasm for 2 years. This lady suffers from multiple sclerosis.

Diagnosis: Severe left sided chest pain and muscle spasm in patient with multiple sclerosis.

Treatment: This lady had been tried on strong analgesics, massage therapy, physiotherapy, chiropractor treatment with no relief in her symptoms. She is in chronic pain and cannot sleep at night. She was started on APS treatments. Initially there was no relief. After the third treatment there had been some improvement. After the fifth treatment her pain had disappeared and she had pain relief for up to 48 hours. She continued with APS treatment and she now needs to come once in 2 weeks for a treatment. APS is not indicated for multiple sclerosis itself, but it gives this lady significant relief of her muscle spasms and pain associated with multiple sclerosis. This had been the only treatment helping her.

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