

LETTERS TO THE EDITOR

Dear Sir,

MACRODEX AND ARTHRITIC JOINTS

I have recently treated a small number of my patients suffering from chronic arthritic joint disorders by injection of Macrodex fluid expander into the synovial joint cavity. The results have been remarkably successful.

Immediate relief of pain is obtained, and over a period of weeks a marked improvement in joint function occurs to the point that patients who were previously unable to walk have since walked distances of 1-2 miles. This improvement was sustained for more than 6 months.

Moreover, x-ray examination of some of the joints before and after treatment indicated normalisation of joint surfaces.

These results seem very dramatic - I would like to find out if other readers of this journal have tried similar treatments, and whether they have obtained similar results.

Short case histories are reported below.

*June Green,
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CASE HISTORY 1

A 50 year old male patient, with severe inflammatory arthritis and psoriasis, developed the following as time progressed:

- 1 Slipping of C3 on C4 and spondylolisthesis of L5 on S1
- 2 Severe arthritis of the toes necessitating bilateral amputation
- 3 Rupture of the left biceps tendon with disorganisation of the hanging left shoulder joint

Progressive treatment

After extended high dose oral prednisolone therapy, the patient developed acute pustular psoriasis and this treatment was discontinued. Methotrexate therapy was substituted until liver function abnormality precluded its use. Razoxane (125mg TDS) was used subsequently. The liver function tests indicated persistent abnormality. Local steroid injections were administered throughout his illness. This is likely to have contributed to the rupture of his biceps tendon.

Two years ago a bitter disappointed man refused any more steroid injections into a (very painful) right shoulder. After explanation about the procedure, and prayer, he was injected with the plasma expander Macrodex to attract the synovial fluid and its nutrients. Macrodex was specifically selected because it has a 5 year shelf life. It was harmless to the joint. Progressive relief of pain and improvement in available movement was obtained. The patient became hopeful and optimistic.

Results

Two years later, a happy man demonstrated voluntarily a normal shoulder joint with full range of movement. X-ray examination of the shoulder joint showed a normal appearance. This treatment was not harmful. Further it normalised the joint function. Repeat treatments are possible (see later case studies)..

CASE HISTORY 2

A 69 year old ex lorry driver (who was obese due to heavy beer drinking) had the following medical history:

- 1960 Given a plaster jacket for back pain.
- 1962 An arthrodesis of right wrist was performed for ununited fractured scaphoid
- 1965 He developed diabetes
- 1975 A chronic chest wheeze from smoking
- 1982 He suffered a myocardial infarction with subsequent angina, and generalised osteoarthritis
- 1983 A hiatus hernia was diagnosed on barium meal
- 1987 An angelchik prosthesis was inserted as a collar around the oesophagus.

He became depressed following persisting marital disharmony which is ongoing; and developed severe diabetic cheiro-arthropathy with much pain and deformity of both hands.

- 1990 Bilateral carpal tunnel decompression was performed with only moderate improvement
- 1991 Angiography for claudication demonstrated aorto-iliac atherosclerosis and bilateral stenosis in the superficial femoral blood vessels; conservative treatment was advised because of his angina.

He also suffered diabetic sensory and motor neuropathy of both lower limbs. He developed severe arthritis of both knees and x-ray delineated a loose body in the right knee.

- 1993 Arthroscopy revealed grade 2-3 changes, but no loose body. Knee replacement operation was refused because of his cardiac and vascular condition. Carotid angiography demonstrated that he had 80% and 60% stenosis respectively of his carotid arteries.

Treatment

- 24/02/83 An injection of Macrodex (5 ml) into the right knee produced immediate loss of pain and improved movement.
- 16/03/93 The patient knelt on the patella! The fluid leaked out of the arthroscopy hole inferiorly causing pain for a few days.
- 27/04/93 A further injection of Macrodex (3 ml) into the right knee relieved the pain, and he again became very active in his garden.
- 01/10/93 Injection of Macrodex into the right knee again gave further immediate relief.
- 05/03/94 Injection of Macrodex (5ml) into right knee.
- 08/07/94 Carotid endarterectomy was performed.

He returned to the orthopaedic surgeon for reassessment for a right knee replacement on 16/02/95. He was told that there had been such great improvement in this knee, both clinical and radiological, that the operation was no longer necessary. X-ray

showed osteoarthritis, but the joint spaces were well-preserved. He was advised to undergo physiotherapy. He received a further injection of Macrodex on 15/04/95 at his request. He can move easily and drive his car without pain or effort. After 6 months, an x-ray of the right knee revealed 'osteoarthritis of the right knee with joint space well-preserved'.

CASE HISTORY 3

A 74 year old woman suffers from a deformed right foot (talipes equino-varus). She also suffers from diabetes mellitus requiring insulin since 1968; and from megaloblastic anaemia. Due to regular use of a walking stick, she has carried the weight from her right foot through her right arm and shoulder. Since 1990 she has suffered from painful limited movement in the right shoulder. Movement was restricted to the horizontal level, and she was unable to sleep due to the pain.

Treatment

The right shoulder was injected with Macrodex (5ml) with immediate pain relief. Five days later she could raise the arm to full elevation, and sleep without pain. A week later she was doing all the housework. Three months later she was so delighted with the improvement in her right shoulder that she requested an injection for the arthritis (confirmed by x-ray) in her deformed right ankle. An injection of Macrodex was slowly and easily inserted into the arthritic ankle (the talipes inversion being held straighter during the injection). A week later, she was free from pain and learning to walk correctly on the foot, which has shown some improvement in alignment. After six months, both these joints are functioning well.

Note: Macrodex is only available as an IV infusion bag. It has not, to my knowledge, been used previously in joints. It is only obtainable from: Medisan Pharmaceuticals AB, AR4 5741 74, Uppsala, Sweden.

Dear Sir,

PREPARATION FOR PROLOTHERAPY

I have a suggestion about preparing a patient for prolotherapy which is concurrently two pronged, and should be started two months before this procedure is scheduled.

In a previous letter, I discussed the importance of seeing that a patient takes adequate copper intake every day so as to form enough of the lysyl oxidase to ensure improvement in the cross-linkage of fibres of collagen and elastin. I now suggest that this be started two months before prolotherapy.

Next I suggest that the patient also takes 250mg of niacinamide every 3 hours for 6 doses a day. The brand prescribed should clearly state the excipients on the label. Niacinamide in this dosage and on this schedule causes no adverse side effects. But those niacinamide tablets that contain hydroxypropyl cellulose, a substance supposedly inert, can cause unpleasant side effects in some individuals. The purpose of this therapy is to provide multiple therapeutic benefits.

The chondrocytes in the upper layers of articular cartilage have less niacinamide adenine dinucleotide (NAD) in them than the deeper layers, and this lack is one factor that makes the more superficial layers of articular cartilage increasingly vulnerable to surface wear and tear. Niacinamide in this dosage level will increase somatic muscle strength, muscle work capability, improve the patient's joint range index, and help improve balance sense. If you care to test one effect of niacinamide on the flexibility of the outer ear cartilages of a patient before this therapy is instituted, you will find them to be rather stiff. With niacinamide therapy, these external ear cartilages become quite flexible. I don't know if this means more elastic. I don't know if the modulus of elasticity of cartilage has ever been determined, or for that matter the modulus of elasticity of fascia or aponeurotic tissue. I don't wish to imply that outer ear cartilages are the same as articular cartilages when both serve different functions. (My impression gathered from niacinamide treatment of patients who have painful chronic shoulder bursitis is that it helps relieve the pain and increases the flexibility of the bursal connective tissue.)

The third division of the first prong is to give the patient concurrently with the above therapeutic agents, 250mg of Vitamin C every 3 hours for 6 doses a day. In examining your electron microscope photos of the collagen fibres, it seems likely that therapy with Vitamin C may improve the quality of collagen in the patient's body and give rise to more uniform collagen fibres when prolotherapy is instituted.

The second prong of my suggested preparation for prolotherapy is to teach the patient how to deal with pain and discomfort better. It is very rare for a doctor in medical school or residency training to learn how to do this. However, a 462 page paperback could do much to help a patient deal with pain, stress, and illness better than would otherwise be the case. The author of this book *Full Catastrophe Living (Using the Wisdom of your Body and Mind to Face Stress, Pain and Illness)* is Jon Kabat-Zinn, PhD. He is Founder and Director of the Stress Reduction Clinic at the University of Massachusetts Medical Center, and Associate Professor of Medicine at the University of Massachusetts Medical School. The book describes the Programme of the Stress Reduction Clinic at the Medical School.

The above programmes should be continued during the entire period of prolotherapy and then perhaps for the life of the patient, because stopping them will gradually make them revert to a less desirable physical status.

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