Aberration of Biomechanical Function Due to Poor Digestion

BY PAUL S. INSELMAN, D.C.

All too often in chiropractic practice, only the biomechanical aberration is addressed. Have you ever wondered why many of our patients return visit after visit with the same complaint? Have you ever wondered why many of our patients fail to hold their adjustments for any acceptable length of time? The answer may lie in the deficiency of enzymes.

What are the symptoms of their deficiency? Vitamin and mineral deficiencies produce acute symptoms, whereas food enzyme deficiencies are more insidious, producing chronic degenerative changes.

Edward Howell, M.D., postulated his food enzyme concept in the 1930's. In the 1980's, Howard Loomis, Jr., D.C., expanded Dr. Howell's work from theory to the clinical setting. In Dr. Loomis' book entitled *Introduction to Enzyme Nutrition*, published in 1986, he stated that "all liv-ing things contain enzymes. The enzymes found in food are responsible for the biochemical reactions that bring plants to ripeness. The enzymes found in all foods are the workers responsible for the benefits usually given to vitamins and minerals, which are called co-enzymes, and do not have the capacity to do work. Yet, they are systematically removed from the diet. Food enzymes must be removed from our food supply in order to achieve extended shelf life. This process began in the early 1900's when our society began to change from a rural agricultural base to an urban industrial one.

How are they replaced in the diet? While we are very careful to replace the vitamins and minerals lost in the processing of food, we do not replace the more important food enzymes. Unless supplemental food enzymes are taken, our diets will continue to be deficient in these essential nutrients.

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Case History

A 33-year-old female, who has been under my care since 1988 for a variety of musculoskeletal problems, was involved in an MVA in October of 1991. Physical examination revealed restricted and painful lumbar ranges of motion in all planes, but more noticeable in extension, which measured 10/30. Orthopedic tests that were positive were Hyperextension, Lasague bilaterally at 30 degrees, Mennells bilaterally, and Kemp's Test for localized pain at the left L5/Sl junction. All DTR's were grade 2 and symmetrical. Pinwheel testing revealed no appa-rent abnormality. There were palpable active trigger points along the quadratus lumborum muscle on the right, and the piriformis muscles bilaterally. There was a functional short leg 1/2" on the right. On visual inspection, the patient presented with the spine to the right of the midline and a hyperlordosis. On motion palpation, there was a fixation (subluxation) at L5 and the left sacro-iliac joint.

Plain AP/lateral lumbar X-rays revealed an alarization with a pseudoarthrosis on the left. There was a mild (<7 degree) curvature with the concavity to the right. All disc spaces were well maintained with the exception of the L5/Sl disc space, which was mildly narrowed.

Treatment was trigger point ultrasound therapy with a Flexion/Distraction adjustment of L5. Mechanical blocking was performed in a Category 3 position with a right short leg. The patient was placed in a lumbo-sacral support and advised to use ice 5-10 minutes every 2 hours. The patient was seen four times per week for the first week, and then 3 times per week for 2 weeks.

After 10 days of treatment, the patient was not improving; so, a Lumbar MRI was obtained which revealed a mild disc bulge at L3/L4, L4/L5, L5/Sl. There was no visible nerve root compression or herniation.

Treatment was continued for another 2 weeks to bring the total treatment time to 4 1/2 weeks. At the end of 4 1/2 weeks, the patient was referred for orthopedic consultation because she was not improved. The patient was given a cortisone injection and oral anti-inflammatories. After 2 weeks of oral therapy, the patient was still not improved, so she was referred for physical therapy and a neurological work-up. The neurological work-up, complete with needle EMG, revealed a mild L5/Sl radiculopathy. After 3 weeks of physical therapy, the patient discharged herself because she was getting worse.

At that time, the patient returned to my office for further treatment. Side posture technique was used to try to release the L5 fixation. The patient was instructed to perform knee-to-chest and pelvic tilt exercises at home in an effort to strengthen the intrinsic muscles of the pelvis. The patient was unable to tolerate this treatment, so I referred her back to the orthopedist.

The orthopedist advised a series of 3-4 epidural injections. The patient declined the epidural injections, and chose to live with her pain and manage it the best that she could via chiropractic and analgesics. From June 1992, through May 1997, the patient was seen on an average of 1-2 visits per week for pain control. In the interim she had to leave her job because she was unable to sit for more than 20-30 minutes at a time.

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About 1-2 times per year, the patient would suffer a severe exacerbation that would necessitate her getting another cortisone injection to help restabilize her.

In May 1997, enzyme replacement therapy was introduced to the patient care regime. Her symptoms, at the time of consultation, were severe lower back pain, bilateral hip and leg pain, extreme fatigue, hyperirritability, goiter, skin lesions on the chest and head, muscle tightness of the chest on the left.

A fasting examination revealed positive findings of a left high occiput, posterior scapula on the left, left first rib subluxation, left short arm, a long second toe bilaterally, C3 posterior and right upon static palpation, and fixation of T4-T5 on motion palpation. Fasting positive palpatory diagnostic reflex exam revealed positive suboccipital reflex, salivary gland, mandible, pectoralis, left costal arch, midgastric, right transverse abdominal, iliac crest, descending colon, pyramidalis, adductor, fascia lata, metatarsal arch. A golf ball-sized nodule was palpated on the left side of the thyroid.

The patient was advised to discontinue the ingestion of white sugar products. In addition she was advised to greatly increase her intake of fruits, vegetables and water, and she was placed on enzyme supplements to provide a rich source of carbohydrate and its synergists, as well as hydrolytic enzymes that will aid in the digestion of carbohydrates.

The patient was then given "Challenge Powder", a nutrient rich drink comprised of the proper ratio to each other of proteins, starches, sugars, lipids and fiber. The patient then digested the Challenge Powder for forty-five minutes, and the same structural and reflex exam was performed in order to compare pre-prandial with post-prandial findings.

Post-prandial exam findings were: occiput level, shoulders level, right posterior scapula, first ribs normal on both sides, arm lengths normal, long second toe bilaterally, C3 posterior and right upon static palpation, fixation of T4-T5 on motion palpation.

Positive palpatory diagnostic reflex exam findings, both pre-prandial and post-prandial were left costal arch, midgastric, descending colon, and adductors.

A diet analysis revealed that the patient craved chocolate, salt, and protein. There were excessive amounts of dairy products, whole grains, cereals, and breads ingested. There were minimal servings of fruits and vegetables that were ingested per day. The patient ingested 4-5 servings of milk per day along with minimal servings of water, tea and coffee. Alcohol use averaged 2 drinks per week.

Discussion

For six years this patient was treated from a purely biomechanical perspective. Numerous chiropractic, and physical medicine techniques were utilized by me, and the traditional medical establishment. All results were the same: marginal, at best.

The performance of a fasting exam is vitally important in order to take the function of digestion out of the clinical picture. Food, and its digestion, has a pronounced effect on the musculoskeletal system. Consider the following example: Suppose the patient ate rotten seafood that caused a severe gastrointestinal upset. After the patient has had an episode of pronounced vomiting and diarrhea, he or she comes to your office to be treated. Do you think your exam findings of muscle spasm, subluxation, and structural aberration would be different than if the patient had not had that bout of gastrointestinal upset? This, obviously, is an extreme example; but it is being used to illustrate the effect that the viscera can have on the musculoskeletal system.

By comparing the pre-prandial palpatory diagnostic reflex exam results with the post-prandial results, we are able to diagnose which organs are under digestive stress. Remember, these are not organs that are diseased. These are organs that are under stress. The positive findings, both pre- and post-prandial, were left costal arch indicating gall bladder stress (fats), midgastric reflex indicating adrenal stress (protein insufficiency), descending colon (toxicity due to incomplete digestion), adductors (nervous system stress).

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By obtaining and evaluating the 24-hour urinalysis, as prescribed by Dr. Loomis, we are able to confirm our physical findings and dietary intake analysis by seeing, biochemically, how the patient is digesting and utilizing food.

Treatment

The patient was advised to discontinue the ingestion of white sugar products. In addition she was advised to greatly increase her intake of fruits, vegetables and water, and she was placed on enzyme supplements to provide a rich source of carbohydrate and its synergists, as well as hydrolytic enzymes that will aid in the digestion of carbohydrates.

The patient was also given a manual osseous adjustment of T4/T5 which was found to be fixed on motion palpation both pre- and post-prandial. Although the patient's subjective complaints were bilateral, sacro-iliac pain, and bilateral leg and hip pain, those areas were not adjusted because they did not show up on examination. The patient was simply placed on enzyme and dietary protocols and advised to return in three weeks.

Results

Within one week of commencing enzyme replacement therapy, the patient reported that her goiter was almost gone and the "rock hard" muscle in her chest was also normalized. Within 3 weeks, the patient's lower back, hip and bilateral leg symptoms were 90% improved. Her bowel function was normal. Her "stress" level was normal. The skin lesions on her chest and scalp were resolved. The craving for sugar was resolved.

After three weeks of treatment, objective findings were normal movement of the spine on motion palpation from occiput to sacrum. Leg lengths were equal. The spine was in the midline. All palpatory digital exam reflexes were normal post-prandial. Palpation of the thyroid revealed a pea-shaped nodule on the left side of the thyroid. Skin lesions on scalp and chest were resolved.

Discussion

Musculoskeletal dysfunction has many components. There are mechanical aberrations, nutritional aberrations, environmental aberrations, and psychological aberrations that can all affect the patient adversely. Each and every component must be evaluated thoroughly. While we, as chiropractors, are unable to control the environmental and psychological factors without referring the patient out, we are able to control the majority of the mechanical and nutritional dysfunctions that patients present to our offices.

Digestive enzymes are an important and integral part of the patients' health and well-being. Without enzymes, there is no life. With a diminished enzyme bank, chronic disease and dysfunction will prevail. Every time a patient eats, his/her enzyme bank is depleted. Look to this depletion as a possible cause for your patients' biomechanical dysfunction. It may hold the answer as to why our patients don't hold their adjustments or get as well as we all would like. *(References available upon request.)*

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