Highland
Musculo-Skeletal
Associates, Inc.

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Mark A. Greer
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RE: Diane M. Leach
Case No. 310516
File No. 80005-69042

Dear Mr. Greer:

I evaluated the above plaintiff in my office on March 14, 1997, for the purpose of an independent medical evaluation. Throughout the history and physical she was accompanied by a nurse, Barbara Johnson.

MEDICAL HISTORY: This examination was in reference to alleged residuals of injury sustained to the patient's right shoulder in a motor vehicular accident which occurred on April 2, 1995. The patient's pre-existing condition did reveal a congenital and/or developmental abnormality which appears to be Springle's deformity. This is an abnormality of the thoracic musculature that causes winging or posterior displacement of the scapulae. This can be seen with certain nerve injuries to the chest wall. More commonly, however, it is a developmental abnormality. This pre-existing problem was mentioned in the medical records. The area of trauma described by the patient and the records would not have created this particular injury.

The accident in question involved the plaintiff as a front seat passenger in a vehicle driven by a friend. This was a late model Ford Mustang. The accident occurred at approximately 1:15 in the morning on Berea Road near the Triskett Road intersection. Traffic was merging into a turn lane. A vehicle was waiting to make a left turn and the driver allegedly misjudged that distance. She did state this accident occurred in the turning lane. She was wearing a seat belt.

She does recall moving forward and believes she may have hit the upper superior aspect of the right shoulder, more in the mid clavicular area on the dashboard area, There was no loss of consciousness. There was no reported injury to the chest wall.

She was conveyed by ambulance to the Fairview General Hospital Emergency Room where she was evaluated for an injury to the right shoulder and headaches. The x-rays were performed which were essentially normal. She was discharged with a diagnosis of a "shoulder contusion".

She then went back to her family physician, Dr. John Thomas, who saw her on one occasion. He recommended antidepressants. This apparently was a new physician who was not aware of her previous problems. She had been followed by Dr. Mary Kraft who is her current treating physician.

Subsequently she was referred to the Cleveland Clinic and evaluated by a number of physicians. The initial contact was with a Dr. Sahgal. He subsequently referred her to Dr. Cianflocco and Dr. John Brems, both affiliated with the Department of Orthopaedic Surgery. Initially she was treated with physical therapy in an attempt to improve her overall level of function. She did present with a history of a previous scapular winging. It was felt that this was "worse" on the basis of the patient's history.

A number of diagnostic tests were performed including an MRI of the right shoulder which was normal, performed on August 16, 2995. She also had an MRI done of the musculature of the thorax and scapula on October 11, 1995. This revealed asymmetry in the scapular stabilizers with a wing scapular appearance. The right trapezius serratus anterior appeared to be hypoplastic. There was a compensatory enlargement of the rhomboid major and minor on the right side. This confirms radiologically the suspicion of a chronic developmental abnormality that causes the winging of the scapula. It was felt that there was a "palsy" or non-functioning of the long thoracic nerve. There is absolutely no mention of injury to the long thoracic nerve which would cause this acutely or related to a trauma.

EMG and nerve conduction studies were also performed in order to more clearly evaluate the neurological element. The scan showed reduced spinal accessory nerve response in the trapezius, as well as in the serratus anterior. This would be compatible with chronic poor muscular function. Absolutely no traumatic lesion was noted. There was "no evidence of an acute or recent axonal loss lesion" indicating the deformity was not part of a traumatic incident.

It was felt that because of her scapular winging and the better function in therapy once the scapular was stabilized, a different procedure was contemplated.

She was initially evaluated by Dr. Bednar in the Philadelphia, Pennsylvania area, on or about November 15, 1995. She presented the history of an injury to the right shoulder region. His impression was that since the injury had occurred, she began having scapular winging. This, in fact, is not accurate and was an inaccurate assumption by this physician. She was referred for a pectoralis muscle transfer with a fascilota graft. X-rays were normal. He reviewed the MRI scan which showed no rotator cuff tear. An EMG on October 10, 1995, showed chronic neurogenic changes in the rhomboid muscles, as well as serratus anterior muscles. Changes were also noted in the trapezius consistent with a partial spinal accessory nerve injury. It was this doctor's

opinion that there was some mild arthritis of the neck and that she strained her sternoclavicular joint.

One surgical procedure was performed on November 22,1995 at the Thomas Jefferson University Hospital. This was a scapular stabilization by pectoralis major transfer with fascilota graft. The right thi-' was used at the graft site and the above procedure was performed.

She then followed up with Dr. John Brems and Dr. Cianflocca for her follow-up care. She was immobilized for a period of time and then started on physical therapy . The last time she saw Dr. Brems was six weeks prior to this evaluation. She also saw Dr. Brems after this evaluation and I received a personal communication from Dr. Brems, She continues to do physical therapy, now in the form of the theraband resistance exercises. She started on isometric exercises with a resistance ball. She feels that her condition is not significant improved. She still has prominent winging and decreased range of motion of the shoulder.

Medications included on Ultram 0 to 3 or 4 per day depending on her level of **pain.**

EMPLOYMENT HISTORY: She was employed at that time of the accident by the Allstate Insurance Company as a secretary. She was unemployed for a period of time and now is working for Northwestern Mutual Insurance Company. She cannot recall the dates that she was unable to work due to alleged injuries.

PAST MEDICAL HISTORY revealed a right sided shoulder winging. She was evaluated by Dr. Radkowsky, an orthopaedic surgeon was is now retired. She never had any specific care or treatment for this. She claimed this was asymptomatic prior to this evaluation.

By review of the EMG and nerve conduction studies it was clear that there was a chronic pathology in this area. The hypoplastic (reduced size) musculature on the MRI scan would also be compatible with a long standing abnormality.

CURRENT SYMPTOMS: At the time of this evaluation, she believes the surgery has helped somewhat with her muscular pain. She still has some aching discomfort in the right trapezius, described as a pins and needles, as well as a dull aching pain. She occasionally has intermittent pain radiating to the right deltoid. Cold and damp weather seems to aggravate her as well as typing and keeping her arms in position for too long a period of time. She uses a sling occasionally. The right arm and shoulder area bothers her less when she does not use it as actively.

She did claim to have full shoulder function and was a cheerleader when she was in her high school days. She did not discuss any previous shoulder dysfunction. She feels that she was worse after the motor vehicular accident.

PHYSICAL EXAMINATION revealed a pleasant 30 year old female who appeared in no acute distress. She was somewhat tearful during part of the exam.

Examination of her posterior chest, upper back, neck and shoulder area, revealed bilateral underdevelopment of the periscapular muscles. There appeared to be no significant musculature between the shoulder blades and in the levator scapular area. On range of motion the left scapular clearly winged as well, but not to any extent as the right one does. Any attempt at forward motion of the arm at the shoulder joint causes a significant winging. The entire scapula appeared to be shifted up more superiorly along the chest wall. This may have been one of the goals of the surgical procedure to stabilize at least one portion of the scapula. However, the lower portion wings tremendously. This gives her a very large mechanical disadvantage and she has great difficulty elevating her arm.

When the scapula is stabilized, that is held firmly to the chest wall, she has approximately 160 degrees of forward flexion, 120 degrees of abduction, and good internal and external rotation. Without literally holding the scapula to the chest wall she gets a great deal of pain along the superior and medial aspect of the scapula as well as in the Iower portion of the scapular region.

Neurovascular examination of both upper extremities was normal.

IMPRESSION: By history, contusion of the right shoulder. Congenital winging of the scapula, right worse than left. Hypoplastic musculature. Failed surgical procedure.

DISCUSSION: I have had the opportunity to review a significant amount of medical records involving her care and treatment. These include records from the Fairview General Hospital, the Cleveland Clinic and Thomas Jefferson Medical Center. Records from physicians from the Cleveland Clinic including Dr. John Brems, and the diagnostic studies, including x-rays and EMG and nerve conduction studies were also reviewed.

After careful questioning of the patient's history and physical limitations, as well as after a careful physical examination and review of medical records, I have come to some conclusions concerning her ongoing level of physical impairment.

In my opinion, there is absolutely no indication of a long thoracic nerve injury. The chronic hypoplastic changes in the muscles, as well as the EMG findings of no acute neurological loss, confirms my initial suspicion. The winging of the scapula and the necessity for the shoulder stabilization, the failed shoulder stabilization were related solely to her pre-existing deformity. In my opinion she had a strain or sprain and a contusion of the shoulder which, by *history,* aggravated this deformity. There was a lengthy series of conversations concerning the necessity of an operation to stabilize the scapula. In that her physical function was so much improved when the scapula was

stabilized, the surgical procedure was considered. In my opinion, the need for this procedure was solely due to the pre-existing abnormality.

It was clear at the time of this evaluation that there was a very poor response to the surgical procedure. It was unknown whether the repair had "stretched out" or, in fact, had torn. Clearly there was poor stabilization of the scapula and very prominent winging. There was a slight winging on the left side as well.

Her level of pain was strictly related to her muscular dysfunction in the right shoulder. This, in my opinion, was a chronic injury. It is difficult to assess exactly how this shoulder was functioning prior to the car accident in question. It is clear, by the history, that the right shoulder symptoms have been persistent since that time. I have no clear orthopaedic explanation for a direct cause and effect relationship. The appearance of the chronic muscle abnormality would not have come from the motor vehicular accident in question. There may have been some subjective aggravation, but clearly no pre-existing condition was significantly documented other than by review of the diagnostic studies.

The long term prognosis is favorable for any soft tissue contusion or strain incurred. There is clearly a failure of the surgical procedure to stabilize the scapula. The exact mechanism of the failure is difficult to assess by both this physician and Dr. Brems. She should continue with physical therapy in order to keep the shoulder flexible and strong. It is doubtful that any further surgery will be of much benefit.

In summary, in my opinion, there is no objective evidence that there was any permanent aggravation of acceleration of her pre-existing scapulothoracic instability. By her history, this was made worse with the car accident, but there is no clear documentation of this. Clearly, there is a significant chronic abnormality which was the only pathology noted in the diagnostic workup at the Cleveland Clinic. She had an attempt at scapular stabilization which has failed. In my opinion, the necessity for this

surgery is only related to the accident by the patient's history. This surgery was solely for Increasing the stability of the scapulothoracic articulation of the **right** shoulder. The surgical procedure failed and the instability persists. In my opinion, this is a pre-existing condition. There is no objective evidence that this condition has worsened as a result of this accident other than by the history present.

Sincerely,

Robert C. Corn, M.D., F.A.C.S.

RCC/bn

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