



1957

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Recommended Citation

Harley J. McNeal, Whiplash - Defense Counsel's View, 6 Clev.-Marshall L. Rev. 38 (1957)

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"Whiplash"—Defense Counsel's View

Harley J. McNeal*

MANY WORDS have been spoken and written on the controversial subject of whiplash injuries of the cervical spine. However, no papers have been noted which discuss the problem from the viewpoint of the defense trial attorney.

The advance of medicine in the last ten years has brought about the use of words, terms and phrases by doctors, which are eye catching or attention arresting. From a defense standpoint, some of the medical phrases or words used by doctors today have devastating psychological effects upon jurors trying personal injury cases. The word "whiplash" is one of these "coined" words. "Ruptured disc" is another new term. Thus, while it is conceded that medical men are only trying to define particular injuries with preciseness, the constant use and repetition of such words or terms cause the average juror to regard these particular injuries as much more serious and disabling than is actually appropriate in the majority of cases. It is this "psychological hump" which defense counsel must overcome in defending personal injury cases involving such injuries.

Therefore, while the plaintiff through counsel seeks to expand and "blow-up" such an injury, the job of defense counsel is to "deflate" and play down such an injury.

First, the term "whiplash" is generally confined to describing injuries resulting to the head, neck and arms. Such injuries usually result from the collision of vehicles. In most cases, the injury is said to result from rear-end collisions, but the injury can and will occur in head-on collisions, or when forward movement is arrested suddenly, causing the head to forcibly move forward or backward and bringing about a corresponding wrenching or twisting movement of the neck. Thus, unnatural forces or stresses are brought to bear on the head, neck and shoulder areas resulting in compression fractures of one or more of the vertebrae of the neck, or causing injury to the intervertebral discs of the cervical vertebrae bringing about disabling

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and painful conditions in the shoulder or arms of the injured party. Such an injury can also bring about a dislocation or subluxation of the cervical vertebrae, requiring the use of traction to eliminate the chance of injury to the spinal cord with resulting paralysis. If none of the above described injuries result from such an accident, the injured party usually suffers from strained or sprained ligaments causing stiff neck, dizziness, nausea, headache, or blurred vision. The conditions described generally appear in about twenty-four hours, but there is some medical authority for the statement that the symptoms may not appear until a year after the accident alleged to have caused the injury. Naturally, since a wide variety of symptoms are attributable to this type of injury and because the time when the symptoms appears varies, this particular injury has become one of the most complex and controversial subjects in both medicine and law.

The area of the injury automatically causes apprehension. "Broken neck," "Paralyzed," "Death."—These words immediately flash before the injured party, causing a psychological block making rapid recovery impossible, because of the reluctance of the party to use the injured area when medically permissible so as to reduce the length of disability usually attributed to this kind of injury.

It is against such symptoms attributable to the injury that the defense trial attorney must contest, in an effort to persuade the jury to examine the injury proof carefully and analytically, in order that they may reach a proper conclusion, consistent with reasonable medical certainty, concerning the nature and extent of the injury and alleged disability.

Consideration must be given to the weight of the head of the injured party. The weight of the human head varies from six to eleven pounds. A "heavy" head conceivably could cause more injury than a "light" head. Then, the physical appearance of the party needs scrutiny. The person with a long, thin neck as opposed to the person with a short, thick neck will suffer more injury because of these physical characteristics. Thus, a "heavy" head on a long, thin neck portends serious injury, whereas the "light" head set on a thick, short neck probably will not cause serious or extended injury or disability.

Also, women are more prone to suffer longer from such an injury than are men, because of their neck structure and relatively weak supporting muscles and ligaments.

Next, the astute attorney will want information about the vehicles involved in the accident, relative to size, weight and type, so as to apply the laws of physics to the accident in determining whether the force would be relatively light or heavy. Much attention should be given to the distance the vehicle or vehicles moved after impact. Speed and physical damage also must be given consideration in presenting to the jury all the evidence as to the seriousness of the injury. Another significant point for inquiry is whether the vehicle being struck was contacted when the brakes were applied or not. Less injury is experienced when the contact occurs with the brakes applied, than when contact happens with the brakes not applied. Also, if the contacted vehicle was moving when struck from the rear, the resulting injury will be much less serious than when the vehicle was standing still. Of course, head-on collisions, with both vehicles moving in opposite directions and transmitting forces which are opposed, usually cause the most serious injuries.

Even though there is evidence of the injury resulting from an automobile collision or a similar accident, the defense counsel must be careful to investigate the prior activities of the complaining party. The claimed injury could result from body infections, such as an abscess or rheumatoid arthritis, as well as from an accident in the home or while engaging in some athletic endeavor. Thus, a searching inquiry of prior activities could well result in defense counsel being able to prove that the accident had nothing to do with the injury about which the action was initiated. Antecedent infections render the tissues of the neck more pliable, so that a dislocation may occur more readily. Also, pathological or congenital bone conditions may complicate or permit dislocations of the cervical vertebrae.

Consideration of x-rays is of great importance to both the physician and the lawyer in diagnosing this type of injury. In some instances, the x-ray will not demonstrate anything of significance relative to the cervical region. But, the absence of any abnormal condition in the x-ray should not be cause for the conclusion that no injury has been sustained, based solely on x-ray evidence. In other cases, the x-ray will reveal a straightening of the cervical vertebrae, or a reversal of the normal curve of the spine in the neck region. Normally, the head is carried in a slightly backward curve in relation to the cervical spine, but with injury to the neck muscles resulting in muscle spasm, the muscles prevent the normal cervical curve from appearing on

the x-ray. The x-ray may also reveal narrowing of the intervertebral disc spaces, usually at the 5th cervical vertebra level through the first thoracic vertebra. Damage usually is seen at the C5 level, because it is the point which controls most of the movement of the head and neck and is therefore most vulnerable in this type of injury.

X-rays taken some months after this kind of accident might also demonstrate arthritic changes of the spine, which well might prove an aggravation of a pre-existing quiescent degenerative osteoarthritis.

Of course, on the defense side, counsel would argue that evidence of a narrowing of the disc spaces and of arthritis of the cervical spine is merely the result of the individual growing old, unrelated to the accident in issue, since these conditions can come about as a result of degeneration unrelated to trauma.

Two well known doctors, J. W. Birsner and W. H. Leask of California, have developed significant x-ray techniques demonstrating positive x-ray findings of injury due to a whiplash incident. These x-rays show that in some instances (25% approximately) there is evidence of hemorrhage and swelling of the ligaments of the neck. This appears on the particular x-ray as a swelling of the retropharyngeal area. Birsner and Leask argue that serial x-rays will prove the extent of disability one can expect from this kind of injury. The absence of evidence of this swelling on x-ray should indicate that the accident is not the causative agent; and should alert counsel to delve into the plaintiff's prior history in order to uncover the occurrence of earlier accidents or illnesses which could cause the complaints of injury.

Other x-ray techniques may reveal dislocations or fractures of the vertebrae which are often overlooked with usual x-ray procedures. These specialized techniques consist of taking x-rays while the patient is in traction and also the taking of planograms. Myelograms taken after the injection of an opaque substance known as pantopaque into the spinal fluid in the cervical area, and then x-raying this area to follow the course of the opaque substance, are useful in proving a rupture of a cervical disc. However, a negative myelogram does not rule out the fact that a rupture of the disc has happened as a result of the accident.

As a result of more attention being given to the improving of x-ray procedures, significant information is being obtained about this kind of injury, enabling counsel on both sides either

to prove or disprove the accident in question as being the cause of the complaints of injury.

A new procedure known as the electromyograph is beginning to make its mark as a diagnostic aid in confirming or disproving whiplash injuries. The electromyograph demonstrates that normal muscle is passive electrically, while a nerve injury causes abnormal movements of the muscle supplied by the injured nerve. These movements of the muscle can be recorded by means of electrodes and can be seen on a cathode ray in the form of characteristic waves, as well as giving off a high pitched clicking sound. Thus, the electromyograph can locate the particular injured nerve, thereby indicating the presence of injury due to a whiplash of the cervical spine.

An examination of the injured party is also of extreme importance, as well as the obtaining of an accurate history. Even at the history taking level there seems to be some dispute among doctors relative to the mechanics of the initial cause of injury. At first, a few physicians were certain that the neck was flexed (moved forward) and then caused to be extended (moved backward), causing the whiplash action. However, today most doctors are agreed that when collision occurs from the rear, the head and neck are thrown backward first, and then, are propelled forward rapidly causing extreme strain upon the bones of the neck, as well as the muscles, ligaments and nerves in the neck area. These unexpected movements cause the injured party to experience pain and stiffness in the neck from one to seven days after the accident, with headache and a complaint of pain behind the eyes. The area of pain spreads from the neck to one or both shoulders in the region of the trapezius muscles. Within a few days, or even at a much later date after the accident, the injured party may complain of a pain radiating from the trapezius into an arm and fingers with accompanying numbness and disability. The physical examination reveals limitation of ability to turn the head from left to right and right to left; and there is muscle spasm and swelling of the muscles of the neck, causing the patient to carry the head slightly forward. There is also evidence of tension and anxiety present in some cases. Further, there is a complaint of pain after long automobile rides, ironing or desk work, with the statement that the pain is increasingly severe at night.

Disability results not only from muscle and ligamentous injury, but also from injuries to the cervical nerve roots and

brachial plexus. The vertebrae of the cervical area have foramina (openings) which are long vertically and short horizontally. It is through these openings that the cervical nerves emerge and are subjected to pressure from back to front, in a whiplash accident.

Headaches are the result of injury to the occipital nerves (located at the back of the head) due to the pull on these nerves as a result of the head being thrown forward after being thrown backward.

Pain and numbness in the shoulder, arm and particular fingers of the hand are usually due to injuries to cervical nerve roots, or to injuries to the ulnar, median, or radial nerves. Usually the fingers affected are those served by the ulnar nerve, namely the little finger and one-half of the ring finger, together with an area about the wrist and in the palm of the hand. In fact, if the injured party claims of numbness of the entire arm, hand and all fingers, one must view this claim with suspicion, due to the distribution of nerves to these parts. To further test the honesty of the injured party, examining doctors sometimes seat the patient and engage him in conversation, while moving to a position behind the patient, so as to require a movement of the head by the patient in answering questions put to him. The malingerer will move and turn his head with ease, whereas the honest patient will indicate extreme difficulty in turning his head. The absence of muscle spasm also makes detection of a malingerer simple for an experienced examiner.

The questions raised about care and treatment of a whiplash case have also caused much argument in the last several years. Formerly, it was urged that early use of traction would cut down the disability period, as would the use of a Thomas collar over a long period. Today, however, traction is not recommended except where there is proof of dislocation or partial dislocation. It has been learned that traction causes further aggravation and injury to the facet joint ligaments and other ligaments of the neck which have already been injured. Also, traction tends to cause recurrent partial dislocations of the neck if used extensively. While Thomas collars are recommended for immobility and healing directly after an accident, prolonged use is believed to cause fibrositis of the ligaments of the neck.

After healing of the ligaments of the neck, passive stretching exercises are recommended to free the ligamentous contractions caused by the injury to the neck. Excessive manipulation

of the neck should be guarded against in all cases in order to prevent aggravation of this type of injury.

From what has been said here, it is easy to understand the difficulties confronting defense counsel in undertaking the defense of a rear-end collision case where a whiplash injury is alleged. However, due to the extreme interest in this kind of injury by doctors, engineers and safety experts, helpful information useful in defending such cases is being advanced.

For the defense, the non-traumatic causes of neck disability must first be considered. Information which can be helpful in uncovering leads to prove that the condition alleged is not related to the accident can be obtained by a careful and painstaking cross-examination of the plaintiff by deposition. Then, a thorough check of the plaintiff's activities and work habits prior to and after the accident should be made, and information should be obtained from outside sources relative to illnesses and hospital confinements. The conditions causing disability in the neck region not related to accident may be enumerated as: (1) degenerative arthritis, (2) infections, (3) degenerative ruptured disc, (4) congenital anatomical deviations, (5) scalenus syndrome due to cervical rib, and (6) fibrositis.

Dr. Bechtol of Yale University Medical School has argued that since the vertebrae of the neck are supported by ligaments and muscles, as well as being insulated by intervertebral discs, the neck is flexible, and as a result of this flexibility withstands serious or permanent injury as a result of a whiplash accident.

Additional support for Dr. Bechtol's conclusion is gained since there is usually no period of unconsciousness as a result of such an accident, and because the party gets out of the vehicle immediately, and is ambulatory and lucid in discussing the accident. Further, in most instances, the party involved drives his car from the scene of the accident and does not seek medical attention until a day or week after such an accident, if at all.

In the majority of cases, disability lasts but a few months and relief is obtained from aspirin, heat and mild massage. Generally, the majority of whiplash injury cases go on to complete recovery, since there usually is no evidence of a tearing of the muscles or ligaments of the neck. If there is a tearing or serious injury to the ligaments and muscles, the injured party would probably experience pain and stiffness in the neck within a few minutes after the accident.

Dr. Bechtol also says that the prolongation of symptoms in some cases may be due to litigation and the conscious or unconscious exaggeration of the severity of the symptoms by the litigant or injured party.

It is hoped what has been said here can be used to advantage by both counsel for plaintiff and counsel for the defendant in achieving justice in any given whiplash accident case.

It is only by means of complete and full exchange of medical and legal information in matters involving the field of medical-legal problems that advances are made which will better serve all parties involved in controversial subjects such as that written about here.

Thus, if what has been written stimulates and encourages discussion on the subject, our purpose has been achieved and the medical and legal professions may reap benefits which in turn can be transmitted to the litigants involved in our courts, so that justice between the parties will prevail.

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