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GEORGE WINGFIELD, APPELLANT, V. HILL BROTHERS TRANSPORTATION, INC., APPELLEE.

846 N.W.2d 617

Filed May 16, 2014. No. S-13-716.

1. **Workers' Compensation: Appeal and Error.** Pursuant to Neb. Rev. Stat. § 48-185 (Cum. Supp. 2012), an appellate court may modify, reverse, or set aside a Workers' Compensation Court decision only when (1) the compensation court acted without or in excess of its powers; (2) the judgment, order, or award was procured by fraud; (3) there is not sufficient competent evidence in the record to warrant the making of the order, judgment, or award; or (4) the findings of fact by the compensation court did not support the order or award.
2. ____: ____. An appellate court is obligated in workers' compensation cases to make its own determinations as to questions of law.
3. ____: ____. The issue in regard to causation of an injury or disability is one for determination by the fact finder, whose findings will not be set aside unless clearly wrong.
4. **Workers' Compensation.** In workers' compensation cases, the heart injury causation issue consists of two elements: (1) legal causation and (2) medical causation.
5. **Workers' Compensation: Proof.** When a preexisting disease or condition is present, the Nebraska Supreme Court has adopted the following test for legal causation: An exertion- or stress-caused heart injury to which the claimant's preexisting heart disease or condition contributes is compensable only if the claimant shows that the exertion or stress encountered during employment is greater than that experienced during the ordinary nonemployment life of the employee or any other person.
6. ____: ____. If it is claimed that an injury was the result of stress or exertion in the employment, medical causation is established by a showing by a preponderance of the evidence that the employment contributed in some material and substantial degree to cause the injury.
7. ____: ____. In a workers' compensation case involving a preexisting condition, the claimant must prove by a preponderance of evidence that the claimed injury or disability was caused by the claimant's employment and is not merely the progression of a condition present before the employment-related incident alleged as the cause of the disability.
8. **Workers' Compensation.** A claimant in a workers' compensation case involving a preexisting condition may recover when an injury, arising out of and in the course of employment, combines with a preexisting condition to produce disability, notwithstanding that in the absence of the preexisting condition, no disability would have resulted.
9. ____. When a workers' compensation claimant has suffered a heart attack, the foremost and essential problem is causation, that is, whether the employment caused an employee's injury or death from a heart attack.

10. ____. The single judge of the Workers' Compensation Court is the sole judge of the credibility of the witnesses and the weight to be given their testimony, even where the issue is not one of live testimonial credibility.

Appeal from the Workers' Compensation Court: JOHN R. HOFFERT, Judge. Affirmed.

Stacy L. Morris, of Lamson, Dugan & Murray, L.L.P., for appellant.

Caroline M. Westerhold, of Baylor, Evnen, Curtiss, Grimit & Witt, L.L.P., for appellee.

HEAVICAN, C.J., WRIGHT, CONNOLLY, STEPHAN, MCCORMACK, MILLER-LERMAN, and CASSEL, JJ.

CASSEL, J.

INTRODUCTION

This case requires us to decide whether the causation standard applicable to workers' compensation claims involving injury from heart attack was properly extended to an episode of deep vein thrombosis and pulmonary embolism. In heart attack cases, a claimant is required to prove both legal and medical causation. The compensation court applied this split test of causation and dismissed for failure to establish the medical cause prong. The split test arises from the difficulties in attributing the cause of a heart attack to the claimant's work. Because deep vein thrombosis and pulmonary embolism present these same difficulties and are similar in origin to a heart attack, we conclude that the split test was properly applied to the claimant's injuries in this case.

BACKGROUND

George Wingfield appeals from the dismissal of his claim for workers' compensation benefits. Wingfield filed a workers' compensation claim on January 30, 2012, alleging that he sustained personal injuries in the form of deep vein thrombosis and pulmonary embolism in an accident that occurred on February 26, 2010. In his petition, he alleged that his injuries arose out of the course and scope of his employment with

Hill Brothers Transportation, Inc. (Hill Brothers), as an over-the-road truckdriver.

As a truckdriver, Wingfield was normally required to work 10 hours per day and would be seated during that time period. The compensation court received evidence that prolonged sitting is a risk factor for the development of deep vein thrombosis, or a blood clot forming in the deep venous system. Wingfield had been a truckdriver for approximately 35 years. However, he had been employed by Hill Brothers for only approximately 1 month before the February 26, 2010, accident.

On the evening of February 25, 2010, Wingfield parked his truck in Grand Island, Nebraska, and went to bed. He felt fine that evening but awoke the next morning not feeling well. He left Grand Island around 1 or 2 p.m. on February 26 and notified Hill Brothers' dispatch that he was not feeling well and was "headed home for days off."

As the day went on, Wingfield developed chest pains and contacted his doctor. A nurse told him to come to his doctor's office as quickly as possible. Wingfield arrived at his doctor's office and was then hospitalized. He was diagnosed with deep vein thrombosis in his left leg, and although it was unconfirmed, the presence of a pulmonary embolism was deemed likely.

The compensation court received evidence that a pulmonary embolism usually arises from deep vein thrombosis. When a blood clot in the deep venous system breaks off, it may travel through the heart and enter the pulmonary system. A pulmonary embolism occurs when the blood clot reaches a point within the artery of the lung where it can no longer pass through and so becomes lodged. Depending upon the size of the clot and whether it compromises the blood supply into the lung, a pulmonary embolism can be fatal.

After the February 26, 2010, accident, Wingfield had a filter implanted to prevent future pulmonary embolisms. He also experienced pain in his legs, swelling in his legs and feet, blood clots behind his knees, leg sores, shortness of breath, and difficulty standing and sitting for long periods of time. Although he returned to his employment with Hill Brothers,

he needed to take more frequent breaks to walk around and exercise. He quit working for Hill Brothers when he injured his lower back in a fall from his truck in October 2010.

Although Wingfield alleged that he developed deep vein thrombosis and pulmonary embolism as a result of the February 26, 2010, accident, that episode was not Wingfield's first diagnosis of those conditions. Wingfield had been hospitalized for the same conditions on two prior occasions before starting his employment with Hill Brothers. The first episode occurred in September 2005. As a result of that episode, Wingfield filed a workers' compensation claim in Missouri, claiming that he was "[d]riving a truck and developed deep vein thrombosis and pulmonary embolism." This claim is ongoing.

Wingfield's second episode of deep vein thrombosis and pulmonary embolism occurred on December 31, 2009, approximately 1 month before he began his employment with Hill Brothers. On that day, Wingfield saw his doctor and complained of shooting pain in his sternal area, shortness of breath, and pain in his legs and behind his left knee. He was hospitalized and diagnosed with deep vein thrombosis in his left lower extremity and "bilateral pulmonary emboli" in his pulmonary arteries. As a result of these prior episodes of deep vein thrombosis and pulmonary embolism, Wingfield was prescribed lifetime or long-term use of anticoagulation medication to prevent the formation of future blood clots.

The compensation court dismissed Wingfield's claim for benefits with respect to the February 26, 2010, accident. In doing so, the court noted that Wingfield's prior episodes of deep vein thrombosis and pulmonary embolism required it to consider the appropriate level of proof necessary to establish that his injuries arose out of his employment with Hill Brothers. For guidance, the court looked to *Leitz v. Roberts Dairy*,[1] in which we indicated that causation in heart attack cases requires proof of both legal and medical causation. The court applied this split test of causation to Wingfield's claim, finding that "the distinction between the movement of a blood clot (prompted by prolonged sitting at work) through

[1] *Leitz v. Roberts Dairy*, 237 Neb. 235, 465 N.W.2d 601 (1991).

a vein leading to the lung (pulmonary embolism) and a clot . . . flowing through an artery to the heart (heart attack) is less than clear."

After applying the split causation test, the compensation court concluded that Wingfield had failed to prove medical causation—that the employment contributed in some material and substantial degree to cause the injury.[2] In support of its conclusion, the court relied upon the opinion of Dr. Michael Del Core, who was retained to review the medical records in this case. Del Core concluded that Wingfield was "not adequately anticoagulated" at the time of his admission to the hospital on February 26, 2010. His anticoagulation medication was at a nontherapeutic level and was consistent with a person who was not taking any type of anticoagulation medication. Thus, Del Core concluded that the "February 26 episode of pulmonary emboli was not specifically work related but rather a combination of multiple risk factors, most importantly, inadequate anticoagulation at the time of admission."

The compensation court found Del Core's opinion to be persuasive and, thus, concluded that Wingfield had failed to establish that his employment with Hill Brothers caused the February 26, 2010, accident. It therefore dismissed Wingfield's claim. Wingfield timely appealed, and we moved the case to our docket pursuant to statutory authority.[3]

ASSIGNMENTS OF ERROR

Wingfield assigns that the compensation court erred in (1) applying the causation standard used in heart attack cases; (2) finding that his injury did not arise out of the course and scope of his employment with Hill Brothers; (3) sustaining Hill Brothers' objection to exhibits regarding medical bills and mileage reimbursement requests; and (4) failing to calculate his average weekly wage and award temporary total disability benefits, permanent total disability benefits, past medical bills, future medical expenses, penalties, attorney fees, and interest.

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[2] See *id.*

[3] See Neb. Rev. Stat. § 24-1106(3) (Reissue 2008).

STANDARD OF REVIEW

[1] Pursuant to Neb. Rev. Stat. § 48-185 (Cum. Supp. 2012), an appellate court may modify, reverse, or set aside a Workers' Compensation Court decision only when (1) the compensation court acted without or in excess of its powers; (2) the judgment, order, or award was procured by fraud; (3) there is not sufficient competent evidence in the record to warrant the making of the order, judgment, or award; or (4) the findings of fact by the compensation court did not support the order or award.[4]

[2,3] An appellate court is obligated in workers' compensation cases to make its own determinations as to questions of law.[5] The issue in regard to causation of an injury or disability is one for determination by the fact finder, whose findings will not be set aside unless clearly wrong.[6]

ANALYSIS

We first address Wingfield's assertion that the compensation court erred in applying the split test of causation to his injuries of deep vein thrombosis and pulmonary embolism. We then turn to whether the court erred in finding that his injuries did not arise out of the course and scope of his employment with Hill Brothers. Because these two issues control the disposition of Wingfield's remaining assignments of error, they comprise the majority of our analysis.

Causation

We first note that the record clearly establishes that Wingfield had a preexisting condition of deep vein thrombosis prior to his employment with Hill Brothers. We must therefore determine the proper causation standard applicable to his February 26, 2010, episode of deep vein thrombosis and pulmonary embolism. The compensation court applied the split causation test applicable to a claimant with a preexisting

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[4] *Stueve v. Valmont Indus.*, 277 Neb. 292, 761 N.W.2d 544 (2009).

[5] *Id.*

[6] *Way v. Hendricks Sodding & Landscaping, Inc.*, 236 Neb. 519, 462 N.W.2d 99 (1990).

condition in a heart attack case. But Wingfield contends that the court should have applied the causation standard applicable to a claimant with a preexisting condition in a case not involving heart attack.

[4-6] As noted above, in heart attack cases, the heart injury causation issue consists of two elements: (1) legal causation and (2) medical causation.[7] When a preexisting disease or condition is present, we have adopted the following test for legal causation: An exertion- or stress-caused heart injury to which the claimant's preexisting heart disease or condition contributes is compensable only if the claimant shows that the exertion or stress encountered during employment is greater than that experienced during the ordinary nonemployment life of the employee or any other person.[8] If it is claimed that an injury was the result of stress or exertion in the employment, medical causation is established by a showing by a preponderance of the evidence that the employment contributed in some material and substantial degree to cause the injury.[9]

[7,8] But in compensation cases not involving injury from heart attack, a claimant with a preexisting condition must prove by a preponderance of evidence that the claimed injury or disability was caused by the claimant's employment and is not merely the progression of a condition present before the employment-related incident alleged as the cause of the disability.[10] Such claimant may recover when an injury, arising out of and in the course of employment, combines with a preexisting condition to produce disability, notwithstanding that in the absence of the preexisting condition, no disability would have resulted.[11]

[9] In determining the proper causation standard applicable to Wingfield's injuries, we review the rationale for the

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[7] See *Zessin v. Shanahan Mechanical & Elec.*, 251 Neb. 651, 558 N.W.2d 564 (1997).

[8] *Id.*

[9] *Id.*

[10] See *Swanson v. Park Place Automotive*, 267 Neb. 133, 672 N.W.2d 405 (2003).

[11] *Id.*

development of the split causation test in heart attack cases for guidance. When a workers' compensation claimant has suffered a heart attack, the foremost and essential problem is causation, that is, whether the employment caused an employee's injury or death from a heart attack.[12] This is because the generalized nature of heart attack cases makes it difficult to attribute the attack to the work.[13] But disability or death from heart attack is not compensable unless the injury or death arose out of the employment.[14] Thus, the question to be determined is whether the injury was the result of a personal rather than an employment risk.[15] The split test of causation helps to resolve this question. Through the separation of legal and medical causation, it is possible to compensate those heart attack victims whose work placed a greater strain on their hearts than would ordinary nonemployment life.[16]

Under the legal test, the claimant must establish that the proximate cause of the heart attack was work related and thereby break any causal connection between the natural progression of a preexisting condition or disease and the injury at the workplace.[17] Otherwise, the fact that the heart injury occurred at work would be strictly fortuitous.[18] Under the medical test, "the doctors must say whether the exertion (having been held legally sufficient to support compensation) in fact caused this collapse."[19] The medical test establishes whether the exertion contributed causally to the collapse as a matter of medical fact.[20]

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[12] *Zessin, supra* note 7.

[13] *Morton v. Hunt Transp.*, 240 Neb. 63, 480 N.W.2d 217 (1992).

[14] See *Sellens v. Allen Products Co., Inc.*, 206 Neb. 506, 293 N.W.2d 415 (1980).

[15] *Id.*

[16] *Morton, supra* note 13.

[17] See *Leitz, supra* note 1.

[18] *Id.*

[19] 2 Arthur Larson & Lex K. Larson, Larson's Workers' Compensation Law § 46.03[1] at 46-6 (2013).

[20] *Id.*, § 46.03[8].

The above review reveals that the split test of causation developed as a result of the difficulties in distinguishing those injuries from heart attack that arose from a personal, rather than an employment, risk. But workers' compensation cases not involving heart attack do not present such difficulties in determining causation. That is why in *Engel v. Nebraska Methodist Hospital*,[21] we declined to extend the exertion "'greater than nonemployment life'" test to the claimant's back injury. In that case, we emphasized the unique problem of proving causation in heart attack cases and concluded that there was no reason to extend the rule to other cases where the proof of causation is not usually as complex.[22] We similarly declined to extend the split test of causation to the claimant's carpal tunnel syndrome in *Morton v. Hunt Transp*.[23] In *Morton*, we again reasoned that the claimant's injury shared none of the difficulties of etiology surrounding heart attacks and reaffirmed that the split test of causation has no application to injuries for which difficult issues of causation are not present.[24]

But we have not limited the split test of causation to injuries arising from heart attack. In *Smith v. Fremont Contract Carriers*,[25] we recognized that the split causation test was logically applicable to stroke cases. In doing so, we acknowledged the unique problem of proving causation of a heart attack when a preexisting condition is present and recognized that such a problem is also present when a claimant has suffered a stroke.[26]

We see the same problem of proving causation in Wingfield's injuries of deep vein thrombosis and pulmonary embolism. The compensation court received evidence that Wingfield's injuries

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[21] *Engel v. Nebraska Methodist Hospital*, 209 Neb. 878, 883, 312 N.W.2d 281, 285 (1981).

[22] See *id*.

[23] *Morton, supra* note 13.

[24] See *id*.

[25] *Smith v. Fremont Contract Carriers*, 218 Neb. 652, 358 N.W.2d 211 (1984).

[26] See *id*.

could have arisen from multiple causes, both personal and employment related. These causes included inadequate anticoagulation, obesity, trauma, surgery, heredity, prolonged sitting, and smoking. Thus, Wingfield's injuries are distinguishable from the claimants' injuries in *Engel* (back injury) and *Morton* (carpal tunnel syndrome) where it was clear that the injuries in those cases were precipitated by some employment-related risk or event.

The possible causes for Wingfield's development of deep vein thrombosis and pulmonary embolism demonstrate that his injuries were akin to the generalized nature of heart attacks, making it difficult to factually attribute his injuries to the work.[27] As in cases of heart attack or stroke, the compensation court was required to address complex issues of causation and to determine whether Wingfield's injuries arose from a personal or employment-related risk. We therefore find it logical that the court extended the split test of causation to Wingfield's injuries in this case.

In concluding that the compensation court did not err in applying the split test of causation to Wingfield's injuries, we also note the similarities in origin between his injuries and a heart attack. As the court observed, the significance of a blood clot forming in the deep venous system and causing pulmonary embolism, rather than a blood clot forming in an artery of the heart and causing heart attack, is less than clear. Common knowledge informs us that both conditions share many of the same risk factors. That a blood clot might develop in one part of the body rather than another does not strike us as warranting the application of two different standards of causation.

We also reject Wingfield's argument that the legal cause prong of the split causation test cannot be applied to his injuries. Wingfield argues that because his injuries were caused by inactivity, there is no stress or exertion by which to determine legal causation. But Wingfield's argument ignores that "stress" encompasses more than physical activity. Stress also includes "a physical, chemical, or emotional factor . . .

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[27] See *Morton, supra* note 13.

to which an individual fails to make a satisfactory adaptation, and which causes physiologic tensions that may be a contributory cause of disease."[28] We make no comment as to whether Wingfield's inactivity constitutes stress in this sense. We merely note that the lack of physical activity precipitating Wingfield's injuries does not render the legal cause prong inapplicable to his claim. This assignment of error is without merit.

Course and Scope of Employment

Wingfield assigns that the compensation court erred in finding that his injuries did not arise out of the course and scope of his employment with Hill Brothers. In support of this assigned error, he argues that the court ignored the fact that he passed a physical examination prior to beginning his employment with Hill Brothers, that the court erroneously made findings of fact with respect to the expert testimony offered by the parties, and that the court incorrectly relied upon the opinion of Del Core.

[10] We see no need to address Wingfield's specific arguments as to this assignment of error. The issue in regard to causation of an injury or disability is one for determination by the fact finder, whose findings will not be set aside unless clearly wrong.[29] The compensation court found that Wingfield had failed to establish the medical cause prong of the split causation test. Its determination was not clearly wrong. As we have noted, to establish medical causation, Wingfield was required to show that his employment contributed in some material and substantial degree to cause his injuries. But Del Core opined that the primary and most likely cause of the February 26, 2010, accident was Wingfield's inadequate level of anticoagulation—a factor independent of his employment with Hill Brothers. The court found this evidence to be persuasive, and it was entitled to do so. The single judge of the

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[28] Webster's Third New International Dictionary of the English Language, Unabridged 2260 (1993).

[29] *Way, supra* note 6.

Workers' Compensation Court is the sole judge of the credibility of the witnesses and the weight to be given their testimony, even where the issue is not one of live testimonial credibility.[30] This assigned error is without merit.

Remaining Assignments of Error

Wingfield's remaining assignments of error assert that the compensation court erred in (1) sustaining Hill Brothers' objection to exhibits regarding medical bills and mileage reimbursement requests and (2) failing to calculate his average weekly wage and award temporary total disability benefits, permanent total disability benefits, past medical bills, future medical expenses, penalties, attorney fees, and interest. Because the compensation court correctly found that Wingfield had failed to prove that his injuries arose out of the course and scope of his employment with Hill Brothers, it did not err in excluding evidence as to his expenses or in failing to award the requested relief. These assignments of error lack merit.

CONCLUSION

The split test of causation developed in the context of heart attack cases due to the difficulties in attributing the cause of a heart attack to the claimant's work. Because complex issues of causation were present in Wingfield's injuries, and the injuries could have arisen from personal or employment-related risks, we find no error in the application of the split causation test to this case. And because the compensation court's finding as to causation was not clearly wrong, we reject Wingfield's remaining assignments of error. The dismissal of Wingfield's claim is affirmed.

Affirmed.

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[30] See *Swanson, supra* note 10.