A Medicolegal Analysis of Worker Appeals for Fibromyalgia as a Compensable Condition Following Workplace Soft-tissue Injury

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ABSTRACT. ***Objective.*** Workplace injuries may be implicated in the causation of fibromyalgia (FM), hence linking FM to compensation. We examined the appeals by workers directed to an appeals tribunal for causation of FM following soft-tissue injury sustained in the workplace.

Methods. One hundred fifty tribunal decisions relevant to FM were examined using a predetermined protocol. New-onset FM was appealed in 123, and aggravation of preexisting FM in 15.

Results. All injuries were of a soft-tissue type, without persistent physical findings to explain continued symptoms. The tribunal accepted 67% of appeals for aggravation of FM, and 59% for new-onset FM. Time from injury to FM diagnosis was 4.3 ± 4.1 years, with 6.3 ± 2.8 physicians cited for each worker, and with previous health status not reported for 26%. Injuries were a single event in 68%, with location in low back for 44%, and shoulder/upper limb in 40%. The FM diagnosis was based on a rheumatologist report in 74%.

Conclusion. Over half of appeals for aggravation or causation of FM following a work-related soft-tissue injury were accepted by the tribunal, with importance ascribed to a rheumatologist diagnosis. Concerns are raised regarding lengthy duration from injury to diagnosis, claimants' high healthcare use, and neglect of mention of previous health status. The attribution of causation of FM to a soft-tissue workplace traumatic event is contentious and requires further examination. (J Rheumatol First Release Jan 15 2013; doi:10.3899/jrheum.121062)

Key Indexing Terms:
FIBROMYALGIA DISABILITY EVALUATION DISABLED PERSONS

Up to one-third of persons with fibromyalgia (FM) report that the onset of symptoms followed a specific event, physical or psychological, often described as traumatic[1]. FM, a condition of unknown cause characterized by pain, fatigue, sleep disturbance, and mood disorder, affects up to 2%–3% of the population and is most prevalent in middle-aged females, an age when many are in the workforce[2]. It has been shown that up to one-quarter of patients with FM may be receiving some form of disability payment, and that nearly half in another study reported loss of work due to FM[3,4]. The exact role of physical trauma in the causation of FM is contentious, especially in the workplace setting when issues of compensation arise.

Injury in the workplace may result in illness with permanent consequences. When FM is reported to have occurred following a traumatic event, an injury sustained in the workplace may be cited as a factor in causation. In some instances, symptoms of FM may be reported to be sufficiently severe to cause functional impairment that interferes with employment status[5]. Therefore, workers seeking injury compensation may plead a work-related injury leading to the development of FM. It has previously been shown that FM can be successfully pled throughout Canada for various other reasons such as insurance compensation following a motor vehicle accident[6]. With regard to employment disability compensation, workers in the province of Ontario, Canada, receive coverage by the Workplace Safety and Insurance Board (WSIB). If a claim for a work-related injury with subsequent consequences to health is rejected, the worker may appeal the decision, which may eventually be heard by the Workplace Safety and Insurance Appeals Tribunal (WSIAT), an administrative tribunal that will render a final decision.

We have examined the decisions of the WSIAT pertaining to causation or aggravation of FM resulting from

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Dr. Fitzcharles has received consulting fees, speaking fees, and/or honoraria from Lilly, Janssen, Pfizer, and Purdue Pharma and has provided expert testimony regarding painful rheumatic conditions in court trials. Dr. Shir has received consulting fees, speaking fees, and/or honoraria from Astra-Zeneca, Janssen, Paladin, Pfizer, and Purdue Pharma.

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Accepted for publication November 21, 2012.

workplace soft-tissue injury over five and a half years, with particular attention to the type of injury, previous health status of the worker, and evidence used by the tribunal.

MATERIALS AND METHODS

Tribunal decisions were accessed from the WSIAT Website (www.wsiat.on.ca). All cases between June 1, 2006, and December 31, 2011, containing the word "fibromyalgia" were eligible for inclusion in the study. Tribunal hearings were for the appeal of cases that had been rejected by the WSIB, usually from its appeal branch. Our analysis is limited to WSIAT decisions as they are final and easily accessed online. Additionally, the WSIB data request office was unable to provide statistics on FM litigation at its level. Therefore, the only available evidence for analysis was the final WSIAT decision. A search protocol was established prior to data extraction and each tribunal decision was read by 2 authors, a rheumatologist (MAF) and a legal studies student (PSM).

Work-related injury compensation process. Workers in Ontario, Canada, who suffer a work-related injury may receive compensation from the WSIB dependent upon the medical condition. When an injury results in an identifiable abnormality or impairment of a body part, the worker is compensated according to the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, 3rd edition[7]. In the absence of body part impairment and with continued pain due to an undetected organic source arising from an injury, the worker could receive compensation according to the Chronic Pain Disability (CPD) policy. Chronic pain may be compensated when there is sufficient credible subjective and objective evidence to support the claim.

FM according to the CPD policy. A claim for compensation benefits for FM falls under the CPD policy. Characteristics identified by the WSIB for FM include diffuse pain of unknown etiology attributable to an undetected organic condition or psychogenic source, presence of tender points in predictable and symmetrical locations, and the association of fatigue and sleep disorders. Other than tender points, all aforementioned symptoms are usually seen in patients with other chronic pain conditions, thus the WSIB recognizes FM as a variant of chronic pain. The CPD policy is applied when the following 5 criteria are satisfied: there was a work-related injury; FM was caused by the injury; pain persisted 6 or more months beyond the usual healing time of the injury; the degree of pain was inconsistent with organic findings; the chronic pain impairs earning capacity. In the case of preexisting FM aggravated by a work-related injury, compensation is determined by an aggravation policy and is allowed until the worker returns to the pre-accident state.

Workers appeal process. Generally, a dispute will first be heard at the WSIB, which also has its own appeals branch. A final decision from the WSIB can be further appealed to the WSIAT. The WSIAT is a body independent from the WSIB and represents the final level of appeal available to both worker and employer for the resolution of a dispute. Each party can be represented.

The tribunal usually comprises one adjudicator, termed the vice-chair, who has a legal background and is not a healthcare professional. On occasion, the tribunal will be headed by a 3-person panel formed by a vice-chair as well as a member representative for workers and one for employers. The mandate of the tribunal is to fully evaluate a particular claim to reach a final decision on the precise matter under appeal. The tribunal may request document review and recommendations from an expert healthcare professional in the evaluation of an individual case. A medical discussion paper, "Fibromyalgia Syndrome," prepared by a rheumatologist in 2003 and reviewed in 2010 by an internal medicine specialist, summarizes the medical evidence for FM and can be used by the tribunal for reference purposes[8]. The tribunal is not bound by any previous decisions, functions as an investigative rather than inquisitional body, and strives to achieve a fair and balanced decision.

Data collection. Data were extracted independently by 2 authors (MAF and PSM) according to a predetermined protocol. All data were cross-checked and discrepancies were resolved by consensus. Information collected, when available, included demographic data for the worker, previous health status, occupation type, and report of repetitive physical activity. The type of injury and time from injury to diagnosis of FM were recorded. Information concerning the diagnosis of FM included the following: type of clinician making the diagnosis, number of physicians cited, evidence used to confirm a diagnosis of FM, and other medical conditions identified after the injury.

Decisions were examined for the tribunal's use of an expert, identified as the "board consultant," as well as consultation and reference to the "Fibromyalgia Syndrome" discussion paper. The final decision of the tribunal was recorded as an appeal that was accepted or denied. The study rheumatologist (MAF), who has medicolegal experience as an arbitrator and an expert witness both for the plaintiffs and for the defense, made a subjective assessment of the tribunal decision to allow or deny compensation, having read each decision, but having access only to the information available in the public domain in the form of the written decision published by the tribunal.

RESULTS

During the study period, a total of 17,735 appeals were heard by the WSIAT. Of these, 151 appeals were identified using the search term "fibromyalgia." One decision was published after the analysis was complete and is therefore not included. Four decisions were excluded as the issues pertaining to FM were not central to the appeal. One hundred forty-six decisions, all having been appeals brought forward by the worker, were examined. Of these, 8 had already been accepted by the WSIB and awarded entitlement for FM. As these decisions were examining strictly the issue of increasing the compensation award, 3 of which were allowed and 5 rejected, they were not included in this analysis. Of the remaining 138 decisions, 123 were for new-onset FM and 15 were for aggravation of preexisting FM. Eighty-three (60%) appeals for either new onset of FM or aggravation of FM were allowed.

Aggravation. As aggravation of a preexisting condition has particular implications regarding causality, this small group was analyzed separately. Of the 15 workers who pleaded an aggravation of FM by a workplace injury, 14 were female (with a mean age of 50 ± 8 years), 5 were manual workers, 3 were clerical workers, and 7 were working in healthcare or education. Thirteen injuries were recorded as an acute event and 2 were of gradual onset. The location of the injury was low back or neck for 13 workers. Ten (67%) of the appeals for aggravation of FM were accepted and 5 were denied.

New-onset FM. Demographic information, work-related information, background medical history, and type of injury for the 123 new-onset FM appeals are shown in Table 1. This group comprised 85% women, and the mean age was 52 ± 9 years; 60 were manual workers, 29 were clerical workers, 30 were working in healthcare or education, and 4 occupations were unknown. Thirty-two percent of the jobs were categorized as repetitive. The timing from injury to the diagnosis of FM, available for 117 cases, was recorded as a mean of 4.3 ± 4.1 years and the number of physicians cited

Table 1. Analysis of 123 new-onset fibromyalgia (FM) appeals.

Characteristic	
Female, n (%)	104 (85)
Male, n (%)	19 (15)
Age, yrs, mean SD	52 ± 9
Occupation, n (%)	
Manual labor	60 (49)
Clerical	29 (24)
Health or education	30 (24)
Not mentioned	4 (3)
Repetitive activity, n (%)	42 (34)
Injury, n (%)	
Single	83 (67)
Gradual	40 (33)
Location of injury (not exclusive), n (%)	
Upper limb	68 (55)
Hand symptoms	30 (24)
Shoulder symptoms	33 (27)
Lower limb	18 (15)
Head	11 (9)
Neck	34 (28)
Back	55 (45)
Previous health status, n (%)	
Other medical illness	20 (16)
Psychological illness	21 (17)
Injury (ies)	27 (22)
Neck pain	12 (10)
Back pain	16 (13)
Not mentioned	32 (26)
Diagnosis of FM	
Years since injury, mean SD	4 ± 4
Clinician(s) making the diagnosis, n (%)	
Rheumatologist	91 (74)
Family physician	16 (13)
Other specialist	30 (24)
Tribunal consultation, n (%)	
Board consultant	73 (59)
Expert discussion paper	49 (40)

for each worker was 6.3 ± 2.7. In 26% of cases, there was no statement of previous health status. When the medical history was reported, psychological illness, previous injuries, neck pain, or back pain were recorded as present for 17%, 22%, 10%, and 13%, respectively.

All injuries were of a soft-tissue type, without any persistent physical effects that could explain the continued symptoms. The injury was reported as a single event in 67% and as gradual onset mostly related to repetitive work activity in the remaining 33%. The most common location of injury was the upper limbs, for 55% of the claimants, followed by the back for 45%, and the neck for 28%. Fifty percent of the whole group were already receiving some award for a previous injury or for the injury stated as having caused FM, and therefore were trying to obtain a more favorable award through FM compensation. Of the 123 new-onset FM appeals, 73 (59%) were allowed.

The evidence for the diagnosis of FM was based on a rheumatologist report in 74% of the appeals, with only 13% based on the assessment of a family physician. The board sought the advice of a board consultant for 73 (59%) of the appeals. The report of the board consultant was rejected by the tribunal for 19 (15%) of the appeals. The discussion paper "Fibromyalgia Syndrome" was cited for 49 (40%) appeals.

When the decisions were analyzed according to the year of decision, there was no difference in the number of appeals that were accepted each year. Throughout the study period the acceptance rate for appeals was in the order of 60% (data not shown).

Rheumatologist opinion. The study rheumatologist (MAF) agreed with the tribunal decision for 94/123 (77%) appeals that addressed new-onset FM. There was agreement between the tribunal decision and the rheumatologist for 47 (64%) decisions in favor of the worker and for 48 (94%) cases that were denied. For the aggravation cases, the study rheumatologist (MAF) agreed with all 15 (100%) of the tribunal decisions.

DISCUSSION

Sixty percent of workers in our study who appealed previous negative decisions for compensation received awards for a work-related injury either causing FM or aggravating preexisting FM, with the latter more successful. Injuries causing FM in this study were all the soft-tissue type, with almost half reporting low back injury and 40% upper limb or upper body injury, without any objective physical or pathological process. The injuries were described as a single event in over two-thirds of the appeals. After reading the decisions in full, the study rheumatologist (MAF) agreed with the tribunal decision in almost 80% of cases, with greatest concordance for negative decisions. This finding is both surprising and reassuring that even with the differences applicable to medical versus legal evaluation, agreement was generally consistent.

While the cause of FM is unknown, the current hypothesis acknowledges numerous interacting factors such as a genetic background, fragile psychological status, previous pain experience, and possible triggering factors, with up to one-third of patients reporting being well before an event[1,9,10,11,12]. Most reports addressing a triggering event are reliant on retrospective information, with increasing evidence of a predisposition for an "at-risk" phenotype. Two studies from the United Kingdom have linked motor vehicle accidents, but not workplace injuries, with onset of diffuse pain, with poorer general health and psychological status in the pre-accident phase recorded as important predisposing factors[13,14]. Psychosocial factors and monotonous work were also the strongest predictors of body pain in a 2-year prospective study of new employees[15]. Therefore, reports relating injury to causation in FM, mostly following whiplash injury, both support and refute the association of localized injury and diffuse pain[16,17,18].

Similarly, as back pain is a common phenomenon, with point prevalence of 1 in 5 in population surveys, attribution of the development of FM following a work-related back soft-tissue injury is contentious[19].

Causation as it applies in the legal context has considerable differences from that in the medical context. Medical causation requires rigorous scientific proof, often reliant on evidence from prospective epidemiological study, whereas a probability of > 50% is accepted as proof in the legal arena. Medicolegal proof is therefore less rigorous, and in this setting has assigned causality of FM using less rigorous criteria than would be used in the clinical setting. In reaching a decision, the tribunal evaluated medical records and reports from various healthcare professionals. Evidence from a medical report by a rheumatologist was cited for almost three-quarters of the appeals, emphasizing the weight assigned to a rheumatologist for diagnosis of FM. For only 13% of cases did the tribunal acknowledge the family physician's records or report regarding diagnosis or management of FM. This is disturbing, as continuity of care for patients with FM is in the primary care setting. Family physicians are now more familiar with FM, with advocacy that the best care for these patients should be in the primary care setting[20,21]. Assigning considerable weight to both diagnosis and attribution of cause to the specialist is therefore contrary to recommended medical practice.

The time lapse between an injury and the onset of FM is another unknown factor. It seems logical that to develop a pain sensitization, the initiating event and onset of the chronic pain condition should be closely temporally aligned. A prolonged interval between an event and the onset of FM is more difficult to reconcile, with an average delay of 4 years recorded in this study. The tribunal mostly did address temporality issues using the best available evidence. The decisions often stated that the date of diagnosis of FM was not necessarily contemporaneous with onset of symptoms, and did not fixate on a diagnostic date. As the tribunal attributed considerable weight to the specialist diagnosis of FM, the delay in definitive diagnosis may have reflected time waiting to see a specialist. Notwithstanding this delay in diagnosis, the workers in our study were generally high healthcare users and had either consulted or were managed by an average of 6 physicians for the current problem. FM patients are known to be high healthcare users in general, and it is possible that in the setting of compensation following a work-related injury, this use will be even greater than for standard medical care[22].

Knowledge of preceding health status is vital when evaluating onset of FM and attributing causation. In 26% of the decisions no reference was made to the previous health status of the worker. While this does not mean the tribunal did not consider previous health in these decisions, the absence of any comment to this effect leaves the reader with the impression that it might have been overlooked. This is clearly an important consideration particularly when attribution of an injury, oftentimes seemingly trivial, is adjudicated for compensation. Preceding health status is also acknowledged in the legal world by the "thin skull doctrine" whereby an individual has a previous health status that predisposes to a greater risk for an adverse event.

The thoroughness of the tribunal evaluation is to be commended. Decisions published by the WSIAT do not conform to a specific standard template, but rather are written as a descriptive document by the vice-chair/panel. The document describes the worker's narrative report of health status and work-related injury, with further evidence to support a claim obtained by examination of medical records, medical reports, and at times the evaluation of the documentation by an expert physician. The decisions were clear and balanced without evidence of preconceived bias. From the medical perspective we can identify a number of areas that could be strengthened. This most particularly pertains to the importance of previous health status, which was often lacking. Additionally, the compensation process gives considerable weight to the specialist opinion, which was often a single consultation many years after the incident. Additionally, the decisions often referred to validating the diagnosis by the presence of "tender points," based on the discussion paper. Tender point examination is a physical finding that is controversial and open to bias, and has been discarded as diagnostic criteria in an individual patient, but seemingly carried considerable weight for the tribunal[23,24,25].

Almost half the workers in our study had previously received some award for a work-related injury, which could have been either a remote event or the soft-tissue injury presented as having caused FM. Therefore these workers were already familiar with the compensation system. In a system that allows for compensation for a work-related injury, it is understandable that FM may truly occur for some, but may also be used as a fraudulent diagnosis. Once issues of compensation and disability are present, causation becomes even more controversial. When neuropsychologists were surveyed, they reported that one-third of FM claimants may have been malingering and fraudulent[26]. Malingering in FM is difficult to identify. Effort testing of cognitive function in patients with FM has shown lack of effort in those seeking disability compensation compared to those with other rheumatic diseases or patients with FM who were not seeking disability compensation[27]. A diagnosis of FM is open to fraud as there is no objective test to confirm the diagnosis or judge severity of symptoms. It has also been demonstrated that the tender point examination, which is still being erroneously used to diagnose individual patients, can be faked and has been eliminated as a useful diagnostic tool[28]. Functional impairment can be reported to be severe and the healthcare professional is

reliant mostly on subjective report to make a statement regarding function. The uncertainty regarding the diagnosis and severity of FM will therefore be reflected in FM-related disputes arising as a result of a work injury. Le Page, *et al* reported that an adjudicator's perception of the reliability of the claimant has an effect on the award that is granted[6]. However, of greatest importance is the perception of the reliability of the medical experts called upon by the parties[6]. This may explain the high healthcare use by patients with FM who are seeking compensation.

A number of limitations must be acknowledged. When we analyzed the cases, the only available evidence was the final decision as written by the vice-chair. Therefore we may have more easily agreed with the final decisions because the vice-chair chooses what to include in the final written report, likely restricting the dissertation to evidence that supports the decision. Second, because all cases were not written by the same vice-chair, what is reported by one adjudicator may not be reported by another, causing style and report variations that may have influenced data extraction. Also, in that we consulted only decisions that were appealed, we may have analyzed only the most contentious cases rather than having a more general picture of how FM is perceived in the setting of work disability. Finally, disability benefits for work-related injuries are dealt with at the provincial level and therefore differ from one province to another, but we have considered only the Ontario experience.

In this audit of tribunal decisions for Workers' Compensation appeals based on causation or aggravation of FM following a soft-tissue injury in the workplace, over half the appeals were accepted. The adjudication process was fair and unbiased, with the tribunal reliant on the medical information that was available for an individual case, and guided by input from "expert advisors" as well as a status document prepared by a rheumatologist. Concerns are raised by the frequent omission of reference to previous health status, the long time interval between injury and final diagnosis of FM, and the reliance on a diagnosis of FM by a specialist, often occurring many years after the injury. From a medicolegal point of view, it is important to remember that the lone diagnosis of FM should not automatically allow for compensation. As FM presents differently in each individual patient, the functional impairment and the ability/inability to remain/return in the workforce is the true issue at hand. Physicians should therefore be clear with FM patients currently in the workforce that the diagnostic label of FM does not automatically equate to an inability to work. Finally, one cannot rule out that the diagnosis of FM, a condition characterized by subjective symptoms and without an objective confirmatory test, may be used dishonestly by some persons seeking compensation benefits. In this context, physicians should be vigilant when playing a role in secondary gain situations.

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