

Adjudication of fibromyalgia syndrome: Challenges in the medicolegal arena

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The medicolegal challenges surrounding fibromyalgia (FM) arise from the subjectivity of symptoms, causal attribution and reported symptoms sufficiently severe to cause disablement. In the present article, the authors have endeavoured to provide clarification of some current issues by referencing the current literature, including the 2012 Canadian Fibromyalgia Guidelines. While FM is accepted as a valid condition, its diagnosis is vulnerable to misuse due to the subjectivity of symptoms. Without a defining cause, a physical or psychological event may be alleged to trigger FM, but adjudication of causation must be prudent. Although some individuals may experience severe symptoms, the prevalent societal concept of disablement due to FM must be tempered with the knowledge that working contributes to psychosocial wellbeing. Evidence provided in the present report may assist the courts in reaching decisions concerning FM.

Key Words: *Disability; Fibromyalgia; Law*

Fibromyalgia (FM) remains a challenge for numerous stakeholders. Recognized as a polysymptomatic condition, with the major symptom being widespread pain, which is often accompanied by other symptoms such as fatigue, mood and sleep disturbance, FM has underpinnings as a neurophysiological derangement of pain processing, but with clinical diagnosis and care entirely reliant on the 'art of medicine' (1). Although assigning a diagnostic label of FM may be advantageous to the patient, focus should be aimed toward evaluation of symptom severity in an individual, knowing that patients are heterogeneous in presentation. Challenges to understanding FM and caring for patients are highlighted by the following: in the absence of a confirmatory diagnostic test and, with symptoms purely subjective, the reliability of the patient's self-report is critical; claimants may reasonably attribute an event as the trigger for FM, but reliability of the assertion should be validated; and disablement figures of 35% for FM in North America are extreme compared with other chronic illnesses (2,3).

In reaching a legal decision pertaining to illnesses, judges weigh the evidence brought forward by the parties, evaluate the credibility of the witnesses, assess the current scientific doctrine and apply an element of common sense (4). Thereafter, a legal decision is reached by application of a threshold test that may vary according to the jurisdiction and tribunal. Various threshold tests include the 'balance of probability', 'but for' test, and the material or substantial contribution test. Contrary to medical standards, whereby scientific precision is required, legal proof in the civil courts is reliant on probability (exceeding 50%). In the present article, we have used as a medicolegal example the decisions of an appeals tribunal concerning FM causation alleged to be a result of workplace injury, to identify common issues and challenges raised in the courts (5,6). We have also sought clarification from the current literature on the relevant issues.

Rendre un jugement sur le syndrome de fibromyalgie : des difficultés d'ordre médico-légal

Les difficultés d'ordre médico-légal entourant la fibromyalgie (FM) sont attribuables à la subjectivité des symptômes, à l'attribution causale et aux symptômes considérés comme assez graves pour provoquer une invalidité. Dans le présent article, les auteurs ont cherché à clarifier certains problèmes en se reportant aux publications à jour, y compris les *Lignes directrices canadiennes de 2012 pour la fibromyalgie*. La FM est une pathologie valide acceptée, mais son diagnostic peut être utilisé de manière abusive en raison de la subjectivité des symptômes. Puisqu'il n'y a pas de cause pour la définir, on peut présumer qu'un événement physique ou psychologique l'a déclenchée, mais il faut être prudent avant de se prononcer sur sa cause. Même si certaines personnes peuvent avoir des symptômes graves, il faut tempérer le concept sociétal prévalent d'invalidité causée par la FM, car on sait que le travail contribue au bien-être psychosocial. Les données probantes contenues dans le présent rapport pourraient aider les tribunaux à rendre des décisions au sujet de la FM.

METHODS

The decisions used in a previously published jurisprudential analysis of the Ontario Workplace Safety and Insurance Appeals Tribunal (ONWSIAT), hereafter the 'Tribunal', were reviewed to identify the challenges faced by the courts concerning FM as well as the factors perceived to weight the evidence (5). Only the final decisions as written by the ONWSIAT adjudicators were available for the present analysis. Particular attention was devoted to the following four issues: confirmation of the diagnosis of FM and evidence of FM retrieved from reports by various health care professionals; factors mentioned regarding causality; evaluation of impairment; and reference to the medical literature. Thereafter, the 2012 Canadian Fibromyalgia Guidelines (hereafter 'the FM Guidelines') were read in their entirety to determine whether statements contained in the guidelines could be helpful in the adjudication process (6). If insufficient evidence was available in the FM Guidelines, direction was sought by examining the current literature.

ESTABLISHING A DIAGNOSIS OF FM

The challenge

The courts accept the concept of FM as a subjective report of diffuse pain with associated complaints and possible disability, but remain challenged in fully attributing a diagnosis of FM in the absence of a defining test. The Tribunal frequently referenced the tender point count (TPC) as an abnormal physical finding, and tended to accept the diagnosis of FM when this finding was reported. Confirmation of the diagnosis of FM was also often reliant on specialist reporting of application of diagnostic criteria. A Vice-Chair stated that "rheumatologists have been at the forefront of research in this area and, in my view, are therefore in a good position to provide a reliable diagnosis"

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(2007 ONWSIAT 317, para. 39). Consequently, the diagnosis of FM was provided by a rheumatologist for 75% of decisions, with only 13% by a primary care physician (5).

The literature

While a formal diagnosis of FM is required to deliver care to patients, it should be recognized that it is often more relevant in the delivery of care to focus on the intensity of symptoms and their effect on global functioning. This concept is highlighted in the FM Guidelines in their emphasis on heterogeneity among patients (6-8). While widespread pain, varying in location and intensity, is identified as the defining symptom of FM, fatigue, cognitive dysfunction, sleep disturbance and mood disorder all contribute to impairment (7). Other medical conditions also present with diffuse pain, but they can mostly be excluded in differential diagnosis following a composite clinical evaluation that includes selective testing where indicated (6).

The current FM Guidelines, while emphasizing the need for a physical examination to exclude other rheumatic or neurological conditions, stress the typical normalcy of the examination in FM, except for some generalized soft tissue tenderness, and the lack of need to record the TPC, thereby rejecting the TPC as a diagnostic criterion. The TPC has been widely disputed as an 'objective' test; despite this, it has remained embedded as a practice in the diagnosis of FM over the past two decades (9). Notably, the American College of Rheumatology criteria were formulated to identify homogenous patient cohorts for research purposes, but were explicit in declaring that they were not intended to be used in establishing the diagnosis of FM in an individual patient (9,10). Because symptoms of FM fluctuate over time, it is intuitively evident that patients may move in and out of criteria over time. The FM Guidelines also depart from current beliefs in as much as the diagnosis of FM no longer requires confirmation by a specialist, with the role of the primary care physician in both diagnosis and continued care emphasized.

Commentary

The focus should not be on an 'all-or-none' diagnosis of FM. The global intensity of symptoms related to impaired function is more relevant to the medicolegal setting. For the reasons stated above, the American College of Rheumatology 2010 diagnostic criteria should not be used to establish a clinical diagnosis of FM in an individual, and should not be used in the adjudication of FM. Similarly, the TPC, no longer regarded as a defining feature of FM or measurement of severity, should not be referenced in the medicolegal setting.

Consistent with the FM Guidelines, we contend that the opinion of the family physician must be attributed due weight when legal decisions are reached (6). It is intuitive that a condition that spans many medical domains and persists over time should be managed by a health care professional with a sound longitudinal knowledge of the patient as documented in the medical records. The specialist evaluation often occurs long after onset of symptoms, as reflected by a mean time lapse of 4.3 years between injury and FM diagnosis in the Tribunal decisions (5). This weakness was recognized by the Tribunal: a Vice-Chair concluded that "the medical opinions (were) provided by health care practitioners who did not treat the worker prior to the compensable work accident and appeared to have to rely solely on the worker's reporting of her symptoms" (2011 ONSWIAT 1716, para. 25 and 29).

IS THERE EVIDENCE FOR CAUSATION IN FM?

The challenge

The central issue of many claims for FM is the matter of causation, with physical trauma often cited as a cause. This is particularly pertinent when an incident has not caused any physical damage, but is claimed to have triggered FM. An important concept that requires consideration in the adjudication of FM is the 'thin-skull doctrine', which acknowledges pre-existing conditions that may compromise health and confer vulnerability. Commentary on previous health status was lacking for one-quarter of the Tribunal decisions (5). While

not meant to deny compensation, the thin-skull doctrine rather acknowledges the fragility of some individuals and, thereby, can allow for fair assessment. Beyond causation, persistence of symptoms must be judged on two other fronts, namely additional contributing factors and the claimant's effort to mitigate the health condition.

The literature

While there is no well-defined cause of FM, up to one-third of individuals attribute onset to some triggering event (11). Factors to consider regarding causation include the nature of the event – either physical or psychological – and evidence for predisposition. Genetic factors may play a role; familial studies report FM diagnosis in one-quarter of blood relatives of FM patients (12). Other possible contributing factors include some deficiency of the stress response system mediated via the hypothalamo-pituitary-adrenal axis; a susceptible psychological status; as well as previous adverse life experiences, particularly in childhood, which confer vulnerability (13-15). Thus, numerous interacting factors may be the setting for an event to trigger FM.

Injury, especially at work or in a motor vehicle accident (MVA), is often alleged as a reason for the onset of FM, but without clear explanation as to why this should be the case. Although most information regarding causation is reliant on retrospective study, a single four-year prospective United Kingdom population study reported a 12% incidence of diffuse pain following an MVA, with an 'at-risk' phenotype characterized by poorer health and psychological variables (16). In another study, FM was diagnosed in 14% of individuals within three months of a whiplash injury, but this figure was reduced to 8% when neck-region tender points were excluded (17). In this study, the rate of FM was also 2.7 times higher for females, and 4.2 times higher for those in litigation. Additional studies involving neck injury, either sustained in the workplace or in MVAs in Israel, report a rate of FM from 1% to 22% (18-20). Precollision health-seeking behaviour and somatization, perceived injury severity, postcollision physical symptoms and older age predicted new onset of diffuse pain in 8% of 957 individuals in the United Kingdom when followed for 12 months following a MVA (21). In contrast, chronic neck pain following MVA did not occur in Lithuania, a country where disablement is less common and also less compensated (22).

Workplace injury is also cited as a trigger for FM, begging the question of whether FM should be a compensable condition (23). In a two-year prospective study involving 896 newly employed individuals, chronic widespread pain developed in 12% after two years, with monotonous work and low social support as the strongest independent predictors of symptom onset (24). In the Tribunal decisions regarding workplace injury as a cause of FM, 68% of the 123 claims for new-onset FM were due to a single injury, with low back or shoulder injury commonly cited, while 50% of claimants had previously received compensation for work-related injury (5).

Commentary

Until the exact cause of FM is understood, triggering events may be alleged by some individuals. In the words of the Tribunal, "although the scientific evidence does not confirm that fibromyalgia may be caused by an injury, it also does not prove that it cannot be caused by an injury" (2008 ONWSIAT 2267, para. 68). The current evidence for injury as a sole factor in onset of FM is less convincing, with contextual factors of previous physical and psychological health, social and work history, and the societal stance toward illness and compensation all playing a role. Because FM represents a spectrum of polysymptomatic distress with evolution of symptoms over time, a full background medical and psychosocial history, ideally found in the primary care health record, is mandatory, and the physician should provide unbiased factual information free of advocacy (25). The temporal relationship between event and illness onset is also critical, with an expected logical temporal continuum; a hiatus in time is less plausible.

A caveat foreign to medical thinking is the legal concept of a 'significant contributing factor'. This legal buffer allows the trier of fact to

use common sense in reaching a decision, but alleging the absence of factors other than the incident is not sufficient to establish causality. This understanding has not, however, been a constant in ONWSIAT jurisprudence, with one decision reading “where there is a diagnosis of fibromyalgia and there is no evidence of factors other than the work-related injury that could have caused the injury, it would be unreasonable then to conclude that the fibromyalgia was not compensable” (2006 ONWSIAT 2964, para. 37). Specifically for FM, it should be stressed that the condition may occur spontaneously in up to two-thirds of individuals; therefore, the Tribunal’s above-mentioned standpoint must be rejected (11).

ARE SYMPTOMS SUFFICIENTLY SEVERE TO JUSTIFY DISABLEMENT AND COMPENSATION?

The challenge

Paralleling increased public awareness of FM, there has been a significant rise in societal perception of disablement, with up to one-third of North American individuals with FM now claiming disability (2,3,26). In an editorial that bears upon our analysis of ONWSIAT decisions, Hadler (23) commented that individuals affected by FM seeking compensation must prove illness and, therefore, cannot afford to get well. Functional impairment leading to claims of disablement may, thus, be closely aligned with lack of effort to mitigate health status in some claimants. Therefore, not only the documentation of symptoms and their severity, but also efforts to improve health should be important considerations in the adjudication of disablement due to FM.

The literature

When reliant on subjective report of symptoms to assess severity, the reliability of a claimant’s report is critical. However, there is no consistent clinical method to assess the validity of self-reporting. Similarly, there is also no accurate method of establishing reliability of subjective report in the research setting. Tests of memory and effort of memory have been claimed to be a surrogate measure of reliability, but are not generally used in the clinical setting. There may be numerous reasons why an individual may report subjective symptoms more severe than perceived by a health care professional. Nonexhaustively, some explanations for this discordance may be that a person may truly experience severe subjective symptoms, but have an outward appearance of normalcy; the personal impression of disability by a patient may differ from impairment that is objectively observed; there may be fear of harm caused by activity, recognized as kinesiophobia; and, finally, secondary gain issues beginning with simple amplification of symptoms and progressing to true malingering may also be operant in a subgroup of claimants. Although physicians intuitively believe their patients, discordance between patient and physician assessment of health perceptions in FM exists (27).

There is evidence suggesting that feigning or exaggeration of symptoms may be common in claimants alleging disability due to FM. In a study involving 96 FM patients, Gervais et al (28) reported that FM patients receiving disability compensation or in the process of applying for compensation were more likely to fail one or both of the memory effort tests than the FM patients not receiving/seeking disability compensation (35% versus 4%), leading the authors to conclude that a “significant minority” of claims for disability in FM are fraught with exaggeration of symptoms (28). More recently, an evaluation of the Test of Memory Malingering (TOMM) in research volunteers with FM (none of whom were involved in disability claims) showed that no patient demonstrated poor effort on this test despite important levels of functional disability, pain and depression, with the authors concluding that pain and/or depression do not affect the scores on the TOMM (29). Combined with the knowledge that 17% of a sample of 326 chronic pain sufferers undergoing evaluation for disability or involved in injury litigation failed the TOMM, one can infer that a subset of claimants with chronic pain conditions, such as FM, may be exaggerating memory impairment (30). Nevertheless, factors such as fear of injury for muscle effort testing, effect of pain and medications

on function, satisfaction with work environment as well as other motivational factors may be operative for some patients. Evaluation of effort may, therefore, provide some additional information regarding the validity of subjective symptom complaints, and may be pertinent in the medicolegal setting.

Characterized by a waxing and waning course, the outcome for individuals with FM is not universally poor for the majority (contrary to common belief that FM is an incurable condition). However, outcome tends to be worse following a traumatic incident (8,11,31-35). Factors affecting outcome may include the individual expression of the syndrome, the background individual phenotype and societal attitudes. While no reliable predictors of outcome have been described, personality traits, such as neuroticism and catastrophizing, poor internal locus of control, low motivation and uncontrolled depression have all been observed to have a negative impact (36-40). Similarly, individuals preoccupied with physical symptoms or seeking a concrete somatic diagnosis may develop lifetime sickness behaviour (27).

Although symptom severity may be surmised to be an important factor determining ability to work, patient-perceived physical limitation has been shown to be a better predictor of employment (41). Working FM patients have generally less severe symptoms and experience a better quality of life than those who are unemployed, but it has not been established that work positively affects perception of symptom severity and global health status in persons with FM (42,43). Pacing or specific reasonable adjustments in the workplace may improve retention in employment (44,45). Although physical and psychological job demands influence employment, the life situation, the attitude of the patient and ability to influence work parameters are also contributing factors (46).

Commentary

Adjudicators and legislators should be mindful that disability rates associated with FM are out of proportion to that observed for many other chronic illnesses. Claimant credibility will critically influence the trier of fact when symptoms are entirely subjective (4). Claimant credibility was doubted for 13% of the Tribunal decisions but, even so, some appeals were accepted due to accumulated evidence. Because FM tests this concept to the ultimate, whereby a healthy-appearing individual reports disabling symptoms, judges must assess the credibility of the claimant, both in real time and assisted by all testimony. Therefore, physician experts should stay true to the mission of any expert witness in the Canadian legal setting; to assist the trier of fact in understanding specific complex matters in a manner that is devoid of advocacy and bias. Medical experts performing an independent medical examination of a claimant should, therefore, report on inconsistencies (or lack thereof) noted during the examination, but not draw conclusions outside of the medical domain.

Questionnaires are the only tools that can help measure status in conditions that have subjective complaints and no biomarker. For FM, the current questionnaires used in the research setting are of questionable usefulness in clinical practice or the medicolegal setting, and should not be used to assess symptom severity (47). Similar to narrative reporting of symptom severity, disease status questionnaires commonly used in the research setting to assess FM should reflect patient-perceived symptom severity, but may be answered to project accentuated symptom severity. Rather, function pertaining to daily activities, including leisure and health-related activities, should be examined. Recounting activities during a typical day may provide insight into daily functioning. The FM Guidelines have recommended that simple questioning combined with patient narrative is a reasonably reliable outcome measure for clinical practice.

A key question in adjudicating disablement is whether a claimant has achieved maximal medical improvement, a concept difficult to apply to FM in view of fluctuating symptoms. Taking note of personal intrinsic factors, such as motivation, psychological status and coping skills, the courts will assess whether a person has made reasonable effort to mitigate illness by adherence to medical recommendations

promoting self-motivation, active participation and application of good lifestyle practices. The FM Guidelines stress the need to move away from reliance on pharmacological treatments alone. Participation in a rehabilitative program that emphasizes physical activity, modulation of stressors and tempering of 'fear of hurt' (ie, kinesiophobia) should be offered to those who self-report functional impairment.

The FM Guidelines further emphasize the global health benefits for patients remaining in the workforce and thereby encourage continued employment. Further recommendation for individuals on a prolonged sick leave includes participation in a rehabilitation program to facilitate a return to work. The diagnostic label of FM must no longer equate with work-related disablement for the vast majority of patients.

THE EXPERT TESTIMONY AND PUBLICATIONS

The challenge

The courts rely on the testimony of the expert to provide clarification of a medical condition in a particular person, be knowledgeable of an illness within their field of expertise and be able to provide up-to-date and reliable evidence of the current understanding of an illness. Medical experts may bolster their testimony and reports by referring to the published literature. However, all publications do not hold the same weight. Although this aspect was not specifically addressed in the FM Guidelines, it is pertinent that the legal community in particular be cognizant of the variability in quality of medical publications. As an example, some organizations may develop their own summaries, which could be used to assist in understanding various medical conditions. This form of publication, termed a medical discussion paper, is used by the ONWSIAT. Written to be understandable for nonmedical persons, the ONWSIAT publication on FM, a 2000-word document written by a rheumatologist in 2003 and still in use today, does not read as a formal medical manuscript and is not peer reviewed (48). On closer scrutiny, this discussion paper falls short in up-to-date information for a number of reasons. While the document does not formally reference any articles, it does propose further reading consisting of 21 papers, 19 of which are discussion-type articles (reviews, letters, etc). When recently reviewed by a specialist in internal medicine by means of a literature search identified as a "WSIAT literature search" and not further defined, no additional information or references were included. The reviewer stated that "this paper still provides a balanced overview of the medical knowledge in this area" (48).

The literature

The courts increasingly recognize that they must be gatekeepers, preventing nonexpert witnesses and unscientific evidence from being freely used. This will ensure that triers of fact appreciate issues such as validity, reliability and applicability of clinical tests and research questionnaires to real-world situations, while understanding the limitations of self-reporting of history and activity level. The admissibility of expert testimony has been exemplified in the courts by rulings of the Supreme Court of the United States (*Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 ([1993])) and of the Supreme Court of Canada (*R v. J-LJ*, [2000] 2 SCR), whereby the evidence presented by an expert witness should be based on sound scientific methodology.

Copious references to FM can be found in either the lay or medical literature, with a Google search in January 2014 yielding 5,650,000 results and a PubMed search yielding 7706 citations. However, the sheer numbers of citations are not synonymous with good evidence. Evidence in general arises from many sources and is of variable quality that can be graded based on systematic and standardized approaches (49). The highest level of evidence is attributed to meta-analyses and systematic reviews, which evaluate a composite of the current literature, with the next best evidence attributed to information from randomized controlled trials. However, even when a study is reported as a randomized controlled trial, careful assessment of the evidence may show that the study is of poor quality. Anecdotal reporting, publications that are not peer reviewed and opinion papers hold the least weight. Therefore, it is of paramount importance that courts rely on good-quality evidence.

The ONWSIAT has mandated health care professionals to develop medical discussion papers on various topics to assist in understanding some medical conditions. Although the Tribunal is not bound by the contents of a medical discussion paper, the FM discussion paper used by the ONWSIAT was cited in almost 40% of appeals (5). This FM discussion paper provided very poor quality evidence and is highly deficient for a number of reasons: it was not subject to peer review; no references were provided other than additional suggested readings; and when reviewed in 2013 – 10 years after initial publication in 2003 – no additional information had been added, although the published literature in that decade reported considerable advances in understanding and management of FM (48).

Commentary

It is critical that any publication cited in a medicolegal setting be of good quality, as judged by current standards, and presents scientific evidence that is sound and unbiased. Any document other than a peer-reviewed publication should conform to standard procedure for citing the literature, should clearly reflect the current state of the art, and should be regularly updated to keep in line with current science. Although the FM Guidelines did not specifically address how to assess the quality of a publication for the medicolegal setting, the guideline recommendations were based on a rigorous appraisal of the available literature that was clearly outlined (6).

CONCLUSION

Evolution in the concepts surrounding FM over the past two decades has implications for the medicolegal world. While FM is accepted as a condition with neurophysiological changes, clinical evaluation and legal adjudication remain entirely dependent on subjective reporting. We have highlighted the concept of FM as a polysymptomatic condition with variable expression, examined issues of causation and disablement, and have explained that while a diagnostic label is required, emphasis should rather be shifted toward evaluating the severity of symptoms and true functional limitations, with less emphasis on an 'all-or-none' diagnosis.

We have offered several recommendations concerning FM in the medicolegal milieu. First, expert testimony must be factual and objective, without bias or advocacy, and must be focused toward assisting the trier of fact in complex matters. The medical expert should exercise caution in attributing causation and should take into consideration multiple factors including previous health status, temporality and the narrative in routine clinical notes. Second, the importance of the family physician in matters of FM is highlighted, especially with regard to previous health status and the evolution of the medical condition. Third, the role of previous global health status is increasingly recognized for its pertinence to the full expression of FM, and may be even more important than any specific incident. Finally, any document provided to assist the courts must be sound and reflect current medical evidence.

Until identification of a reliable biomarker for FM is obtained, evidence will remain dependent on subjective reports and medical assessment, and we acknowledge the challenge presented by both. While we have made an effort to not undermine the suffering of FM patients, we also suggest that the current high rate of disablement associated with FM must be curbed and that a diagnosis of FM should not automatically equate with disablement. Each case should be critically evaluated to render the best decision, one that is fair to both the individual and society. In a condition characterized by subjective symptom report, fraud presents a twofold challenge. First, subjective symptoms may be exploited by dishonest claimants or amplified by individuals with true disease for various reasons. Second, fraud insidiously harms legitimate sufferers who truly merit disability compensation by discrediting the condition as a whole. Physicians involved in the disability process have a moral obligation to apply sound clinical judgment and sufficient scrutiny in their evaluations to identify those few persons who abuse the diagnosis and thereby negatively affect legitimate sufferers.

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