

# Letter to the Editors

## A painful train of events: the rebirth of railway spine

Sirs,

The most succinct reflection on the report by Buskila *et al.* (1) of the relatively significant prevalence of chronic pain, psychological disorder, and disability (fibromyalgia) after major train collisions would be "been there (1), known that" (2, 3). The report signifies an ominous event: the repetition of history. A once epidemic phenomenon appears to have been recognised again. Here, one is concerned about the re-emergence of railway spine (2, 3).

The history of railway spine (now called post-train collision fibromyalgia by some) has been reviewed in detail elsewhere (2, 3). The lesson learned from this history is that railway collisions are quite horrific events, often resulting in explosions, serious injury, and many fatalities. Among the survivors, however, there may be a subset whose symptoms appear to occur when they "had not received a scratch" (4). These patients puzzled medical science in the 19<sup>th</sup> century (4), but they should not do so now.

In fact, the eventual understanding of railway spine developed into appreciating it as a post-traumatic stress disorder (2). Currently, the evidence points to some cases of post-traumatic fibromyalgia as having more to do with post-traumatic stress disorder than any other disorder (5).

From the original cases series reported as railway spine (4), the symptoms can be listed as in Table I.

The history of this medico-legal and social development of railway spine has been reviewed by Keller, wherein the relevance and parallels to fibromyalgia are apparent (6). Inevitably, in the absence of underlying scientific support, railway spine lost steam (as did trains) over the years. Scientists began to denounce Erichsen's theories and the lack of experimentation to support them. In time, other prominent physicians, such as the Parisian neurologist Jean-Martin Charcot, would bring forward the psychology of traumatic neurosis, applied to types of injuries not necessarily involving the spine and which led to more effective treatments than any based on injury models. Indeed, by the turn of the century, medical articles had started to review the history of railway spine under such titles as "Neuroses Following Railroad Injuries" (7). Did we learn (2, 3), or didn't we? (1).

*He who lives to see two or three generations is like a man who sits in a conjurer's booth at a fair, and witnesses the performance twice or thrice in succession. The tricks were meant to be seen only once; and when they are no longer a novelty and cease to deceive, their effect is gone* (8).

*The novelties of one generation are only the resuscitated fashions of the generation before last* (9).

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**Table I.** Railway spine symptomatology, as described by Erichsen (4), paraphrased with current medical terminology.

Memory impairment
Poor concentration
Sleep disturbance
Anxiety
Irritability
Back stiffness and pain
Pain on movement of spine
Headache
Hearing problems
Extremity numbness
Arm and hand pain
Loss of sexual desire

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## Reply

Sirs,

We read with interest the letter of Dr Ferrari and would like to thank him for his historical perspective on the issue of fibromyalgia following a railroad crash. It seems a pity though to adopt such a pessimistic point of view, as might inevitably be expected to spring out of viewing the topic through a Schopenhauer prism, as Dr Ferrari has chosen to do. Indeed, the association between train crashes and chronic pain has been recognised for a long time. In his original paper coining the term "fibrositis", decades later to evolve into "fibromyalgia", William Gowers describes the following: "... Another definite form of fibrositis is the traumatic, induced by sudden violent tension on the tendentious and ligamentous structures ... I recently saw a woman who had strained her back severely during the overturning of

a tramcar three months before. Ever since the accident there had been extreme sensitivity of the tendinous attachments of the dorsal muscles to the spine bone." (1). Similarly, Frida Kahlo, the great Mexican artist, suffered a tragic life of chronic pain ever since being severely traumatised at the age of 18 in the collision of a street car and a bus, and probably in fact endured longstanding, poorly-treated fibromyalgia (2). And yet, we still reject Dr Ferrari's pessimism. Over the last couple of decades, enormous progress has been made in understanding the etiology and pathophysiology of fibromyalgia (3), as well as improving the understanding of the relationship between trauma, PTSD and pain (4, 5). Thus, we are closer than ever before to understand the way in which central sensitisation develops and tics (6). We now can begin to understand the way in which activation of the autonomic nervous system, through trauma and/or stress, can contribute to the development and stabilisation of altered pain processing (7). With all this additional evidence to draw from, we are far better posed to incorporate the train - trauma model into the broader context of fibromyalgia. We no longer need to treat it as a "Neuroses following railroad injuries", a terminology which, in fact, contributes next to nothing to explain the alteration of pain processing occurring in individuals after such events.

Thus, rather than use metaphors of conjurer's booth and resuscitated fashions, we would prefer the old image of "nanos gigantium humeris insidentes" (dwarfs standing on the shoulders of giants). We can draw on the 19<sup>th</sup> century clinical acumen and experience and add our 21<sup>st</sup> century enhanced acuity regarding mechanisms involved in pain processing. No need for pessimism.

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