Confusion surrounding repetitive strain injury highlighted at conference

Features

Chroniques

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In brief

UNCERTAINTY ABOUT DISORDERS that account for many of the claims related to job injury at work became clear during a recent meeting, when speakers referred to the same disorders by several different names, including repetitive strain injury. Speakers discussed different types of injuries and reasons why they appear to be coming more common.

En bref

L'INCERTITUDE RELATIVE AUX TROUBLES qui sont à l'origine d'un grand nombre des demandes liées aux blessures subies au travail est devenue claire au cours d'une réunion récente lorsque des intervenants ont parlé des mêmes troubles, y compris des microtraumatismes répétés, en utilisant une terminologie différente. Des intervenants ont discuté de types différents de traumatismes et des raisons pour lesquelles ils semblent devenir plus fréquents.

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Can Med Assoc J 1997;156:1459-60

Uncertainty about the cause, treatment and even the name of a group of disorders sometimes lumped together as repetitive strain injury has (RSI) stymied efforts at prevention, speakers told a recent conference.

Yet there is a vital need for better prevention, participants at the International Symposium on Global Rehabilitation Trends were told, especially since treatments for the conditions often appear to be ineffective. The conference, sponsored by the Ontario Physiotherapy Association, was held in Toronto.

Although the disorders have been reported for more than 2 centuries, the past decade has seen a steady rise in insurance claims for disorders of the neck and upper limbs, and they now represent a significant proportion of lost-time claims to workers' compensation boards. In 1992, almost 25% of all lost-time claims made to the Workers' Compensation Board of Ontario concerned upper-extremity disorders, mostly soft-tissue conditions. In the US, the National Institute for Occupational Safety and Health estimates that the disorder accounts for more than $2.1 billion in worker-compensation costs and $90 million in indirect costs every year.

Although certainty about cause and treatment is elusive, Dr. Leon Straker, who teaches ergonomics at Curtin University of Technology in Australia, said hand-tool and workstation design, physical environment, work organization and the psychosocial environment can all be modified to reduce the incidence of upper-limb problems. However, no single treatment has been found to be consistently effective, and uncertainties about the name, cause and treatment of the conditions have contributed to inaction on the part of employers and policy-makers.

A central problem is the proliferation of terms used to describe disorders of the neck and upper limb. Dr. Tom Armstrong, a workplace ergonomics specialist and professor at the University of Michigan, said the conditions are disorders of the muscles, tendons or nerves of the upper limb that are caused, precipitated or aggravated by repeated exertion or movement. Included are several "diagnosable" conditions such as tendinitis, carpal tunnel syndrome, tenosynovitis, lateral epicondylitis and hand-arm vibration syndrome.

As well, Straker said there are "nonspecific conditions" of the upper limb

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that are often characterized by variable pain patterns, altered sensation, swelling and circulatory change. The confusion about naming this group of conditions was well illustrated during the conference.

Armstrong spoke of cumulative trauma disorders, the term most widely used in the US. Dr. Donald Cole of the Ontario-based Institute for Work & Health discussed "work-related musculoskeletal disorders," Straker discussed work-related neck and upper-limb disorders, and others spoke of RSI.

Straker noted that the confusion with terms impedes effective management in several ways. Some of the terms suggest a simple etiology that may not make sense to employers. For example, cumulative trauma disorder suggests that some physical trauma must occur, making it difficult for those who supervise computer operators to see how it applies to these workers.

As well, the variety of umbrella terms makes international comparison of research, and of successful interventions, difficult. Because they are not aware of evidence to the contrary, Straker noted, many managers assume that upper-limb disorders can be treated effectively by health care professionals. This belief discourages an active management strategy to prevent the problems.

The plethora of terms may serve another purpose. In an interview after his address, Armstrong said that hesitancy about naming the group of disorders may also reflect a fear that "if you give something a name you make it compensable and, with the label, you reinforce a disability."

In the early 1980s, there was widespread controversy about seemingly epidemic levels of RSI in Australia. As a result of an extremely emotional public debate, said Straker, the term RSI was abandoned there in favour of "occupational overuse syndrome."

During the question period following his presentation, he said another consequence of the controversy was that "a big blanket was put on the whole issue." He said granting agencies would not fund research in the area and the *Medical Journal of Australia* declined to publish research on the subject. "Since 1984, there has been little new information on the condition coming out of Australia."

Straker said management of suspected or confirmed cases of the upper-limb disorder is usually recommended to have 4 components: treatment of symptoms (preferably through conservative management); analysis and change of work conditions (to identify likely risks and reduce these as much as possible); continued work, or early, graduated return to work (to avoid or minimize detrimental consequences of prolonged absence); and recognition and assistance for social and psychological problems, whether related to work or not.

Straker said workers in Western countries usually seek 5 different types of treatment for symptom relief: medical, surgical, physical therapy, psychological therapy and alternative treatments.

Medical treatment often involves the use of anti-inflammatory and analgesic medication, while surgery is aimed at the release of pressure on neural tissue. Physical therapy includes spinal manipulation, muscle stretches and exercises. Psychological therapy usually involves stress counselling, while the alternative therapies used include homeopathy and chiropractic treatment.

But treatments have not been subjected to evaluation, patients are often given conflicting advice and there is a critical shortage of solid research in the area. "What is clear from discussion with people with [work-related neck and upper-limb disorders] is that these treatments are remarkably ineffective and sometimes even exacerbate the problems — this seems particularly true of surgical interventions."

For most work-related injuries, the opportunity for an early return to work — to a job that, if necessary, makes allowances for the injury or disability — has resulted in significantly reduced long-term disability claims.

Cole, from Ontario's Institute for Work & Health, noted that the costs of accommodating workers so they can return to work are usually extremely small. (Such accommodation is obviously more difficult for smaller firms, but in the US small firms are banding together so the can better provide employment for injured workers and save on workers' compensation costs.) However, the cost to injured workers who are not accommodated at their workplace, and return to a different employer, is high: Cole said they take an average wage cut of 18%.

Ergonomics consultant Dr. Suzanne Rodgers, who has worked with several large American corporations, said RSI is on the rise for several reasons. In the past, when many people stayed at the same job for 40 years, there was a natural selection process and those who developed painful conditions would seek other work.

As well, employers in sectors such as high-volume manufacturing now tend to automate processes if possible, and this often ends up being the lighter tasks between the more complex work. As a result, "workers are driven by machines and no longer have the lighter task [to provide] recovery time."

Still, Rodgers said that 90% of the problems she sees result from communication errors. She cited the example of a chronic care wing in a hospital that was plagued by claims for back injury because of workers attempting to move patients to the x-ray department. A few mechanical lifts were available within the hospital, but chronic care patients were not called for x-rays until the last minute, after regular patients failed to appear. This meant that nurses had to rush to get them to the x-ray department. The solution, said Rodgers, was to give chronic care patients regularly scheduled appointments.