A case–control study examining the role of physical trauma in the onset of fibromyalgia syndrome

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FROM ABSTRACT

Objective.
To investigate whether physical trauma may precipitate the onset of fibromyalgia syndrome (FMS).

Design.
A case–control study was carried out to compare fibromyalgia out-patients with controls attending non-rheumatology out-patient clinics.

Method.
136 FMS patients and 152 age- and sex-matched controls completed a postal questionnaire about any physical trauma in the 6 months before the onset of their symptoms.

Results.
Fifty-three (39%) FMS patients reported significant physical trauma in the 6 months before the onset of their disease, compared with only 36 (24%) of controls (P<0.007).

There was no significant difference between FMS patients who had a history of physical trauma and those who did not have physical trauma with regard to age, sex, disease duration, employment status and whether their job at onset was manual.

Conclusion.
Physical trauma in the preceding 6 months is significantly associated with the onset of FMS.

THESE AUTHORS ALSO NOTE:

“Fibromyalgia syndrome (FMS) is a chronic musculoskeletal condition characterized by diffuse pain and hyperalgesia at specific tender sites.”

Fibromyalgia has a prevalence rate of 2% in the population, and primarily in women.
Fibromyalgia is the 3rd or 4th most common rheumatological referral.

“An aetiological trigger factor of FMS is physical trauma.”

Physical trauma has always been a preceding risk factor for osteoarthritis, rheumatoid arthritis, psoriasis and ankylosing spondylitis.

PHYSICAL TRAUMA AND FMS

“The lay public has always considered physical trauma to be important in precipitating fibromyalgia.”

Studies reported that between 25 and 50% of subjects with FMS recall physical trauma immediately prior to the onset of their FMS symptoms.

In a 1997 study, the “risk of developing FMS was more than 10-fold higher in adults with neck injuries than in other adults.”


In this study trauma included fracture, surgery, childbirth or miscarriage, a road traffic or other accident.

RESULTS

Surgery and injury at work were found to be significantly more likely to be reported prior to the onset of FMS when compared with controls.

Trauma was significantly more frequent in the FMS patients group as compared to controls.

Of the traumas resulting in FMS, “road traffic accident” was the least common, while surgery was the most common, followed by “injury at work.

DISCUSSION

“Our results suggest that physical trauma was significantly associated with the onset of FMS.”

39% of FMS patients had a history of physical trauma in the preceding 6 months compared with only 24% of the controls.

The authors found that “significantly more FMS patients had surgery and injury at work prior to the onset of their disease compared with controls.”
“Our finding that 39% of FMS patients reported trauma before the onset of FMS was consistent with some studies in which the incidence of reported trauma prior to FMS onset was reported as between 25 and 50%.”

“There were no significant differences between FMS patients with and without trauma with respect to mean age, sex distribution, disease duration, number of children per person, number employed at onset and number who were in a manual job at disease onset.”

The authors suggest that the patients who develop FMS after trauma may be “genetically predisposed” to do so.

“In conclusion, our study suggests that physical trauma in the 6 months before the onset of symptoms is significantly associated with the onset of FMS in patients attending a rheumatology out-patient clinic.”

KEY POINTS FROM DAN MURPHY

(1) Fibromyalgia is the 3rd or 4th most common rheumatological referral.

(2) 2% of the population has fibromyalgia, primarily women.

(3) Physical trauma is a significant etiological trigger for FMS onset.

(4) 25% to 50% of those with FMS note physical trauma immediately prior to the onset.

(5) The risk of developing FMS is more than 10-fold higher in adults with neck injuries than in other adults (1997 study).

(6) Those who develop FMS after trauma may be “genetically predisposed.”

(7) Physical trauma also increases the risk for osteoarthritis, rheumatoid arthritis, psoriasis and ankylosing spondylitis. [All of these are immune system dysfunctional problems.]