Natural course of rotator cuff syndrome in a French working population

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Abstract

Purposes
The aim of the study was to assess the persistence of rotator cuff syndrome (RCS) in workers several years after diagnosis and to study associations with personal and occupational factors.

Methods
A total of 3710 French workers were included in a cross-sectional study in 2002-2005. All completed a self-administered questionnaire about personal factors and work exposure. Diagnosis of RCS was established by occupational physicians using a standardized physical examination. RCS was diagnosed in 274 workers. Between 2007 and 2010, workers were re-examined by an occupational physician. Three groups were constituted: (1) RCS recovery: workers without shoulder symptoms and RCS; (2) shoulder symptoms without RCS: workers with current shoulder symptoms or shoulder symptoms occurring at least for 4 days during the preceding 7 days or for at least 4 days in one week during the preceding 12 months without diagnosed RCS; and (3) no recovery RCS: workers with clinically diagnosed RCS.

Differences in baseline exposures between the “RCS recovery” and the “no recovery RCS” groups were studied.

Results
A total of 78 men and 72 women with RCS at baseline were followed up. Forty-eight men (61.5%) had recovered without shoulder symptoms, 7 (9.0%) had recovered with shoulder symptoms, and 23 (29.5%) had persistent RCS. The corresponding values for women were 37 (51.4%), 9 (12.5%) and 26 (36.1%) respectively. Factors related to work organization, biomechanical factors and psychosocial factors were associated with the persistence of RCS in men where a upper limb symptoms and absence of job rotation were associated with the persistence of RCS in women (Figure). Men in the “no recovery RCS” group more frequently reported an increase in their physical (36.4% vs. 6.4%, p=0.002) and postural load (31.8% vs. 4.6%, p=0.014) during the preceding 12 months compared to the “RCS recovery” group.

Conclusions
The study identified personal and work-related factors which can cause persistent RCS. It would be valuable to act on these factors in order to prevent them, and to identify workers in whom RCS might become chronic.