

OF UPPER LIMBS FROM REPETITIVE MOVEMENTS AND AWKWARD POSTURES: A RESOURCE IN OCCUPATIONAL MEDICAL SURVEILLANCE OF VDT/PC USERS

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Introduction

The number of workers having work tasks which force to repetitive movements or awkward postures is large in many different work activities.

The possible cases of occupational pathologies of the upper limb caused to these workers are numerous and have consequently originated a relevant specific scientific interest of the researchers in Occupational Health.

The study of the pathologies of the upper limb from repetitive movements and awkward postures has been frequently carried out without the use of standardised international guidelines.

This fact has frequently caused a relevant difficulty in international scientific literature in the comparison of the results of the different researches.

In our research we carried out the evaluation of a group of VDT/PC workers utilizing the NORDIK Questionnaire, a largely known instrument usually applied by researchers of Northern Europe.

Methods

To evaluate the possible pathologies of the upper limb in a group of 100 VDT/PC users (all chosen among workers having a daily work with VDT/PC at least of six hours), we used the Nordik Questionnaire. All the workers did not have any previously diagnosed upper limb pathology reported in their anamnesis.

The questionnaires have been direct drawn up by the workers after a short preliminary explanation carried out by the occupational doctor.

For every worker, in the same day, we also carried out a complete clinic examination of the workers, structured as European Clinic Guidelines suggest.

Results

60 on 100 workers did not report in the questionnaires the presence of signs or symptoms of pathologies of the upper limb.

On the contrary 40 on 100 workers reported disturbances of the upper limb which could be signals of a pathology of the upper limb.

In the clinical examination of the upper limb of the 100 VDT/PC users, carried out by the Occupational Doctor, we diagnosed 11 cases of specific upper limb disorders (from repeated strain injuries) and 17 cases of aspecific upper limb disorders.

All the 28 cases of specific or aspecific upper limb disorders have been diagnosed in the group of workers who have reported in their questionnaire a positive presence of upper limb disturbances.

No case of specific or aspecific upper limb disorders have been diagnosed in the group of workers who have reported in their questionnaire a complete absence of upper limb disturbances.

No instrumental examination have been necessary for a diagnosis of the upper limb disorders.

All the patients affected by the upper limb disorders have been sent to the Orthopaedic specialists for the necessary therapy.

The Orthopaedic specialists confirmed all the diagnoses suspected by the Occupational Doctor.

Table n 1: Specific clinical pathologies of the upper limb detected during the study (n. 11)

tendinitis carpi extensor muscles	1
canal cubital syndrome	4
neck radiating syndrome	2
artrosis of hands and fingers	2
De Quervain disease	1
external epicondilitis	1

Discussion and conclusions

The results showed that the Nordik questionnaire is a valid screening tools that can be easily applied in groups of workers having relevant upper limb use or awkward postures.

The questionnaires can be drawn up directly by the workers after a short instruction meeting.

The absence of report of cases of direct or indirect upper limb disorders in the clinical examination in workers who gave back a complete negative questionnaire, is a valid example of the good reliability of the questionnaire.

The Nordik Questionnaire allows the Occupational Medical Doctor to better direct his attention on patient actually potentially affected by upper limb disorders, avoiding to loose time in generalized clinical screening on the totality of the workers exposed to repetitive movement and/or awkward postures.

The clinical examination, if carried up according to the European Guidelines, is a valid and exhaustive instrument for a correct and complete diagnosis of upper limb pathologies from repetitive movements and awkward postures.

The clinical examination, if well carried out by the Occupational Doctor, can avoid a relevant number of instrumental examinations with a relevant decrease of medical expences which could be necessary for the correct diagnosis and a relevant reduction of time consuming caused to the patients

Table n. 2: Elements on Nordik Questionnaire scheme

Body region evaluated: neck, shoulders, upper back, elbows, arms, wrist, hand and fingers, lower back.

Anamnestic data collected in all the workers for every body region: presence of pain or disturbances, past traumatic events, quantitative evaluation of symptoms in the last 12 months, consequences of the symptoms on occupational activities,

Second anamnesis level, collected only in case of positivity of some of the data listed above: medical visits carried out in last 12 months, perceived pain intensity, specific drug assumption, disability in common life and in working life occurred in last 12 months, relation of the symptoms with working activity;