

OCCUPATIONAL PATHOLOGY IN AN EMPLOYEES GROUP WHO WORK AT VIDEOTERMINAL

Claudia Borza^{1*}, Elena Ana Pauncu¹, Raluca Muntean², Florina Vizitiu², Simina Tuta²,
 Carmen Petrut², Roxana Deak², Doina Moldoveanu²

¹"Victor Babes" University of Medicine and Pharmacy Timisoara

²Explored Medical Center Timisoara

ABSTRACT

The aim of this study was to point out the occupational pathology, especially the ones caused by visual and osteo-muscular-joint overstraining in forty-eight employees who work for eight hours a day, plus five hours a week, extra at videoterminal.

The age average was 20-30 years, 79.16% of the employees and the majority being males 83.33% (40 of the subjects). A general clinical and ophthalmological examination was performed.

We observed an increased prevalence of algic syndrome and ophthalmological diseases in 2010 comparatively with 2008 in study group.

Keywords: occupational pathology, employee, videoterminal

INTRODUCTION

The aim of this study was to point out the occupational pathology, especially the ones caused by visual and osteo-muscular-joint overstraining. The procedure was through monitoring, for three years, the health state of the employees of a company who work as programmers for eight hours a day, plus five hours a week, extra, at the videoterminal (Bergqvist et al., 1995, Pauncu et al., 1997).

MATERIAL AND METHOD

The study group was made up of forty-eight subjects, age between 23-45 (the average being 20-30 years, 79.16% of the employees) with a length of service

between 1-17 years (average 1-5 years, 60.41% of the employees), the majority being males 83.33% (40 of the subjects).

The subjects filled in thematic forms, specially made for this professional category. The questionnaires contained questions (to answer with "yes" or "no") meant to indentify the symptoms determined by the osteo-muscular-joint overstraining, the working conditions, the type and rhythm of work, the personal pathology history. Another set of questions had in view the symptoms caused by the visual overstrain. A general clinical and ophthalmological examination was performed (Baciu et al., 1986, Moldovan, 1993, Popescu, 1992).

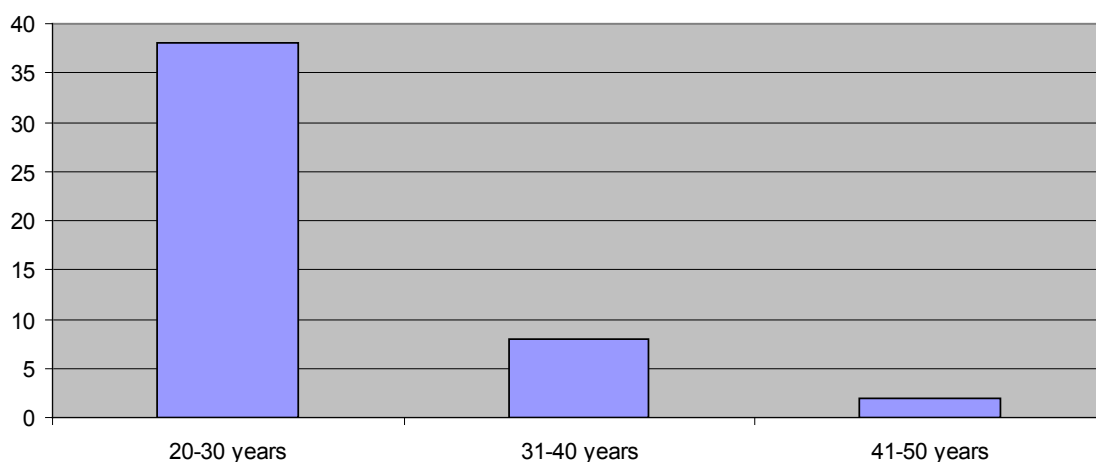


Fig. 1. Age distribution in study group.

*Correspondence: Claudia Borza, "Victor Babes" University of Medicine and Pharmacy Timisoara, Department of Pathophysiology, Spl. Tudor Vladimirescu no.14, 300173 Timisoara, Romania, Tel: 0040-(256)-246264, Fax: 0040-(256)-246264, email: claudia_borza@yahoo.com

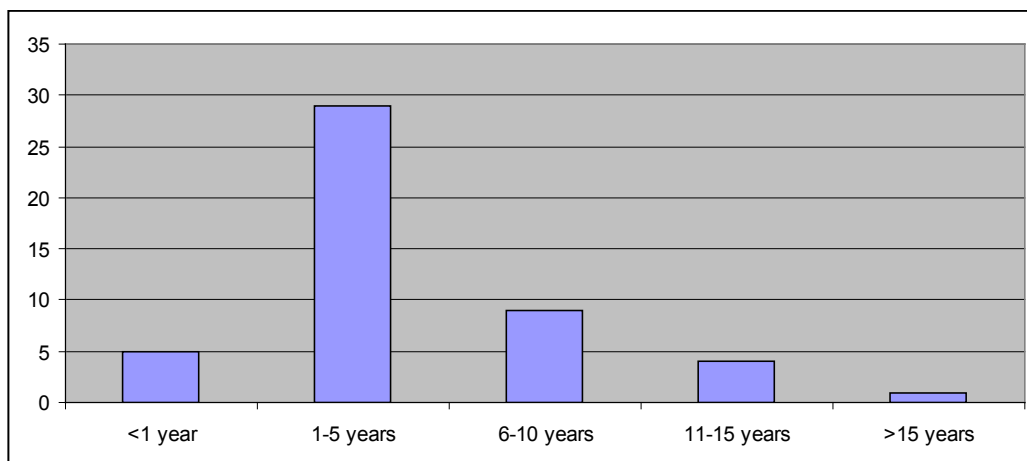


Fig. 2. Employees' distribution depending on duration in present job.

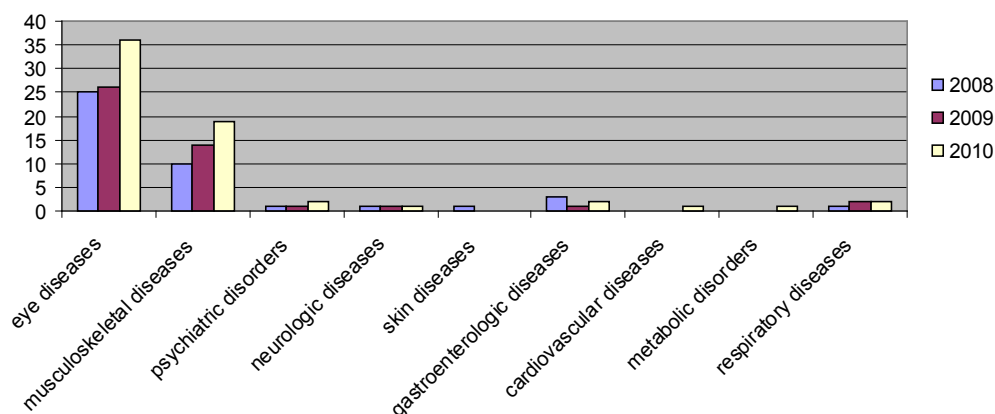


Fig. 3. Distribution of diseases in 2008-2010.

We compared the prevalence of diseases in 2008, 2009, respectively in 2010 and we observed a higher prevalence of ophthalmological diseases in 2010 (75% of subjects) comparatively with 2008 (52.08% of subjects) and of osteoarticular diseases in 2010 39.58% of subjects comparatively with 2008 (25% of subjects).

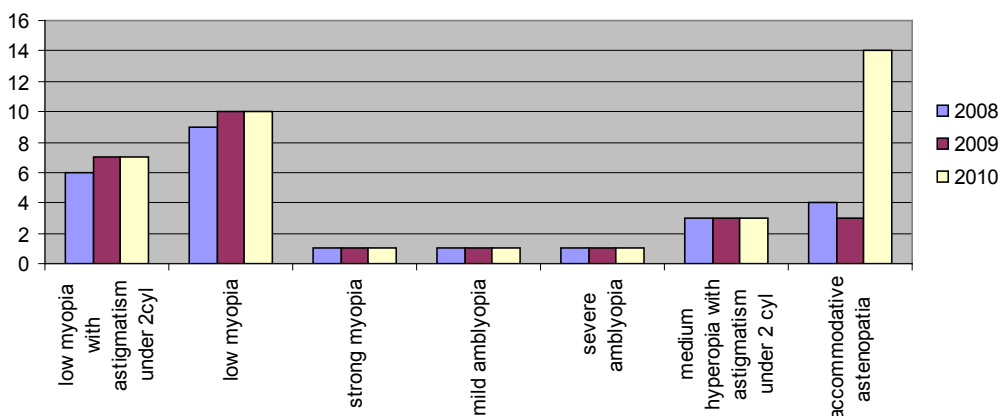


Fig. 4. The ophthalmological diseases in 2008-2010.

We observed a significant increase of accommodative astenopatia in 2010 (29.16%) comparatively with 2008 (8.33%), new cases with minor myopia ±astigmatism in 2010 (20.835) comparatively with 2008 (18.75% with minor myopia).

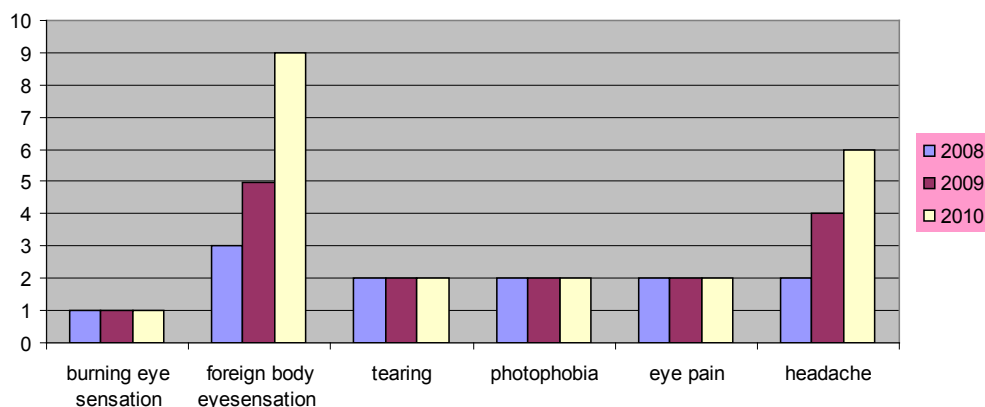


Fig. 5. The symptoms of visual tiredness in study group in 2008- 2010.

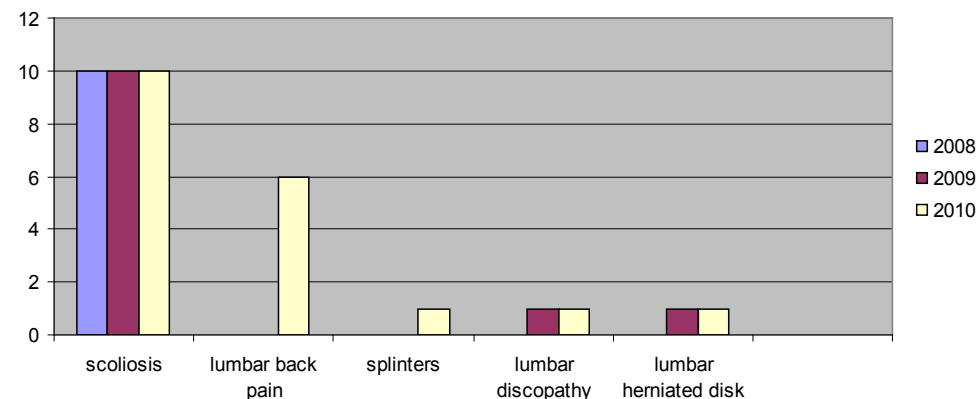


Fig. 6. The osteomusculo-articular diseases in 2008-2010.

We observed an increase of algic syndrome in lumbar and thoracic spine which limited the movements in 2010 comparatively with 2008 (12.5% new cases in 2010 correlated with the duration in this job of 1-5 years, comparatively with 2008 when this symptomatology did not exist).

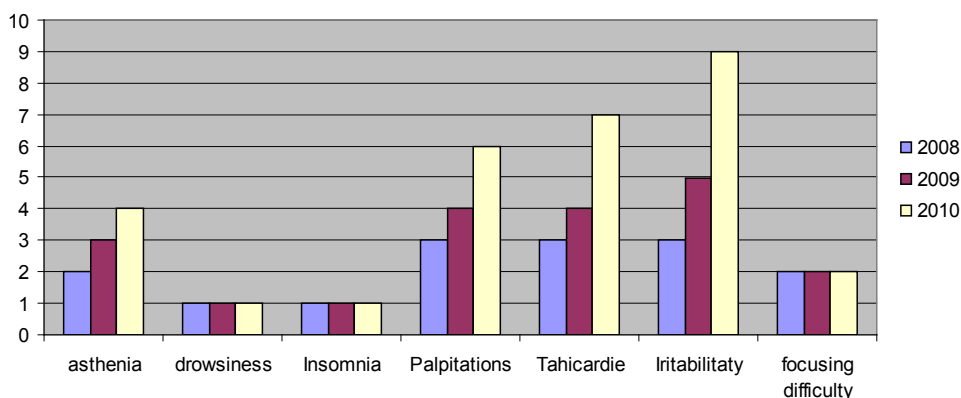


Fig. 7. The prevalence of functional modifications in study group - 2010.



We observed an increase of chronic tiredness in 2010 comparatively with 2008, especially irritability and tachycardia.

RESULTS AND DISCUSSIONS

The study group work programme is 8 hours a day, 7 days a week, with two breaks a day, one for 15 minutes and one for 60 minutes, in an environment estimated as being without noise which is a good micro-climate, and with artificial lighting most of the time, estimated as being adequate (Toma, 1997).

The posture is sitting on an adjustable chair without a foot prop, the employees having the possibility to frequently modify their posture during work and to practice easy exercises. The work rhythm is imposed, appreciated as being stressful, by 41.66% of the employees. The majority of the questioned subjects (72.91%) appreciated their work as being satisfying (Manu, 1983, Moldovan, 1993b, Niculescu et al., 2001).

From their personal pathologic history, we noticed a higher occurrence of visual ailments followed by spine disorders (Niculescu et al., 2003, Sillion et al., 2002, Toma et al., 2004).

CONCLUSIONS

The data analysis proved that:

- The design of the work place is adapted to the anthropometric dimension of the persons; the work place requires the existence of two 75 minutes breaks. Besides the prolonged sitting posture there is a series of repetitive movements at the finger joints as well the strain in the right arm.
- The working rhythm is imposed, the work being considered stressful by the majority of the employees; at the same time the activity performed brings them satisfaction.
- We noticed the existence of the pain syndrome (especially low back, high back and right arm pain), accompanied by tingling, numbness, pain when moving, with an increased prevalence of the symptoms in 2010 as compared to 2008.

PROPOSALS

- The hiring exam and the periodical medical examination will be done by according to the law (H6 355/2007, H6 1028/2006).
- The maintenance of the work breaks is mandatory (at least two on a shift) for relaxation and rest.
- Physical exercises for muscular relaxation are recommended.

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