Analele Universității din Oradea Fascicula: Ecotoxicologie, Zootehnie și Tehnologii de Industrie Alimentară, 2012

STUDY REGARDING THE LIFESTYLE OF SOME AGRICULTURAL WORKERS

Chereji Anca, Daina Lucia, Suciu Ramona

University of Oradea, Faculty of Environmental Protection, 26 Gen. Magheru St., Oradea E-mail: <u>cij</u> anca@yahoo.com

Abstract

The world has witnessed great changes in agriculture particularly in the last 40 years. Agricultural work today is best considered as a spectrum of activities in which four aspects are of particular importance: activity, scale, technology and workforce. All of these are influenced by the worker's health. Many of them suffer from obesity, cardiovascular, lung or liver diseases and expose themselves to risk factors like smoking and alcohol.

Key words: agriculture, employee, medical exam

INTRODUCTION

The field of occupational health in agriculture is broad and involves many disciplines, including not only occupational health but also parasitology, toxicology, accident prevention and primary health care, among others

Special attention is needed for the health problems of agricultural workers, who constitute some three-quarters of the world's working population. Agricultural workers face a large number of health problems, many of which arise from their work. In 1990, the National Safety Council of the United States estimated that agriculture was the most dangerous occupation, followed by mining/quarrying and construction. Many new techniques and processes are being introduced to improve efficiency in agricultural production. Workers health is influenced by their work, but also by their lifestyle, that's why it's important to pay attention to both. This study reflects upon the agricultural workers lifestyle.

MATERIALS AND METHODS

This retrospective epidemiological study involved a group of 233 agricultural workers, employed in the interval 2002-2011, in Bihor County. Agricultural workers included in this study embrace a wide range of activities including animal husbandry; planting and cultivation; harvesting and storage; transport; maintenance and repair; and construction.

Data were collected from medical sheets of employees registered on the basis of:

- Clinical examinations performed;
- Discussions on professional and unprofessional history, living conditions and symptoms present at work;
- Clinical and laboratory investigations: audiograms with ENT examination, eye examination, neurological examination, pulmonary function tests, ECG, chest X-ray, laboratory analysis;
- Other medical documents.

RESULTS

In the first phase of the study the group of employees was analyzed in terms of age and gender (Table 1.).

Table 1.

| No. | Age | No. of workers | | % | | | |
|-----|---------------|----------------|-------|----|--|--|--|
| | | Men | Woman | | | | |
| 1 | 18-29 years | 24 | 1 | 11 | | | |
| 2 | 30-39 years | 77 | 6 | 36 | | | |
| 3 | 40-49 years | 66 | 10 | 32 | | | |
| 4 | Over 50 years | 43 | 6 | 21 | | | |

Age and gender of the workers

The average period of time of working in agriculture was 15 years and 3 months.

Based on medical records of employment, the following aspect were found (fig.1):

- employees declare that they conducted hard physical activity from young ages, in both professional and non-professional environment,

- the food they eat is consistent (more than 2000 kcal/ day), high in fat and animal protein; basic meals are breakfast and dinner (usually meals were taken at long intervals),

- 40 (17.16%) employers admit daily consumption of alcohol;

- 132 (56.65%) workers admit smoking from young age, usually they smoke a pack of cigarettes per day;

- 63 (27.03) were obese. 1^{st} degree obesity is found in 15% of cases and 12% of workers suffer from 2^{nd} degree obesity (more frequently mechanics).

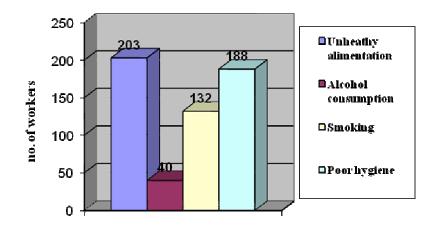


Fig.1. Poor sanitary and dietary attitudes

Regarding the detected pathology at the medical exam, besides musculoskeletal disorders (which were the majority 20.87%), there were also recorded: hypertension (11.58%), chronic obstructive pulmonary disease (5.57%), chronic liver disease (3.86%), low glucose tolerance (2.14%) (Table 2.).

Table. 2.

| Diseases registered at employment | | | | | | |
|-----------------------------------|---------------------------------------|----------------|-------------|--|--|--|
| No. | Diseases | No. of workers | Percent (%) | | | |
| 1 | Diabetes | 4 | 1,71 | | | |
| 2 | Hypertension | 27 | 11,58 | | | |
| 3 | Chronic obstructive pulmonary disease | 13 | 5,57 | | | |
| 4 | Chronic liver disease | 9 | 3,86 | | | |
| 5 | Musculoskeletal disorders | 49 | 20,87 | | | |

Out of the 233 subjects who performed and completed the employment medical examination, 219 received admission for work, two were considered "Unable temporary" (active infectious disease), and 12 were considered being partially able for work. (fig. 2).

Most cases that were diagnosed in employment had an unfavorable evolution because they require changes in employee lifestyle and active participation to treatment from the patients.

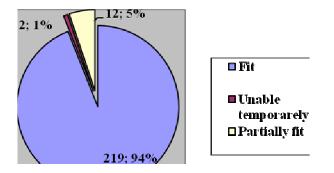


Fig. 2. Medical approvals

CONCLUSIONS

Skilled workers in agriculture have a hazardous lifestyle to their health: they eat irregularly, drink alcohol and smoke. These factors increase the risk of cardiovascular disease.

In employment, workers have been diagnosed with hypertension, lung, liver disorders and diabetes.

More than a quarter of them are obese.

Workers do not realize the danger of these diseases, so they have not collaborated with doctors in order to recover their health, by quitting vices.

References

- 1. El Batawa M. A., 2003, Health of workers in agriculture, WHO Regional Publications, Eastern Mediterranean Series 25, Cairo
- 2. Bardac D., 2004, Elemente de medicina muncii și bolile profesionale, Ed. Universitară "L. Blaga", Sibiu
- 3. Popescu G., 1992, Rolul analizei ergonomice a locurilor de muncă în cercetarea ergonomică, Revista Română de Medicina Muncii, ediția 42, 2, 170-172
- 4. Todea, A., 2000, Bolile profesionale în actualitate, Ed. Viața Medicală Românească
- 5. Tefas L, 2000, Manual de medicina muncii, Editura Medicală Universitară "Iuliu Hațieganu", Cluj Napoca
- 6. David Lighthall, 2001, The poor health of farm workers West J Med.; 175(4): 223–224. PMCID: PMC1071557
- Diaz V.A., A.G Mainous. 3rd, R.J. Koopman, M.E. Geesey, 2004, Undiagnosed obesity: implications for undiagnosed hypertension, diabetes, and hypercholesterolemia, Fam Med.;36(9):639-44.
- 8. Păuncu E. A., 2004, Medicina muncii, Editura Orizonturi Universitare, Timișoara,
- M C Alavanja, D.P. Sandler, S.B. McMaster, S.H. Zahm, C.J. McDonnell, C.F. Lynch, M. Pennybacker, N. Rothman, M. Dosemeci, A.E. Bond, A. Blair, 196, The Agricultural Health Study. Environ Health Perspect, 104(4): 362–369.
- 10. *** HG nr.355/11.04.2006 privind supravegherea sănătății lucrătorilor, publicată în Monitorul Oficial nr. 322 din 17 mai 2007