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REVIEW

Taking an Occupational History and Its Importance

Mehmet Erdem ALAGÜNEY1,*, [MD]
Ali Naci YILDIZ2, [MD]

[1] Specialist in Internal MedicineSubspecialty Fellow in Occupational MedicineDepartment of Internal Medicine, Division of Occupational Medicine
[2] Professor in Public HealthDepartment of Public Health

* Corresponding Author: Mehmet Erdem Alagüney
Address: İç Hastalıkları Anabilim Dalı, İş ve Meslek Hastalıkları Bilim Dalı, Ankara, Turkey
Phone: +905063814680
e-mail: alaguney@gmail.com

ABSTRACT

Occupational diseases are a group of illnesses that every physician will see in daily practice. A substantial part of the population is working thus the fact that their occupation plays a significant role in their illnesses or maintaining the healthy state should never be underestimated. However, there is a misper-cep-tion as if occupational diseases are just a few syndromes or a couple of chron-ical illnesses, back from the medical school. Whereas occupational diseas-es can be the cause of almost every signs and symptoms from hematologic system to musculoskeletal system or skin to central nervous system. Therefore, every physician whoever wants to diagnose his/her patient accurately must en-deav-or to recognize occupational diseases or at least be suspicious. Even though occupational diseases are a part of a clinical picture they are also a com-munity health problem. This is true because the working population make an import-ant part in the entire population. At the same time, they are more sus-ceptible to some certain risks than normal population. Yet these health prob-lems are preventable there could be excellent examples of primary prevention. Another feature of occupational diseases is the opportunity of discovering new diseas-es and syndromes. This is an undeveloped area for descriptive, analytic and ex-perimental studies. Also, the compensation laws, legal problems are be-coming a current issue and physicians are frequently asked to deliver an opinion about disability and incapacity. Misdiagnosis or delays in diagnosis of an occupa-tion-al illness may put the physician in a troublesome situation.

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INTRODUCTION

Occupational diseases are very important in clinical practice contrary to common belief. They are prevalent and has substantial burden on global econ-omy. International Labor Organization (ILO) estimates 2 million deaths due to occupational factors and 160 million non-fatal work related diseases annually. The most prevalent diseases are skin disorders, hearing loss and respiratory conditions. Studies show 4 to 10 percent of all cancers in United States [1], 14 percent of chronic obstructive pulmonary disorders [2], 15 to 23 percent of new adult asthma cases [3] are due to occupational exposures. Work related accidents and diseases result in an annual 4% loss in global gross domestic product (GDP), or about 2.8 trillion US dollars due to ILO estimations. In the European Union the amount of work-related diseases has been projected to be at least 145 billion Euros per year [4]. When these estimations were applied to Turkey there should be 150 thousand patients with occupational disease, annually. In 2013 Social Security Institution declared that there were 371 workers diagnosed with an occupational disease [5]. This huge gap de-pends on several factors of which the most import-ant one is physicians' failure to obtain occupational history sufficiently. Taking an occupational history is very important in order to make an accurate diagnosis and to give the appropriate treatment if necessary. However, it has more benefits beyond diagnosis and treatment. Firstly, a physician can diagnose and treat a patient properly,

but if the occupational history is not taken, the association between the disease and work will not be established. When the patient returns to the same workplace, disease will recur if the illness is work related. Secondly, occupational diseases are one hundred percent preventable. If the correct diagnosis of an occupational disease were made early, removing the causative factor and taking the preventive measures without giving a treatment would cure the patient. Another important consideration is, if the patient is not alone in the work-place, by taking occupational history and making connection, early diagnosis of the coworkers and primary prevention of others will be ensured. This gives the opportunity to a physician to protect tens or hundreds of people. Furthermore to diagnose a disease as occupational will cut down on health expenses and help a worker to retrieve his/her right to compensation [6].

Attitudes of Physicians About Occupational History Taking:

A patient who has a work-related illness would seek medical advice from primary care physicians. Physicians in secondary and tertiary health care centers also would see these patients. Regardless of the fact that taking an occupational history is crucial, studies shows it has been neglected by physicians. A study in US shows only 24% of physicians in pri-mary care centers ask the patients' occupation. It is 70% in students in faculty of medicine [7]. In a study in Turkey 43.9% of physicians takes no information about occupation [8]. This shows that there are problems in diagnos-ing occupational diseases. Although it is frequent, it has a substantial economic burden and has clinical importance, in the diagnostic process occupational diseases are neglected. However, Bernardino Ramazzini suggested that physicians asked patients' job in early 17th century. He said in his famous book Diseases of Workers "I may venture to add one more question: What occupation does he follow?" [6]. It seems that there are some barriers for physicians to incorporate occupational history taking into their common questions. One of the main reason is lack of knowledge about this subject. There are very few hours in medical school and residency training dedicated to occupational diseases. However it should be easy to ask the screening questions and if there is a suspicion consult or refer the patient to a specialist in occupational medicine. The most important thing is to make occupational anamnesis a routine for all physicians and after that, improving physicians in order to take a proper occupational anamnesis

How to take an Occupational Historyinitial Questionse:

very patient should be questioned regarding to his job. It must always be remembered "occupation" is a vital source of knowledge in history taking. However not only the job or title would be noted but also it must be learned what the patient is exactly doing in his or her job. After asking the job properly there are four other vital questions to take occupation-al anamnesis briefly. The first one is "Do you think your ill health can be associated with your work?". Second one is "Do your complaints change whether you are working or at home? Are there flare and relief periods with regard to work?". Third one is "Have you ever been or currently being exposed to dust, chemicals, radiation, metals, loud noise? Are you exposed to anything it may cause your ill health?". And the last one is "Do your colleagues and other people in the workplace have similar complaints?" [9].TAKING A

Detailed Occupational History:

If one or more answers are positive in initial questions suggesting occupational insults or the preliminary diagnosis is not coherent with demographic characteristics or the illness is resistant to treatment; occupational etiology should be considered and detailed occupational history should be taken. Also some diseases need special attention about occupational origin. These are anemia, asthma, acute bronchitis, chronic lung diseases, dermatitis, headache, new onset depression, neuropathy, reproductive problems and kidney problems without definitive etiology [9-10]. The components of detailed occupational history taking are virtually the detailed inquisition of initial questions.

Job History:

At first patients job, with the title and profession, should be noted. The name of the establishment, date of employment, the products and byproducts, hours of work, extra working hours and shift work should be asked. After this questions the patient should be asked what exactly he or she is doing at work [9]. As occupational diseases have long

latency periods all the jobs in patients life should be listed. But again, not only the titles and professions would be noted but the tasks and duties which the patient is performing should be questioned. It must be remembered that two persons with same titles and professions would work in different circumstances. For example there could be two engineers in the same company building tunnels. One of them may develop silicosis. Because one engineer is in administrative staff and works in the office but the other one is operational head and works in the worksite with exposure to silica dust [6-9]. In this part the pre-employment and periodic examinations should be asked too. If there are pathologic findings they must be noted. In addition to this the leave of absence times and causes must be asked [10].

Workplace Exposures:

The assessment of the exposures in the workplace is an essential part of taking occupational history. All the exposures in every job should be listed. Depending on the complaints and signs and symptoms, the physician should ask specific exposures. Metals, chemicals, dust, vibration, radiation, noise and stress in the workplace should be questioned. Caution should be taken as the exposure might be direct or indirect. For example, in the same factory a worker who is not dealing with dust may be close to the other unit working with dust and may be exposed to dust and this occupational exposure can be overlooked. The amount of exposure is also important. What kind of tasks, when, how often and how long it is done and what materials are being used should be asked in order to gain information about the amount of the exposure [6-9]. Where patients are eating, where they rest, smoking and drug use, hand washing, toilets and bathrooms and where the work clothes are cleaned should be asked. If there are pets in the workplace their health status may help determining exposures [10]. Knowledge about exposures can be acquired from occupational physician, occupational safety and health specialist and other occupational health professionals. The material safety data sheets, leave of sickness absence forms and periodic examination forms would contribute substantially [10].

Protective Measures:

The presence of preventive measures is another issue to consider when assessing exposure. Presence and quality of source control and personal protective measures will change the exposure status. In this regard, the first question is asking the patient whether there is a warning about the hazards of the workplace. After this, if there is a warning, it should be learned whether the worker is instructed about these hazards. Then the physician should gain information about general ventilation, machine barriers, local ventilation near devices, and personal protective equipment. It should also be asked if these are working properly, and the worker using it properly and regularly [6-9-10].

Timing of The Symptoms:

This information is very important because it can show causality. The physician should ask whether the symptoms are aggravated in the workplace or relieved at home or in vacations. For example, if a patient with dyspnea, wheezing and cough indicates worsening at the workplace this suggests occupational asthma. However it should be remembered if the exposure and the disease is chronic this association may disappear [9].

Similar Symptoms in Other Employees:

Even if the patient does not mention; it is important to question if other employees have similar symptoms. If the patient with occupational exposure does not suspect occupational origin he or she may not establish a connection between his or her illness and colleagues'. When as, this connection is very specific for the diagnosis of occupational dis-ease [6-9-10]. An interesting example for this is a group pf radiographers complained of malaise, itchy skins, sore eyes, cough and loss of voice. The presence of simi-lar complaints in other employees strongly suggested occupational origin. After the investigation the cause of the symptoms was found to be glass wool in the ceiling tiles used as insulation material. After removing the glass wool all the complaints ceased [11] .

Occupational Exposures:

These are hobbies, leisure time activities, and paid or unpaid second jobs. Especially woodwork, painting, welding and sculpturing are risky activities. For this reason another important question should be "Do you have another job or activity other than your present job? " [9 -10].

Environmental History:

In order to investigate other non-occupational exposures, environmental exposures should be learned. It should be asked whether there is a factory near the house or workplace and if there is pollution. Also air pollution, the heating and insulating systems of the house, the job of the spouse, the cleaning agents and pesticides used in the house should be questioned [10]. This may be important in patients with atypical presentation. A 55-year-old man with mesothelioma showed no apparent occupational cause. But then he was found to be exposed to asbestos in his childhood as his father was working in a factory making cement pipes with exposure to asbestos and bringing his clothes home for washing [11].

CONCLUSION

Occupational diseases are important and the physicians have the most important part in detecting occupational diseases. In order to find an occupational disease the physician should ask patients job. When there is a suspicion of occupational origin a proper occupational history must be taken.

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