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EDITORIAL COMMENTARY

Economic impact of primary headaches

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Headache is a public health problem of enormous scope that has an impact on the sufferer and on society [1]. Headache includes a group of disorders characterised by recurrent episodes of head pain and associated symptoms. The most common primary headaches are tension-type headache and migraine, for which a lifetime prevalence of 78% and 16% has been reported, respectively [2]. Other primary headaches, such as cluster headache, are rare, and usually affect less than 1% of the population. Tension-type headache and migraine result in important direct and indirect costs, considering that these disorders affect adults in their most productive ages of around 20–50 years.

The study of Karlı et al. [3] constitutes a cost analysis of primary headaches in Turkey based on a large sample of patients derived from a national survey. In a recent review of cost estimations of migraine per patient performed in Europe [4], only 6 studies have estimated the annual cost of migraine per patient [5–12] (see Fig. 1). The cost of migraine per patient in Turkey is considerably lower compared with other European countries, but substantial variations across countries are clearly observed (Fig. 1). The reason for this wide range lies in different methodological approaches and in different years of costing. Another factor contributing to cross-country variations is differences in the national health care systems, where for example cost constraints may lead a focus on less expensive management strategies in some countries. Some particularities are remarkable in this group of European studies. The oldest cost estimation is the Swedish study, performed in 1991 [11]. Although this study found a similar cost to the Turkey study, it is not comparable due to the year of the cost estimation and the lack of use of the International Headache Criteria (IHC). Before the Turkish study, the most recent was the German study performed in 2000 [12]. This study calculated the cost to be approximately 7 times that in the Turkish study but methodologically used gross domestic income rather than average salary levels as a basis for calculating indirect costs, which could lead to an overestimation of these costs, in contrast with the Turkish study where the estimation was based on the minimum wage. The studies from the UK [10] and the Netherlands [5] used surveys to calculate the cost of migraine per patient, as did the Turkish study. The longer recall period of 12 months used in the UK study compared with three months in the study in the Netherlands was suggested as the explanation of the high cost of migraine in the UK. Although the

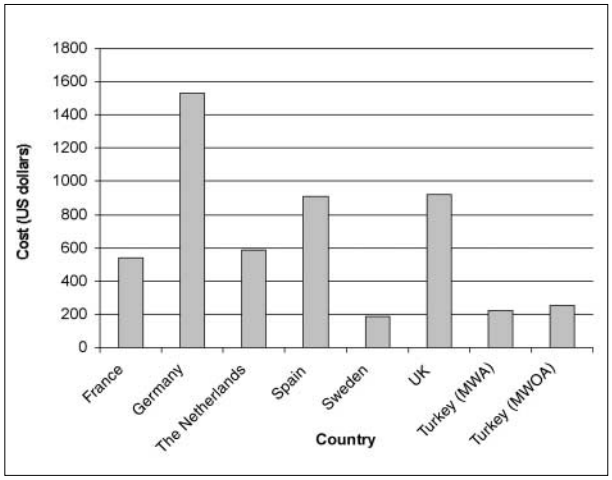

Fig. 1 Total annual cost of migraine per patient in seven European countries. *MWA*, migraine with aura; *MWOA*, migraine without aura

Turkish study used a recall of 12 months, the costs are still lower compared with these 2 countries. The high cost of migraine in these two countries compared with Turkey is probably explained due to the higher cost of medical attention rather than being related with methodological issues. Finally, the indirect costs in the Spanish and French studies were based on working population and work absence, respectively [6, 7]. In both studies it was suggested that the cost could be overestimated considering the lack of analysis of the non-working population. The Turkish study analysed working and non-working populations, with considerably lowered costs. Again the higher cost of medical attention in these countries compared with Turkey may explain the differences.

The study of Karli et al. [3] is particular in some aspects. First, the lower annual cost of primary headaches per patient is remarkable compared with other European countries. The authors mention that the lower direct cost in Turkey is based on the cheapness of the cost of diagnostic and treatment tools in Turkey and the lower tendency of Turkish patients to seek medical care. This asseveration is probably true, but other aspects are important to mention, for example the indirect cost calculation was based on the minimum wage in Turkey, being lower compared with other European countries. On the other hand, it is interesting how the Turkish population has less loss of productivity than other countries related with headache events, maybe explained by sociocultural aspects. The lower loss of productivity obviously has an impact on indirect costs of migraine and other types of headache. Finally, one of the most important contributions of the present study is the cost estimation of the different types of primary headaches. In general, it is hypothesised that the other types of headache such as tension-type headache could have higher costs than migraine, as they affect a significantly large proportion of the total population and are related to high work absence rates [4]. This hypothesis is not supported by the study of Karli et al. [3], where patients with migraine had the highest annual cost per patient compared with the other types of headache. Further investigations are required but the current study constitutes useful evidence for future research.

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