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["An Italian Court recognizes the occupational origin of a trigeminal neuroma in a mobile telephone user: a case-study of the complex relationships between science and laws"].

[Article in Italian]

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Abstract

BACKGROUND: Scientific knowledge is essential for the resolution of disputes in law and administrative applications (such as toxic tort litigation and workers' compensation) and provides essential input for public policy decisions. There are no socially agreed-upon rules for the application of this knowledge except in the law. On a practical level, the legal system lacks the ability to assess the validity of scientific knowledge that can be used as evidence and therefore relies heavily on expert opinion. A key issue is how to ensure that professionals in any field provide judges with sound advice, based on relevant and reliable scientific evidence. The search for solutions to this problem seems particularly urgent in Italy, a country where a number of unprecedented verdicts of guilt have been pronounced in trials involving personal injuries from exposure to electromagnetic fields.

OBJECTIVES AND METHODS: An Italian Court has recently recognized the occupational origin of a trigeminal neuroma in a mobile telephone user, and ordered the Italian Workers' Compensation Authority (INAIL) to award the applicant compensation for a high degree (80%) of permanent disability. We describe and discuss the salient aspects of this sentence as a case-study in the framework of the use (and misuse) of scientific evidence in toxic-tort litigations.

RESULTS: Based on the motivations of the verdict, it appears that the judge relied on seriously flawed expert testimonies. The "experts" who served in this particular trial were clearly inexperienced in forensic epidemiology in general, as well as in the topic at hand. Selective overviews of scientific evidence concerning cancer risks from mobile phone use were provided, along with misleading interpretations of findings from relevant epidemiologic studies (including the dismissal of the Interphone study results on the grounds of purported bias resulting from industry funding). The necessary requirements to proceed to causal inferences at individual level were not taken into account and inappropriate methods to derive estimates of personal risk were used.

CONCLUSIONS: A comprehensive strategy to improve the quality of expert witness testimonies in legal proceedings and promote just and equitable verdicts is urgently needed in Italy. Contrary to

other countries, such as the United States or the United Kingdom, legal standards for expert testimony, such as preliminary assessment of scientific evidence admissibility and qualification requirements for professionals acting as experts in the courtroom, are lacking in our country. In this and similar contexts, recommendations issued by professional associations (including EBEA and BEMS) could play a role of paramount importance. As examples, we refer to the guidelines recently endorsed by the UK General Medical Council and the American Academy of Pediatrics.

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