

La possibile interazione tra ambiente e fattori genetici nelle malattie lavoro-associate: il caso dell'ipertensione

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KEY WORDS

Genetics; hypertension; polymorphism; association, linkage; environment; gene interaction

SUMMARY

«Possible interaction of environment and genetic factors in work-related diseases: the case of hypertension».

Background: Cardiovascular diseases are the most important cause of death and invalidity during the course of working life. The major risk factor for cardiovascular diseases is arterial hypertension, a typical example of multifactorial and polygenic disease, involving genetic, environmental, and demographic factors. **Objectives:** A review of studies performed so far on hypertension which can be also defined as a work-related disease. **Methods:** Several studies on association or linkage analysis showed an association between genetic polymorphisms and increased risk of hypertension. **Results:** Till now no studies have identified one or more "major" candidate genes involved in the pathogenesis of hypertension. Recently the interaction between genetics and environment have attracted much interest since the genotypes predisposing for hypertension have different effects according to the patient's environment and life style. **Conclusions:** It is likely that the aspects covered in this review will, in the near future, be studied more extensively. The identification of any correlations between genes and environment will also be influenced by the accuracy in measuring environmental exposure, where the occupational physician will play a significant role.