

Piombo e cardiopatie

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KEY WORDS

Lead; hypertension

SUMMARY

«Lead and heart disease». **Background:** *The studies dealing with the relationship between cardiovascular disease and exposure to environmental and occupational chemical risks are out-dated and insufficient. However, this is not true of studies on lead.* **Objectives:** *This paper aims to investigate in particular the etiopathogenesis of the relationship between lead exposure and hypertension.* **Methods:** *The studies published in the last decade concerning both the general population and occupationally exposed subjects were reviewed.* **Results and Conclusion:** *The effects due to high levels of exposure to lead are well known and have been studied for over a century. Knowledge on the chronic effects deriving from low and long-term exposure is still very controversial but is currently the most interesting topic; in particular lead hypertension is the topic of an increasing number of studies. Chronic exposure to low levels of lead can cause hypertension via several mechanisms. The most important are: oxidative stress associated with functional NO deficiency, elevation of sympathetic activity coupled with depressed vascular and increased renal β receptor densities, activation of the renin-angiotensin-aldosterone system, rise in endothelin production, reduction in vasodilatory prostaglandins and elevation of vasoconstrictive prostaglandins.*