خلاصه آموزش کاربردی پزشکان و دانشجویان در آزمون جامعه‌پردازی سال ۱۳۹۱

مربوط به: مطالعات اخیر انجام شده در مورد سرب و بیماری‌های قلبی عروقی مورد بررسی قرار گرفت. منابع استفاده پایگاه‌های Web و PubMed و Science direct, Google scholar of knowledge

نتیجه‌گیری: درک کامل ارتباط مواجهه با سرب و بیماری‌های قلبی عروقی نیاز به تحصیلات بیشتر دارد. با توجه به با حالات مزمن آن‌گونه با سرب و نیز موقعیت بالا بیماری‌های قلبی عروقی در ایران لازم است تا ارتباط مواجهه با سرب و بیماری‌های قلبی عروقی در ارتباط‌های مختلف کلیدی: مواجهه با سرب، فاکتور آلودگی، اثرات سطحی، بیماری‌های قلبی عروقی، فشار خون بالا
The association between Lead exposure and cardiovascular diseases

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Abstract:

Background: Lead exposure is involved in cardiovascular diseases, as a major cause of mortality worldwide. This study aimed to provide an overview of the underlying mechanisms.

Materials and Methods: The recent studies regarding Lead and cardiovascular diseases are reviewed. Electronic information resources such as Web of knowledge, PubMed, Science direct and Google scholar were used.

Results: The data analysis indicated that the low level Lead exposure in long term causes a marked increase in arterial pressure by several mechanisms: an increase in the activities of angiotensin converting enzyme and kininase II, the effect on synthesis and/or release of renin, a reduction in the Nitric oxide availability and an increase in arterial resistance, the stimulatory effect on sympathetic nervous system, the alteration of adrenergic system and endothelium derived vasoregulatory factors, the dysregulation of arterial natriuretic peptide and interference with Cu²⁺ dependent signaling pathway. The other action of Lead is the promotion of oxidative stress (OS). Several studies demonstrated the association between OS and cardiovascular diseases. Lead has an effect on endothelial and vascular functions by interfering with the synthesis of some proteoglycans. Also, this metal can arouse a negative effect on fibrinolytic process and promote the growth of vascular smooth cells, which are involved in the formation of atherosclerotic plaque.

Conclusion: Further research is needed to characterize the full impact of Lead exposure on cardiovascular diseases. Considering the high levels of Lead pollution and prevalence of cardiovascular diseases in Iran, the effects of Lead exposure on cardiovascular diseases need to be included in the risk assessment of Lead exposure.

Keywords: Lead exposure, Heavy metals, Cardiovascular disease, Hypertension