Oxidative stress in the pathophysiology of cardiovascular disease. New approaches of Aneurysmatic diseases. State of Art.

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Introduction: Cardiovascular diseases are still the main cause of mortality all over the world. Ischemic heart conditions are very well know, but aneurysmatic diseases. Endothelial damage seems to be the key in this illness.

Objective. According to its importance, new risk factors and specifically biomarkers are needed.

Methods: After looking for information in several databases such us: Medline- PubMed, Cochrane and Scielo, a review was done.

Results: According literature, arterie's conditions remain at the top ten cause of death of many countries such as Cuba were 2938 defunctions were registered during 2016. This condition importance is due to asymptomatic featuring so, when pain appears usually fatal complications just like dissection or rupture are presented. Through de major factors involved in this pathology aging, male sex, hypertension and left ventricular mass index ere described. Many biochemical parameters seem to be also coinvolved: uric acid concentration, total reductive antioxidant capacity are some of them. Another proposed biomarkers are thioredoxin 1, peroxiredoxin 1 and iron. There is not still strong information about NOX4 or ROS, even though its role as a main actor in endothelial lesion through oxidative stress is very well known. **Conclusion**: Scientific community has realized about oxidative stress role according aneurysmatic diseases. Therefore, antioxidants could be an appropriate method for early diagnosis, follow-up evaluation and target therapy, but molecular studies are not still enough.

Key words: Oxidative stress, cardiovascular disease, aneurysmatic diseases