

عنوان مقاله:

Potential Role of Oxidative Stress on the Pathophysiology of Neuropathic Pain in the Inflammatory Diseases

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خلاصه مقاله:

Neuropathic pain (NP) is the outcome of lesion or disease of the nervous system, and it substantially influences the quality of life. Various inflammatory diseases such as rheumatoid arthritis (RA) and even cancer, may cause NP. Today, treatment of NP is the biggest pharmacological hurdles. Targeting inflammation is a broad task, since many mediators are involved in onset of particular disease. Among these many mediators, the reactive oxygen and nitrogen species generated by macrophages and neutrophils are of great interest because of their major contribution in development of inflammation and NP. This review will concentrate on the pathogenesis of inflammation based on involvement of reactive oxygen and nitrogen species and the activation of signalling cascades in response to oxidative stress. A systematic, and comprehensive search was conducted in the database. Based on the inclusion criteria, more than ۳۰۰ peer-reviewed publications and ۲۰۰ articles were chosen. In this review, data on oxidative stress and inflammation is compiled and discussed in the context of chronic neuropathic pain. It is suggested that oxidative stress can activate a variety of pro-inflammatory factors involved in chronic diseases. Animal and clinical evidence suggests that oxidative stress and inflammation linked to overproduction of ROS are highly likely to represent a critical factor for the development of NP in inflammatory diseases.

کلمات کلیدی:

Neuropathic Pain, Oxidative Stress, Inflammation, ROS, Inflammatory Disease

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