



# Anxiolytic and Analgesic Effect Plant in Arthritis Disease

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## Introduction

55% of patients with chronic pain have anxiety disorders, contributing reduced quality of life. Although pain and anxiety appear to be co-occurring, an analgesic or an anxiolytic compound used alone is often ineffective to reduce all symptoms. The combination therapy induces severe additive effects like nausea, vomiting, diarrhea. For these reasons, the development of analgesic compounds with anxiolytic properties could prove very advantageous for the treatment of chronic pain like arthritis.

## Analgesic

Inflammation represents a process designed to combat infection or tissue injury. It is a physiological response of a body to stimuli, including infections and tissue injury, and protects the body from these inflammatory stimuli [1]. The complex events and mediators involved in the inflammatory reaction can induce, maintain or aggravate many pathological conditions, such as bacterial sepsis, rheumatoid arthritis and skin inflammation [1]. In fact, most human diseases are associated with pain and inflammation component. That is why analgesic and anti-inflammatory drugs are among the most prescribed drugs in clinical practice [1]. Analgesic drugs act in various ways on the peripheral and central nervous systems. When choosing analgesics, the severity and response to other medication determines the choice of agent; the World Health Organization (WHO) pain ladder [2]. Analgesic choice is also determined by the type of pain: For neuropathic pain, traditional analgesics are less effective, and there is often benefit from classes of drugs that are not normally considered analgesics, such as tricyclic antidepressants and anticonvulsants [3].

## Anxiolytic

An anxiolytic (also antipanic or antianxiety agent) (Dorland's Medical Dictionary) is a medication, or other intervention, that inhibits anxiety. This effect is in contrast to anxiogenic agents, which increase anxiety. Together these categories of psychoactive compounds or interventions may be referred to as anxiotropic compounds or agents. Some recreational drugs such as alcohol induce anxiolysis initially; however, studies show that many of these drugs are anxiogenic. Anxiolytic medications have been used for the treatment of anxiety disorder and its related psychological and physical symptoms. Light therapy and other interventions have also been found to have an anxiolytic effect [4].

## Arthritis

Rheumatoid arthritis (RA) is a chronic systemic inflammatory disorder usually affecting the symmetrical bilateral joints [5]. Uncontrolled RA characterized by progressive damages of synovial, cartilage, and bone is associated, probably, with extra-articular signs [6, 7]. RA may possibly progress to severe disability with direct negative impacts on lifestyle and increase in mortality rate [8,9]. The overall prevalence of clinically diagnosed RA was 0.5–2% of the population with higher prevalence in developed countries.

## Relationship between pain and anxiolytic

Despite the progress made in medical research during the past decades, the treatment of many chronic diseases is still problematic. Inflammatory diseases remain among others one of the world's major health problems [10]. The activation of the Hypothalamic axis will ensure to provide the necessary energy substrate Support

the sympathetic response and participate in cognitive, behavioral and endocrine adaptation to the painful stressful situation [11]. This adaptive response of the HHS axis observed in acute pain (acute stress) could potentially be altered when this pain is continuous and extends over time to ultimately have an adverse effect on the body (Blackburn-Munro and Blackburn-Munro, 2001).

### Conclusion

We hope that the analgesic will have the same effects as the reference anxiolytics used.

### Acknowledgement

None.

### Conflict of Interest

None.

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