



WEB OF SCIENCE®

## ALTERNATIVES TO PAIN THERAPY IN VERTEBRAL PATHOLOGY

CIOTA Alexandra<sup>1,2</sup>, IONESCU Elena-Valentina<sup>1,2</sup>, ILIESCU M.G.<sup>1,2</sup>, MOCIU S.I.<sup>3</sup>Editor: Constantin MUNTEANU, E-mail: [office@bioclima.ro](mailto:office@bioclima.ro)

Balneo and PRM Research Journal

DOI: <http://dx.doi.org/10.12680/balneo.2021.452>

Vol.12, No.3 September 2021

p: L78

Corresponding author CIOTA Alexandra, E-mail: [alexandraciota@yahoo.com](mailto:alexandraciota@yahoo.com)

1. Balneal and Rehabilitation Techirghiol Sanatorium, , Techirghiol, Romania
2. Ovidius University of Constanta, Faculty of Medicine, Constanta, Romania
3. Ovidius Clinical Hospital, Ovidiu County, Constanta, Romania

### Abstract

Low back pain (LBP) or lumbar pain is one of the most common complaints that patients will have, and is one of the most common reasons for disability in people under the age of 45. About 60–80% of the population experience an event of low back pain, and therefore, has shown to be an impact on both the social and economic arms of medical systems. The majority of back pain episodes will be benign and may not have a definitely diagnosed cause and can often be a complex puzzle when looking for the pain generator. The goal of treatment is to decrease pain, improve function, prevent further events, and educate the patient. Most events are self limiting, however, patients who have experience one episode of back pain, are at a higher risk for repeat episodes. In approximately 40% of LBP complaints in adults, the etiology of pain can be attributed to a diskogenic origin. Causes of internal disk derangement, also referred to as degenerative disk disease (DDD), usually involve an accumulation of traumatic events ranging in severity and ultimately causing degeneration of the annulus fibrosus. Pain as a result of pressure on the spinous process is considered characteristic of diskogenic LBP. Together, these symptoms often correlate to axial back pain or lumbar sprain/strain. Although it is considered a “degenerative” or aging process, patients with diskogenic back pain often improve over time. During the acute phase of a rehabilitation program, treatment focuses on reducing pain symptoms. Lumbar epidural injection, with or without steroids, is a simple and common procedure that is frequently used to treat a variety of low back conditions. Nonradicular pain has been shown to be predictive of poor treatment response rates to epidural injection. On the other hand, patients presenting with radicular features tend to respond better, which, in turn, allows further benefit from participation in a comprehensive rehabilitation program. Importantly, most studies indicate that epidural injection is most likely to be successful in patients who have had symptoms for less than 6 months. A systematic review of comparative analysis with lumbar fusion showed epidural injections to have superior long-term efficacy in managing chronic lumbar diskogenic pain. Platelet-rich plasma (PRP) injection is another biologic therapy aimed at regenerating the intervertebral disk. This approach consists of the intradiskal injection of PRP, an autologous injectate concentrated with platelets from the patient’s own whole blood. PRP contains high levels of growth factors and cytokines, such as platelet-derived growth factor (PDGF), epithelial growth factor (EGF), and insulin-like growth factor (IGF-1). These factors promote healing by stimulating tissue repair, collagen synthesis, and angiogenesis. Physicians in specialties such as Anesthesia and intensive care (ATI), Neurosurgery, Neurology, Orthopedics, Rheumatology and Medical Rehabilitation work together to diagnose and treat the cause of pain.