Ultrasound guided intra-articular platelet rich plasma prolotherapy for therapeutic management of Temporomandibular joint disorders

Abstract

Temporomandibular joint disorders (TMDs) affect the jaw joints and related structures and includes painful myofacial problems, internal derangement of joint space, abnormalities of bony components, degenerative and rheumatologic problems. Currently, the therapeutic management of degenerative disorders of the Temporomandibular joint (TMJ) is focused on alleviating the functional pain and establishing normal range of mandibular motion in these patients. Prolotherapy is the rehabilitation of an incompetent structure, such as a ligament or tendon by the induced proliferation of cells. Platelet-Rich Plasma (PRP) is a concentrate of platelets and associated growth factors and cytokines, therefore it also promotes healing of bone and soft tissues. Thirty patients suffering from internal derangement of TMJ were included in the study diagnosed with magnetic resonance imaging. Pain was evaluated on a visual analog scale (VAS) from 0: no pain to 10: the worst imaginable pain. Induction of a pathologic noise with joint movement was assessed with a stethoscope. Maximum interincisal opening and range of lateral and protrusive movements were measured in millimeters using caliper. The patients were clinically evaluated preoperatively and postoperatively at the intervals of 1 week, 1 month, 3 months and 6 months. The clinical parameters recorded preoperatively showed significant improvement in the postoperative period. The patients had superior results regarding pain, tenderness and range of motion and inferior results in clicking. Hence it can be concluded that PRP injection is a safe and effective method in the treatment of internal derangement of TMJ.

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Biography

Nishant Singh completed his residency in Oral and Maxillofacial Surgery in the year 2009 from SRM University, Tamil Nadu, India. Currently he is imparting his knowledge as Professor in the Department of OMFS, Rama University, India. He has publications in various National and International Journals.