Intralesional Treatment Modalities for Hypermobility of Temporomandibular Joint

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Received: December 19, 2017; Published: February 27, 2017

Hypermobility of temporomandibular (TMJ) joint is one of the commonest temporomandibular joint diseases encountered in day to day clinical practice. Hyper mobility is described as a pathological entity in which the condyle moves ahead of the articular eminence on opening mouth widely. This is attributed to multiple factors like reduced muscle tension, laxity of the ligament, or abnormal shape of joint interplaying with each other with variable versatility in different patients. So different treatment modalities targeting these factors have inconstant outcome and each modality has its own therapeutic advantages and disadvantages. So hypermobility of the TMJ for long time has instigated oral and maxillofacial surgeons resulting in development of different surgical and conservative treatment approaches.

Intralesional modalities have attracted attention of clinicians and patients since long as these are day care procedures and avoid major surgeries under general anaesthesia. One of the commonly used modality is 10% Dextrose (Prolotherapy) which was first reported by Schultz in 1937. Multiple studies have supported its efficacy in clinical scenarios though most of these reports have lacked comparison with placebo. Further explanation regarding its mechanism of action is still lacking in published literature. Reports have proposed that some histological or morphological changes occur inside TMJ joint or some adhesions occur in and around the joint as result of intracap-sular injection of dextrose but still no definitive mechanism have been suggested.

Intracapsular injection of autologous blood into the TMJ is one another popular technique. Some studies have claimed it to be better than other methods. It has inbuilt advantage that the material is completely native to once own body and is sterile. But again none of the studies have explained the exact mechanism involved. Few studies on animal models have implicated the resulting fibrosis as the cause of therapeutic benefit.

Other agents described in various reports are Iodine, OK-432, tetracycline and alcohol. These all are sclerosing agents. After intralesional instillation these agents produce inflammatory response and secondary localized fibrosis. This is hypothesised to prevent decrease the joint hypermobility and decrease the chances of recurrent dislocation.

Intralesional agents are promisingbut need clinician's expertise. There is always a theoretical potential for neuro-motor or neurosensory deficits if instillation is performed erratically.

There is a need of continued research both in animal models and good randomised clinical trials to understand the therapeutic mechanism of these agents and establish clinical guidelines for their use.

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