Dislocation of the jaw joint or temporomandibular joint (Jaw Joint or TMJ) occurs when one or both mandibular condyles are displaced in-front of the articular eminence. Autologous blood injection as a treatment for chronic recurrent TMJ dislocation was first reported by Brachmann, in 1964. There is a requirement for the clinicians to follow a set guideline for such injections. Based on the clinical outcome with such patients, a management protocol for autologous blood injection for chronic recurrent temporomandibular joint dislocation is proposed.

**Keywords:** Jaw Joint, Temporomandibular Joint, TMJ, Autologous Blood, Dislocation.
lavage of the superior joint space with 200 ml of Normal Saline solution from the inflow needle to confirm the needle location in superior joint space [5]. After the lavage the second needle should be withdrawn. 3 ml of whole blood should be drawn from the patients’ antecubital fossa intra-operatively. AB should be injected following arthrocentesis procedure where 2ml should be deposited via the inflow needle into superior joint space. Remaining 1ml AB should be injected in pericapsular area followed by placed of a pressure dressing after needle withdrawal. The same procedure should be performed on the contralateral joint. The injection should be undertaken once in four to six weeks up to 4-6(maximum) injections. The patients should be instructed to minimize mandibular function post-operatively. Depending on clinical improvement, repeated injections (4-6 maximum) may be administered before considering surgery as an option.

Mechanism of Action

The aim of ABI is limiting the movement of the mandible. The mechanism of ABI occurs by formation of a local fibrous tissue in the peri-capsular and possibly I the superior joint space similar to wound healing. The injection leads to formation of adhesions in the joint cavity and induces fibrosis in periarticular tissues. However, this mechanism has not been not fully understood. Some studies claimed that the contact of cartilage surface with blood cause changes in chondrocyte metabolism leading to cartilage destruction and is debatable. The pathophysiology of ABI around TMJ resembles that of knee/elbow joint bleeding. First the capsule swells and stretches. In few hours to days, an inflammatory reaction is initiated via mediators released from neighbouring platelets, and other cells leading to swelling in the neighbouring tissues causing difficulty in motion for the joint [6-8].

Post-operative care

The patients should be advised to minimise jaw movements for 7-10 days with consumption of soft diet. Barton’s like bandage can be placed for 3 days after ABI injection. A non-steroidal anti-inflammatory (NSAID) should be avoided in the post-operative phase instead an opioid like tramadol may be used for pain management. A long term follow up of minimum one year is required to document recurrent episodes of dislocation and alter the treatment plan.

Table-1: Various conservative and surgical interventions for dislocation of the temporomandibular joint (TMJ)

<table>
<thead>
<tr>
<th>Conservative methods</th>
<th>Surgical interventions</th>
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</thead>
<tbody>
<tr>
<td>1. Restriction of the mandibular motions</td>
<td>1. Capsular plication</td>
</tr>
<tr>
<td>2. Application of local anesthetics</td>
<td>2. Reduction or augmentation of the articular eminence</td>
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<tr>
<td>3. Injection of botulinum toxin to muscles of mastication,</td>
<td>3. Temporalis tendon scarification</td>
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<tr>
<td>4. Injection of sclerosing agents</td>
<td>4. Lateral pterygoid myotomy</td>
</tr>
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REFERENCES


