

The use of an endotracheal tube in the biphasic fixation of a mandibular fracture

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Abstract

The concept of external fixation applied to the mandible describes a technique where long screws are passed through the skin, into either side of a fracture and secured in place using an external fixator. It is indicated in heavily comminuted fractures, in cases of pathological fractures or grossly infected fractures.

We present a modified version of the biphasic system in the repair of a left angle fracture in a 28-year-old male. The 3-week old fracture was heavily infected, hence external fixation was indicated. Following curettage and alignment of the fracture, two 50mm Schanz screws were placed either side of the fracture. A size 7 endotracheal tube was measured to length and perforations created corresponding to the pin positions. Acrylic resin was syringed into the prepared endotracheal tube, which was then seated, held in position until the resin was fully set and remained in place for the length of the healing period.

This technique uses readily available, cost-effective equipment. It is less technically demanding than the conventional technique as it omits the adjustable connecting rods between the pin pairs yet provides a secure framework without the bulky equipment yielding a successful outcome.

Whilst external fixation has been used in mandibular fractures, its use has diminished for several reasons. This case demonstrates that a sound practical knowledge of some of the traditional techniques holds a place in modern trauma management.



Biography:

Ayah completed her undergraduate dental training with an Honours degree from Trinity College Dublin in 2017. She then worked as an associate dentist in busy general dental practices in the UK. Her passion for complex work led her to complete

two years of postgraduate training. The first of these posts was as an Oral and Maxillofacial Surgery (OMFS) House Officer in London followed by a year in the Oral Medicine and OMFS Department in Bristol. She was involved with the Orthodontic team during these posts and conducted various projects. She has presented numerous poster and oral presentations at national conferences.

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