Posterior Auricular Approach for Decompression and Drainage of Superficial Temporal Space Infections of Odontogenic Origin

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Abstract Involvement of superficial temporal space secondary to odontogenic infections of the maxillary and mandibular teeth is not uncommon. Usually, infections of the temporal space are drained via temporal approach. Authors propose a new approach for decompression and drainage of superficial temporal space which offers an advantage of dependent drainage and hidden scar.

Keywords Space infections · Abscess · Temporal space · Maxillofacial infections

The superficial temporal space extends superiorly to the pericranium, lateral to the temporalis muscle and medial to the temporoparietal fascia (galea). Inferiorly this space is continuous with the masseteric space. There have been reports of involvement of superficial temporal space secondary to odontogenic infections in the maxillary and mandibular teeth. [1] Temporal space infection presents as a swelling in the temporal region superior to the zygomatic

arch and posterior to the lateral orbital rim [2, 3]. Usually, infections of the temporal space are drained via temporal approach within the hairline making a 45 degree angle to the zygomatic arch. The demerits of this approach remain: a non-dependent drainage site and a visible scar in patients with receded hair line. We propose an alternate incision for draining infections of the superficial temporal space through the posterior auricular approach. For draining superficial temporal space via posterior auricular approach, first a 2 cm skin incision is placed 1 cm posterior and below the superior attachment of ear pinna till the subcutaneous plane, and the dissection continues in the subcutaneous plane till the glistening white superficial temporal fascia is visualized. The superficial temporal fascia is incised in such a way that it forms a dependent port for drainage and decompression, as per the clinical need. A long sinus forceps is introduced through the skin and the incision on the fascia, between the superficial temporal fascia and the temporalis muscle directed towards the lateral orbital rim. The entire superficial temporal is explored, drained and irrigated via same incision and a corrugated rubber is secured in place (Figs. 1, 2). The length of the drain should be enough to keep the incision on the skin and the superficial temporal fascia patent for drainage. The drain should be inserted in such a way so as to keep the inner end of the drain between the temporalis muscle and the superficial temporal fascia.

The advantages offered by the posterior auricular approach over conventional temporal approach include a dependent port for decompression and drainage of superficial temporal space infections and also the surgical scar is hidden behind the ear pinna. The authors have found comparable results, recovery and healing with posterior auricular approach as with the conventional approach for drainage.

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Fig. 1 Sketch demonstrating the posterior-auricular incision and direction of insertion of sinus forceps

References

1. Lypka M, Hammoudeh J (2011) Dentoalveolar infections. *Oral Maxillofac Surg Clin North Am* 23(3):415–424
2. Andersson L, Kahnberg KE, Pogrel MA (2010) *Oral and maxillofacial surgery*, 1st edn. Wiley, Blackwell
3. Ward BB (2007) Temporalis system in maxillary reconstruction: temporalis muscle and temporoparietal galea flaps. *Atlas Oral Maxillofac Surg Clin N Am* 15:33–42

Fig. 2 Skin incision