Interventional procedure overview of
cyanoacrylate occlusion of parotid sinuses

Introduction
This overview has been prepared to assist members of IPAC advise on the safety and efficacy of an interventional procedure previously reviewed by SERNIP. It is based on a rapid survey of published literature, review of the procedure by specialist advisors and review of the content of the SERNIP file. It should not be regarded as a definitive assessment of the procedure.

Procedure name
Cyanoacrylate occlusion of parotid sinus
Synonym: cyanoacrylate occlusion of parotid fistula

Specialty society
British Association of Otorhinolaryngologists

Indication(s)
Superficial parotid gland surgery may be complicated in about 10%-15% of cases by the development of an abnormal tract (sinus) between the remnants of the parotid gland and the outer surface of the cheek.\(^1,2\) The sinus may have unwanted cosmetic effects, cause excoriation of the cheek and may also cause chronic leakage of saliva.

Summary of procedure
A solution of lipiodiol and cyanoacrylate is injected via the sinus into the parotid gland, sealing the sinus. The procedure may be repeated.

Other interventions for parotid sinus include watchful waiting, bandaging, radiotherapy, local denervation of the gland or excision of the deep parotid lobe. Excision of the deep lobe risks damaging branches of the facial nerve.

Injection of lipiodiol and cyanoacrylate may avoid the need for surgery.
List of studies identified
We found no controlled studies or case series. We identified one case report.

Summary of key efficacy and safety findings

<table>
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<tr>
<th>Authors, location, date, number of patients</th>
<th>Key efficacy findings</th>
<th>Key safety findings</th>
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<tbody>
<tr>
<td>Case Report</td>
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<td>Marcus AJ.¹ Edgeware, Middlesex, UK. 1995</td>
<td>Seven days after a second injection, 50% reduction of secretion. After four months, secretion stopped almost completely. Excoriation around mouth of sinus resolved, and fistula orifice only just visible. Patient was 'satisfied' with treatment</td>
<td>Parotitis with pus leaking from mouth of fistula. Infection successfully treated with antibiotics. Prophylactic antibiotic treatment for three weeks after second injection of cyanoacrylate prevented further infection</td>
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Validity and generalisability of the studies
The case report demonstrates the feasibility of the technique. It is not controlled and lacks power to provide any further information about effectiveness or safety.

Bazian comments
The author of the case report was contacted and is not aware of any other practitioners who are performing the procedure. He has not performed the procedure on any other patients. The request to SERNIP originated with this author.

Specialist advisor’s opinion / advisors’ opinions
Advisor was not aware of technique.

Issues for consideration by IPAC
Cyanoacrylate is used in many surgical contexts to seal abnormal tracts, such as arteriovenous fistulae, persistent ductus arteriosus and cardiac defects. Its use for parotid sinus appears to be limited to a single practitioner and a single patient.
References


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