

# NATIONAL INSTITUTE FOR CLINICAL EXCELLENCE

## INTERVENTIONAL PROCEDURES PROGRAMME

### 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.<sup>1,2</sup> 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.

## Literature review

### List of studies identified

We found no controlled studies or case series. We identified one case report.

### Summary of key efficacy and safety findings

<b>Authors, location, date, number of patients</b>	<b>Key efficacy findings</b>	<b>Key safety findings</b>
Case Report		
Marcus AJ. <sup>1</sup> Edgware, Middlesex, UK. 1995  1 case	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	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

### 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

1. Wax M, Tarshis L. Post-parotidectomy fistula. Journal of Otolaryngology 1991;20:10-13
2. Schultz PW. Subtotal parotidectomy in the treatment of chronic sialadenitis. Annals of Plastic Surgery 1983;11:459-461
3. Marcus AJ and Nasser NA. Case report: The treatment of a chronic parotid cutaneous fistula by the injection of a solution of lipiodiol with cyanoacrylate. Clin Radiol 1998; 53: 616-618.

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