Adjunctive techniques to improve access of the endoscopic prelacrimal approach to the maxillary sinus, orbital floor and infratemporal fossa
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OBJECTIVE: To determine adjunctive techniques to improve surgical access of prelacrimal approach to maxillary sinus and its surrounding areas

Ethical consideration: Clinical audit approved by Central University Research Ethics Committee of the University of Liverpool (reference 4473)

METHODS: Ten cadaver heads = 20 paranasal sinuses
Comparing surgical access with PRELACRIMAL APPROACH \(^1\) to an additional TRANSSEPTAL WINDOW \(^2\) or CANINE FOSSA PUNCTURE

Definition of surgical access
Placement of distal tip of instrument in centre of endoscopic visual field and able to open and close (Figure 1)
Instruments used:
Blakesley Rhinoforce® II straight nasal forceps & Blakesley–Wilde Rhinoforce II 45\(^\circ\) upturned nasal forceps
0 degree 4mm rigid endoscope

RESULTS:

Areas of interest:
1. Palatine Bone (PB)
2. Medial to Infraorbital Nerve (m-ION)
3. Lateral to Infraorbital Nerve (l-ION)
4. Alveolar recess (AR)
5. Zygomatic recess (ZR)
6. Ramus of mandible (RM)

Conventional pre lacrimal approach gives good access to maxillary sinus and surrounding area

- Use of 45 degrees forceps significantly improved access to ZM and AL through an additional transseptal window
- Use of 45 degrees forceps significantly improved access to ZM and AL for both prelacrimal and transseptal approaches
- No access improvement seen with additional canine fossa puncture

DISCUSSION/KEY POINTS:
- Conventional pre lacrimal approach gives good access to maxillary sinus and surrounding area
- Transseptal window and using angled instruments further improves access to orbital floor and infratemporal fossa
- Canine fossa puncture can be used as an instrument port

CONCLUSION:
Pre lacrimal approach is a good option for surgeries eg JNA, inverted papilloma.
Consider adjunct ports for more advanced work eg orbital floor repair, infratemporal fossa

Limitations: anterior wall of maxillary sinus

References: