Northern Regional Cleft Service review of the pathway for patients reporting nasal regurgitation

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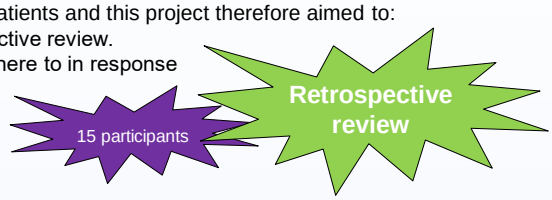
Introduction and Aims

The Northern region Cleft Lip and Palate team SLTs wanted to carry out a retrospective review of the pathways for patients who reported nasal regurgitation. This is an unpleasant and sometimes embarrassing side effect of velopharyngeal insufficiency (VPI) where food and/or drink leaks down the nose. We had noticed inconsistencies in the care pathways for these patients and this project therefore aimed to:

- Identify historical pathways for patients reporting nasal regurgitation through retrospective review.
- Inform a set of standards for assessment and treatment that the cleft team should adhere to in response to reports of nasal regurgitation.
- Generate written documents for advice and outcome measuring.



Subjects

A sample of 15 cleft non-cleft and VPI patients experiencing nasal regurgitation aged 6 to 21 years was identified. This sample was taken from audit and historical lists of patients who attended for a swallow videofluoroscopy (VF) to investigate nasal regurgitation. VF allows visualisation of the swallow mechanism and is typically a prerequisite for surgery.

Method

Retrospective review of 15 patients reporting nasal regurgitation between 2015-2019.
Level of concern, assessment and treatment for all 15 patients was recorded following case note review.

Figure 1: Patients reporting nasal regurgitation

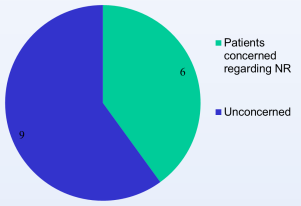


Figure 2: Assessment offered to patients reporting concerning nasal regurgitation

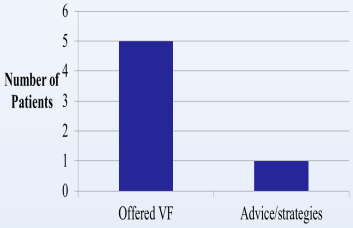


Figure 3: Results of VF assessment

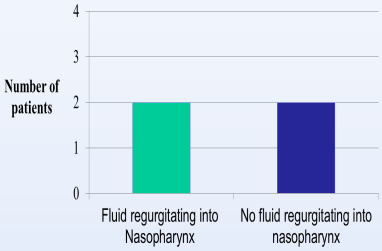
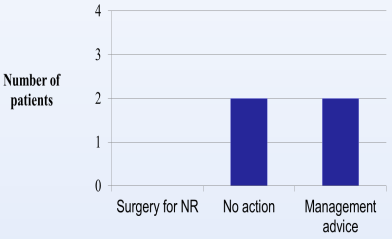
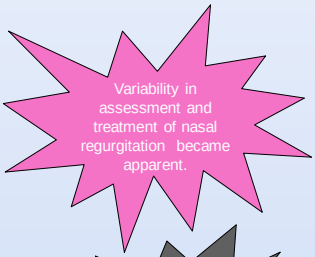


Figure 4: Treatment outcomes for concerned patients who underwent VF for nasal regurgitation



Results

- 6 out of the 15 patients who reported nasal regurgitation were concerned about it.
- Most concerned patients (5/6) were offered a VF assessment and 1 was given management advice only.
- Of the 9 who were unconcerned, 3 were listed for a swallow VF assessment, however these results were not reported so it is unclear whether these were carried out.
- 1 concerned patient had a fistula in their palate so VF aimed to establish the source of their nasal regurgitation (i.e. whether the food/drink was leaking into the nasal cavity through the palatal fistula or over the back of the soft palate)
- 4 patients underwent VF assessment primarily for nasal regurgitation and 2 were found to have fluid leaking into the nasopharynx.
- Despite these differing assessment results, treatment outcomes for the 4 patients was the same - none were offered a surgical solution.



Discussion

Nasal regurgitation can be an unpleasant side effect of VPI and/or fistulae impacting social participation, however for a lot of people it is not a significant issue (Figure 1).

All concerned patients had their concerns acknowledged and most were offered follow up to assess their nasal regurgitation (figure 2). Most were offered VF and the remainder given verbal advice. Inconsistency in assessment is apparent, however the small sample makes it difficult to form reliable conclusions.

Consistency in treatment outcomes was noted as surgery is not offered to any patients who underwent VF primarily for nasal regurgitation (figure 4). This was the case whether the problem was confirmed by VF or not (50% of cases – figure 3) and leads us to question whether VF assessment was necessary.

Our cleft surgeons report that nasal regurgitation can be a difficult condition to correct surgically. They report that surgery is effective when a fistula is the cause of nasal regurgitation because fistulae can more easily be repaired. However, surgery for nasal regurgitation resulting from VPI can have no impact and in some cases has been found to make the problem worse. Nasal regurgitation does not fall under the remit of dysphagia SLT's as it does not affect the swallow mechanism however colleagues in our Trust were able to offer some strategies to help this group of patients.

Clinical Implications

Despite being a small sample size this review supports our team's anecdotal experience that there is no clear pathway for patients reporting concerning nasal regurgitation. Furthermore VF assessment is being carried out on patients who do not have fistulae and therefore are unlikely to be offered surgery to resolve the issue. We have proposed guidelines to standardise the care pathway of this group of patients as outlined below:

1. In the absence of a fistula, no patient should be offered VF assessment for nasal regurgitation alone.
2. All of patients should be offered an advice leaflet and complete a baseline patient reported outcome measure (PROM) questionnaire.
3. All of patients given advice should be offered a speech and language therapy follow up at 6 months and asked to complete a further PROM questionnaire.

These standards have been presented for consideration to the rest of the MDT team and we await their response. Meanwhile written advice has been produced and is already being offered to relevant patients. So far the response to advice has been positive. Our plan, if the standards are agreed by the team, is to collate outcome measures regarding the benefit of our assessment and advice and to audit this data in 5 years to establish the effectiveness of the new care pathway.