Dear Jeffrey Marsh and Task Force members,

Thank you for this opportunity to share some thoughts on palatoplasty in the speaking individual with an unrepaired cleft palate.

I look forward to your helpful suggestions on what is an important and yet complex topic. Most speaking individuals with unrepaired cleft palates are found in developing nations, where cleft surgeons work in less than favourable conditions. What is considered routine procedure in well-developed referral units, may be a logistical nightmare in less developed regions of the world, where cleft care is non-existent or sporadic at best. One of the biggest hurdles that rural cleft surgeons such as myself have to face in the quest for the Holy Grail in cleft palate surgery is the absence, or paucity, of a well-developed multidisciplinary network. I would like to request your input in developing a non-biased, user-friendly solution for this complex problem, in situations where speech experts may not be readily available. To date, no agreed-upon management algorithm exists for this problem, and our discussions will hopefully help us gather some form of consensus to tackle the problem with the newly strengthened, if not monolithic, cleft palate worldview.

Although a firm believer in time tested constants, I believe there is a place for newer modifications and innovations in cleft palate surgery, albeit with some reservations about serial expert approaches to the problem.

One of the questions that comes to my mind is, “Which surgical procedure has the greatest chance of a good outcome in a situation where there is no proper speech assessment?”

Some challenges one might encounter are:

1. The large and deep nasopharynx-IVVP, fillers and other trials
2. The short or immobile cleft palate and the BMMF,FAMM flap trials (eg, Veau 4)
3. Very wide cleft palate with hypertrophied tonsils, and the occasional PR sequence with airway problems, where tight muscle approximation would aggravate the problem.
In the above mentioned cases, where one can expect poor outcomes for some presentations, one would be better off postponing such cases till a more experienced team network is ready.

The cleft palate surgeon in difficult situations more often than not, has to be a seasoned improviser, playing primarily by ear, and getting accustomed to what he sees and hears, till he gets the right technique.

Simply put, the aim in such situations is a reasonably good speech outcome, where the patient can speak in an intelligible manner to a group of listeners, preferably of the same linguistic background, since interpretations by an individual observer (the surgeon) are bound to be flawed.¹

A single treatment modality remains insufficient, and variations in surgical technique are one’s best bet in solving some of these tricky problems.

Some thoughts on constants and innovations:

1. Furlow² and IVVP³ +/- Langenbeck variants, without pushback procedures, have arguably established themselves as near true constants in palatoplasty solutions. Both these procedures have low morbidity rates, improved speech scores, and low re-operation rates. In IVVP⁴, we normally follow a more conservative route with less muscle and tissue dissection, focusing more on the levator repositioning. Success outcomes are generally good, and these procedures present an advantage over potentially airway obstructive procedures. The IVVP with its low fistula rate, user friendly variations, and reasonable learning curve, appears to be a good choice. It is also more anatomically correct in terms of levator repositioning. In fact, the procedure as a secondary solution may be a belated pointer to IVVP as a preferred primary procedure.⁵

In our work here, in Yemen Arabia, where cleft care is sporadic and not organized, we play it safe by using few neutral innovations on well-established techniques (IVVP). If the palate is of adequate length (Veau1) and the patient has normal speech, I prefer a minimalist approach with saline hydrodissection and levator retropositioning.

Our present work on minimalist palatoplasty in Yemen includes:

1. Saline hydrodissection, button hole incisions, and levator retropositioning along with 2/3 uvular retropositioning. This is modified for larger clefts of Veau 1-4.
2. A unilateral neurovascular bundle release and half meat-roll palatoplasty in stage two, where we use our hemi palatoplasty. I find this protocol necessary for wider cleft palates in latecomers.
   The blood loss is minimal (less than 10ml), and operation time short (20-25 minutes). Speech outcomes, although far from ideal are quite encouraging in our given situation and needs further improvements.
   Because of our Spartan environment, we prefer to stay safe and use shorter procedures developed here. As a result, our patients rarely face post-operative hypoxemia for long, and there has been no need for re-intubation.⁶

All patients were given extra oxygen in the ICU and monitored for several hours by our dedicated Yarimi medical team, where the bulk of the country’s smile work is done.

Over the years, we have shifted gears and opted for two stage palatoplasty over the single, lengthier procedure with its attendant risks in younger children. This is out of sheer
necessity in our large volume work in less developed regions. We would not do this in more sophisticated units elsewhere.

As a safety measure we postpone airway obstructive procedures because of poor patient compliance and inadequate facilities.

The more complicated cases are best managed by cleft networking and referral to highly specialized centres where complicated cases are done routinely. This means overseas referrals for some. Two of our patients were successfully treated by Sommerlad and South Korea Seoul (through Mulliken) for adult complicated-palate VPI. Some have benefited from this exclusive service. There is hope because late repair does not necessarily equate with bad speech outcomes.

A heterogeneous sampling of useful innovations would then be a good starter for developing cleft palate solutions. It may prove beneficial and would be anticipated by eager participants and serial experts in palatoplasty solutions.

Thanks and bon chance,

Bona Lotha
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Suggested reading:

2. Furlow palatoplasty in children Orgun Derrn MD Turkey, APRS vol 116: 1 July 2005
4. Addition of radical intravelar palatoplasty significantly improves speech outcomes and reduces re operation rate in primary palatoplasty John H Grant MD, UAB Division of Plastic Surgery ACPA 69th Annual conf, San Jose p 112, 17 April 2012
5. A protocol in the management of VPI Brian Sommerlad ACPA 69th Annual Conference p.67 April 17-21, San Jose CA 2012