The Classic to the modern experience of Puberphonia

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Abstract- The Classic to the modern experience of Puberphonia treatment provides an opportunity to explain the simple outpatient treatment available for Puberphonia, an unrecognised, underestimated, and undertreated problem. We propose a new uvula manipulation and sinus resonance training to treat it. Puberphonia treatment needs a new revision of observations on the working mechanisms of the larynx, pharynx, oral cavity, and sino-nasal cavities in phonation. If at all a non-invasive problem is noted in the laryngeal or pharyngeal structure, it can be considered a variability of structure and not a disease for treatment. We are aiming to explain that the pharynx is the organ to treat puberphonia. In puberphonia, the structure and function of the larynx, including the vocal cords, are normal. We got a good result by simply using uvula manipulation and resonance training to treat Puberphonia as a simple process that gives a good result. The voice is the result of the coordination of the whole pneumophonooarticulatory apparatus. The analysis of the voice allows the identification of diseases of the vocal apparatus and is currently carried out by an expert doctor through methods based on auditory analysis. The paper presents a web-based system for the acquisition and automatic analysis of vocal signals. Vocal signals are submitted by the users through a simple web interface and are analysed in real-time by using state-of-the-art signal processing techniques, providing first-level information on possible voice alterations. The system offers different analysis functions to the doctors, who may analyse suspected cases in detail. The system is currently being tested in an otorhinolaryngologist setting to carry out mass prevention via screening at a regional scale.

Keywords- Puberphonia. Female voice. Non matured voice. Voice break. Vibrato voice

Aim.
This article aims to give a simple and immediate treatment after trying all the good old conventional treatments and reviewing the relevant and accessible literature. On reviewing 1200 puberphonia boys, we found it is a devastating problem that is not known to the medical community or the public. The treatment should be simple because, in all puberphonia boys, the structure and function of the larynx are normal, with all organs functioning normally. Moreover, puberphonia boys get a normal voice for coughing and a few other simple voice exercises. So it clearly indicates the problem is in some other part of the vocal tract. We found out, corrected, diverted, and strengthened the airflow in the supravocal tract, and almost achieved a reasonable good result. It may pave the way for future treatment for all forms of dysphonia, including loss of speech due to loss of hearing.

Human beings are happy with what we have, and we are even ready to live with deformities that the world believes are incurable. The happiness trap refers to various false beliefs and myths we have about happiness. For example, one popular, unhelpful, and inaccurate belief is that you are defective if you are not happy. We aren’t meant to be happy all the time. We felt the problem of puberphonia is a learned helplessness, that exists in a situation in which there is no observable contingency and in which we expect that this uncontrollability will continue and behave accordingly, such as by quitting.

Origins of the Theory:
The Elephant Rope, a Motivational Story: A huge elephant can be controlled by a small thread on the leg or trunk.
fMRI show the active uvula in normal voice  
puberphonia uvula shows the inactive uvula

Uvula manipulation and resonance training

Introduction.
This article is very important. The perception of puberphonia (male talking in female voice disorder) by medical professionals and the public is the same all over the world. We are the pioneers in bringing out the true nature of puberphonia, treating it, and introducing a new concept of puberphonia. Puberphonia requires no breach of confidentiality because it is not a disease. Don't keep the puberphonia voice secret and suffer. More intensive effort is needed to address clinical issues related to puberphonia treatment.
The non-matured voice in males during puberty is called puberphonia. The masculinity in male is the breaking of voice. Puberphonia is also known as mutational falsetto, functional falsetto, incomplete mutation, adolescent falsetto, pubescent falsetto, juvenile voice, female voice, and childish voice. During puberty, there is no change or breaking of voice in males; this is called puberphonia voice [1]. The rapid changes in the human larynx during puberty are more evident in males. Such changes can result in a voice breaking, which is a sign of maturity. This is a normal phenomenon in a normal adult male voice. Puberphonia boys will have child frequency. We can also define puberphonia as persistent child voice even after puberty in the absence of an organic cause. There is no doubt that all puberphonia boys will have mature laryngeal structures. Puberphonia is the persistence of a child's voice.
Inference: Puberphonia voice in adult males is a non-breaking quality of voice. Vocal apparatus, including vocal cords, is normal in puberphonia patients. As it is normal, don’t try to modify it.

We got the idea of uvula manipulation and resonance treatment from a snoring young boy. Picture of a seven-year-old snoring boy who sounds like an adult. Endoscopy and uvula movement visualisation in snoring

This results in a change in the air flow and resonance, which is the physiological mechanism that reduces pitch. The patient can practise continuously through uvula resonance with forcible air flow from the stomach or diaphragm. The voicing can be practised at the level of the uvula by using a lower pitch continuously. Yes, we can create and give an immediate result in puberphonia voice change, but we have to maintain it and make it a habit.

Method and Material
Part 1. How we identify puberphonia
Simply identify puberphonia boys by hearing their tone of voice.

Some people prefer to diagnose themselves on the Internet with puberphonia instead of going to the doctor. Why is this trust more important than professional knowledge? Puberphonia would prefer not to share with doctors. They have many reasons: stigma, fear of judgement by the doctor, lack of sympathy from doctors in the past, or the desire to keep a secret where everyone knows each other, which some prefer to keep private. Thoughts like "What if someone else finds out?" or "I have family and friends. I have to keep this a secret" is sometimes so strong that patients choose to suffer rather than look for professional help. Many of us have a deep-rooted conviction that if puberphonia is not life-threatening, we shouldn't bother the doctor, and if it makes us feel embarrassed, we'd rather avoid the doctor. Many diseases are left undiagnosed and untreated simply because of their negative perception in society. Consequently, many patients are neglected. Modern medicine seems to have forgotten how different people can be and how individual their needs are. Rather than changing patient behaviour, the Internet has only exposed long-hidden problems. Many choose to suffer rather than share their stories face-to-face. In this state of mind, a puberphonia patient enters a tunnel of isolation and fear. What they do next is use a search engine. The answer they get is a flip of a coin, which often only increases their anxiety. 70% of the population suffers from an embarrassing illness. But should we even say "embarrassing disease"? What might be embarrassing for one person is not embarrassing at all for another. It all depends on personal experiences, environment, education, societal values, family relations, and personality type, because few people accept puberphonia and live happily. Moreover, "puberphonia voice" is their rich identity, which they earn with their puberphonia voice.

Selection and Description of Participants
We are treating puberphonia daily. We analysed 1,200 cases. All are reported directly. 13 patients had a history of thyroplasty; one case had a history of injection laryngoplasty; and 375 cases had a history of speech therapy. Only a few of the 26 patients had seen ENT surgeons; 84 had seen doctor friends. 15 cases were referred by the medical fraternity. 105 cases were referred by puberphonia-treated boys. 999 had seen social media and the internet and reported for treatment.
The treatment is in 5 parts
Part 1.
A self-administered questionnaire on the impact of puberphonia in society was used. Variables such as age, gender, religion, sex, birth order, educational qualification, occupation, income, marital status, and personal address proof such as a phone number or e-mail ID, as well as questions that arose in order to assess the impact of puberphonia, such as difficulty in talking to girls, difficulty in communication, psychological distress, different copying, family history, emotional status, and so on, were used to assess the impact of puberphonia.

Puberphonia treated clients

<table>
<thead>
<tr>
<th>States</th>
<th>Cases</th>
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<tbody>
<tr>
<td>1. Tamil Nadu</td>
<td>691</td>
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<tr>
<td>2. Pondicherry</td>
<td>24</td>
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<tr>
<td>3. Andhra Pradesh</td>
<td>72</td>
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<td>4. Telangana</td>
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<td>5. Karnataka</td>
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<td>6. Kerala</td>
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<td>7. Punjab</td>
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<td>9. Rajasthan</td>
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<td>10. Arunachal Pradesh</td>
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<td>11. Assam</td>
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<td>12. Bihar</td>
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<td>13. Gujarat</td>
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<td>14. Maharashtra</td>
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<td>15. West Bengal</td>
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<td>16. Delhi</td>
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<td>16. Bangladesh</td>
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<td>17. Nepal</td>
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<td>20. Sri Lanka</td>
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<td>21. Switzerland</td>
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<td>22. Singapore</td>
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<td>23. Malaysia</td>
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<td>25. Jharkhand</td>
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<td>27. Chhattisgarh</td>
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<td>28. Jharkhand</td>
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<tr>
<td>29. Maharashtra</td>
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<tr>
<td>30. Haryana</td>
<td>6</td>
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<tr>
<td>Total</td>
<td>1200</td>
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The procedure is done as an outpatient procedure.
Total puberphonia case treated as 1200 as of 8.7.2023

Part 2.
ENT evaluation: puberphonia patients need a detailed ENT evaluation. A stroboscope was used to obtain a visual assessment of the vocal cords. A perceptual assessment of the patient's voice was done using the GRBAS scale. The Voice Handicap Index (VHI) was developed and validated by Jacobson et al. [2]. This scale consists of judging voice quality on the basis of grade (G), roughness (R), breathiness (B), asthenia (A), and strain (S) in voice production. Assess the patient and hear the voice. On hearing the voice, the diagnosis is confirmed. Measure the patient’s frequency of speech with an Android cell phone. By demonstrating different speech frequencies, you can gain the patient's trust.

Part 3.
Treatment in the minor operation theatre—uvula strengthening and uvula activation by increasing the weight and adding more vibration by placing a thread in the uvula.
The patient was given nothing by mouth for six hours before the procedure. The selected case is taken to the minor operation theatre. The procedure was done in the supine position. Under xylocaine (10% w/v) spray surface anaesthesia, a silk thread is placed in the uvula by needling or a knot is placed at the end of the thread.

Part 4.
The ENT surgeon himself performs and demonstrates the abdominal breathing technique. The /k/ Glu/AMMA/Awww,chest voice-low frequency sound is produced through the mouth. The aim is to speak from the abdomen.
This is unvoiced, which means it is not produced using the vocal cords. The back of the tongue may articulate with the soft palate as well as K or G. Such articulations are known as velar. A puberphonia boy will gradually acquire a masculine voice. It is continued with repetition. A uvula trill is produced by humming with an open mouth, a closed mouth, or humming through the nose and sinuses. One will experience vibration in the head at the uvula and resonance at the sinuses, as well as vibration around the abdominal area and around the chest cavity [3].

Part 5.
Vibratos training.
There are lots of vibrato exercises to help you get the feeling of vibrato. But before we get into the techniques for producing vibrato, we need to set ourselves up for success. Here are a few prerequisites for finding good vibrato in the uvula.
Before we start to sing with vibrato, we must have the proper posture. Lie flat on your back. Many orators increase their pitch, volume, and timbre after hours of practise, but the voice is not spoiled. It is because they speak at the level of the uvula and not at the level of the larynx.
Vibrato Exercises
Now that we’ve found the breath variations in vibrato, let’s waver to pitch. These exercises will help you find the variation in pitch we hear with vibrato. And these vibrato singing tips will help you learn to get that beautiful shimmer in your voice. Ideally, the alternating breath will come with it, but it’s not required. Remember, don’t force it. Just be patient, and the vibrato will show up [4].
On the first day of treatment, more than half of the boys had regained their ancestral tones.
Part 6.
Low-pitched voice exercise for 5 days continuously from 10 a.m. to 6 p.m. by trained individuals.

For five days, train to speak from the uvula and practise to get used to using a low pitch. It results in lengthening the phonatory apparatus, widening the vocal tract, training abdomino-diaphragmatic respiration, and full-day, continuous training in group therapy [5]. It encourages the new puberphonia boys to learn from the early voice-frequency-changed boys. The voice should come from the soft palate, not the larynx, and should be practised continuously from morning to evening, like a drill. The exercises are designed to help one obtain the greatest possible uvula flexibility. The aim is to speak from the uvula [6].

They are: 1: Lip trills; 2: Uvula trills; 3: Resonance hums; 4: Bubbling; 5: Tongue stretches; 6: Neck rolls; 7: Sighs; 8: Yawns. 9: Snore; 10: Puff out your cheeks with air; 11: Continue to breathe in and out of your nose. 12: uvula muscular exercises for speech production; and 12: uvulavibrato training.

This is a little hard to explain through typed words. Patients can hear or feel changes during therapy. Puberphonia boys should understand the following three thoughts: 1. A puberphonia patient should listen to their own changed voice. 2. Hear the frequency of the new voice. 3. Match the frequency to your throat [7].

Part 7.
On the fifth day, the thread from the uvula will be removed. The low-pitched voice became a habit. Maintain the newly created voice for ever. Don’t force the voice; instead, create resonance. If you want to project your voice, you do not need to shout, tighten, or squeeze your diaphragm forcefully. Just release your sound by creating space in your throat and by learning to feel and create vibrations that are resonating. The diaphragm will then naturally release air into your vocal cords as you sing and speak. Air and muscle working together at the right ratio is what makes your voice sound healthy.

Also, bending from the waist down as you sing or speak will help you feel a loosening vibration, which will in turn, give you that feeling of vocal release. Once you stand upright, you can then duplicate that same sensation of resonance to project your voice.

In essence, as a speaker and singer, you want to bounce your voice out of your mouth, not yell and force it out. This is achieved by having a lower and more stable larynx and by using vowels that are shaped in a particular way to encourage resonance.

Voice lessons will teach you how to increase your resonance and project your voice in a healthy way.

Have a steady breath flow.

Try the visualisation exercise.

Imagine bringing your thinking mind down to the heart space by touching your heart. Intentionally activate a deep and personal memory you have had of empathy, compassion, integrity, passion, and purpose with someone who is close to you. Now bring these feelings to your throat by touching it or imagining them, and then speak your message with these emotions. The emotions you feel are stronger than your thinking mind, so they will inform your mind of the right words and voice tone so that you can speak from the heart.

Hand gestures while abdominal breathing tracks towards the nose?

Many people ask me what to do for abdominal breathing while treating puberphonia. Abdominal breathing with the raising of the hand; air travels along the movement of the hand. Move the free hands while speaking? Why do they make gestures that mean nothing? Does it carry air, which makes it better? Is it fashionable to make such gestures to suggest supremacy over speaking?

I will attempt an explanation as I perceive it. The hand gestures made by puberphonia boys while speaking may be understood as visual graphs of sound versus space. How do you visually explain sound? And more so, when someone's life is only as non-visual as sound, in its intricacies, how does it obtain a visual dimension? Hand gestures give visual meaning to sound. Many times, professional singers have explained singing as a play of sur or swars (notations). When striking a high note, the hand and head go high, and vice versa for a low note. That's simple to understand. But when the song is feasible, it's more about the play of throwing a word in a desired manner. This 'throw' can be perceived through the gesture. There is a treatment for each word, each line, and the entire song. The
hand-gesture thus shows the way the performer treats the work, i.e., the song. It almost objectifies sound as a playful thing.

Move the hand up above the head when you have difficulty singing or speaking or feel strain in the throat.

Discussion

We do manipulation at the level of the uvula. This, our method, is referred to by Sudhakar Vaidya et al. in their article (No reference is available except from M Kumaresan (Chennai), who published his work in the book "A Research Work in Otorhinolaryngology" in 1992) [5]. The Fast Track programme involved integrated coordination between puberphonia males, their parents, friends, and relatives. This procedure is done as outpatient training in a hospital with faster transfer to a natural ancestral speech. Primary outcomes were functional speech status and quality of life, measured through questionnaires at baseline. Outcomes were analysed using a linear mixed-effects regression mode.

The duration of voice therapy, according to Vrushali Desai et al., ranged from 1 to 10 months (average: 3.6 months) [8]. It is estimated that within four weeks of therapy, voice changes could be achieved. This time is shorter for subjects who present with vocal hyperfunction. Of the same, the subjects without hyperfunction could require more time in therapy. Regarding the duration of therapeutic progress, there are studies that show between 6 and 24 months of follow-up after speech therapy, maintaining frequency values. Regarding the choice of approach for puberphonia, most of the reviewed studies agree that the best therapeutic option is to start with speech therapy, and if this type of therapy does not provide positive results, it is possible to seek a surgical option. On the other hand, the investigations reveal that the therapy is very efficient in relation to the number of sessions, since in the same month it would be possible to obtain consistent changes in the voice. We do" uvula manipulation and resonance training" at the first instance itself, which mostly brings the desired low-pitched voice.

Puberphonia fast-track identification, treatment, building confidence, and care as habituation programmes were effective in improving those multi-trauma patients functional status and quality of life. A faster (maximum) recovery in functional status was observed as a fast track compared to other modalities of treatment. At twelve months of follow-up, 90% of boys had their natural low-pitched voice and mostly no sign of recurrence of high-pitched voice in them.

The main role of the respiratory component in sound production is to produce an outward flow of air under pressure. The /k/ sound is made through the mouth, and it is unvoiced, which means that you don't use your vocal cords to make the sound. It is defined by the position of your tongue, and it is a stop sound, which is a sound made by building up air pressure by stopping air flow and then releasing it.

Puberphonia treatment: we use this unvoiced treatment. This is similar to pronouncing LA in Tamil, by which the tip of the tongue makes a liquid movement near the uvula. Belting (or vocal belting) is a specific technique of speaking by which a puberphonia boy gets the transition area between the vocal registers. They will feel like their voice is resonating a lot around your hard palate (the roof of your mouth), cheek bones, and behind your eyes and nose. It carries their chest voice above their break, going beyond simple breathing exercises for speaking. The breath of fire breathing poses free your neck, shoulders, and spinal muscles of tension. Your breath and sound will move freely, and your core muscles will grow stronger so you can manipulate your voice.

If we try to breathe out and speak out at the same time, the pitch of our voice rises. The first is the glottic air stream mechanism, initiated by the movements of the vocal cords. It gives only sound energy to the expiration air. The speech is produced in three levels: A, U, and M, which can be modified on their way through the mouth. We can feel the "A" sound at the pharynx (Level of the uvula), the "U" sound at the level of the palate, and the "M" sound at the level of the buccal cavity. The air stream may be ingressive to produce implosive speech or aggressive to produce ejective speech. Sound filled air enters the mouth from the pharynx. It tries to attract more air from the nearby orifices in the pharynx. Vocal cord vibration produces and creates sound energy in the moving air (Bernoulli's phenomenon).

Karaoke devices enhance sound quality, and "practise makes perfect" applies perfectly well to improving one's conversation talent.

Karaoke practice (AUM) produces and creates sound energy in the moving air (Bernoulli’s phenomenon).

Air flow with limited force in a closed chamber

Air flow is abundant and forceful in open space (the pharynx).

Open throat voice, similar to drinking in the breath
Opening the throat involves raising the soft palate (velum), lowering the larynx, and assuming ideal positions of the articulators (the jaw, lips, and tongue), as well as shaping the mouth and using facial muscles. A common mistake is equating an open mouth with an open throat. I was taught to ‘inhale’ a soft, quiet ‘k’ sound. (This is kind of like the imagery of ‘drinking in the breath’ or ‘inhaling the breath’.) This technique lifts the soft palate further, separating it from the tongue, and lowers the larynx during inhalation. Holding the larynx in that lower position using the hand while training puberphonia for low-pitched voices. This is an injurious technique, as it may lead to bruising as well as malfunction of the larynx because it is being manually restrained from the outside and forced to remain in one position regardless of the pitch. An ‘open throat’ will produce a desirable sound quality in puberphonia treatment that is perceived as resonant, round, open, free from ‘constrictor tensions’, pure, rich, vibrant, and warm in tone, which prevents the tone from sounding overly bright, thin, or shrill. ‘Opening the throat’ is defined as a technique whereby pharyngeal space is increased and the vocal cords have no role in voice production.

Uvula manipulation and resonance mean you would be able to
1. Get your vocal break; 2. Expand your vocal range; 3. Improve pitch and tone; 4. Gain vocal control; and 5. Stage the talks you love!

What’s included?

Speak with a Resting Larynx. Yawning lowers the larynx. Swallowing raises the larynx.

And if your larynx is too high, the vocal cords get too pressed, and you get a squeezy and strainy vocal sound. So now that you’ve got the vocal control to sing in tune with a mix of chest and head voice, it’s time to sing with a resting larynx. Now, before we jump into the exercise, let me say this:

Getting rid of the muscle tension that keeps your larynx high takes a lot of time and practise. But one of my favourite ways to relax the larynx is to work with specific vowels that relax the voice.

What does that mean?

Well, we use uvula manipulation and resonance to raise the larynx more than others. The truth is that here are the exercises to improve and sustain vibrato and dynamics.

Pathogenesis of voice breaking in adulthood:

Voice is the result of a complex mechanism involving different organs of the pneumophonoadiculatory apparatus. Speech is produced by bringing air from the lungs to the larynx (respiration), where the vocal folds may be held open to allow the air to pass through or may vibrate to make a sound (phonation). The supralaryngeal vocal tract comprises the pharyngeal, oral, and nasal cavities. During speech production, the shape and length of the supralaryngeal vocal tract continually change, allowing the production of different sounds. The articulation can be changed by changing the air flow in the vocal tract. Articulation refers to making sounds. Articulation is defined as the act of speaking clearly, and articulation is the act of forming words and sounds [9].

Puberphonia is a dysphonia, not a dystonia. It is a dysfunctional dysphonia. In treating puberphonia, we avoid the diagnosis category "functional dysphonia" because it includes an array of medically unexplained voice disorders: psychogenic, conversion, hysterical, tension, fatigue, hyperkinetic, hypokinetic, muscle misuse, and muscle tension dysphonia. The resulting voice will be powerless. It would be inappropriate to exaggerate men's majesty, and unbroken sounds like a woman; the pitch of the voice may be too high [10].

Puberphonia may start out as a small annoyance, but it can grow into a major obstacle in your everyday life. The anxiety caused by puberphonia negatively affects work or school performance. Harming your social relationships or ability to be social by interfering with your everyday activities.

In treating puberphonia, we avoid the diagnosis category "functional dysphonia" because it includes an array of medically unexplained voice disorders: psychogenic, conversion, hysterical, tension, fatigue, hyperkinetic, hypokinetic, muscle misuse, and muscle tension dysphonia. Some cases may have secondary changes in the vocal cord, like sulcus vocalis. Although each diagnostic label implies some degree of etiologic heterogeneity, whether these disorders are qualitatively different and etiologically distinct remains unclear. We see plenty of puberphonia, and its endoscopic and various vocal tract pictures frequently reflect different suppositions, biases, and preferences. The longer length of the left recurrent laryngeal nerve, compared with the right, represents a particularly intriguing example of normal variability that has long been of interest to researchers and clinicians. The question raised is whether there are conduction times or other asymmetries that could account for the coordination of bilateral laryngeal events, such as the opening and closing of the vocal folds. It has been suggested that, as the left recurrent nerve lengthens with the descent of the aortic arch, faster fibres may be preferentially retained in the right to left
corticobulbar tract compared with the left to right corticobulbar tract. Structural differences are reflected in size, shape, and, in particular, symmetry from right to left in relation to functional abnormalities. Most of the cases had combined lesions in the vocal cord and larynx. They are the only variants in the anatomy of the vocal cord. They are not required to be corrected for puberphonia voice correction. In all these cases, without correction of the laryngeal lesion, we are able to correct the high-pitched voice to a low-pitched voice by uvula manipulation and resonance.

1. **Phonatory Gap**

2. **Vocal fold bowing**

3. **Atrophy**

4. **Vocal fold paresis**

5. **Sulcus vocalis**

6. **Infantile epiglottis**
7. Dysphonia plica ventricularis

8. Bend vocal cord

9. Different placements of the corniculate or cuneiform cartilages,
   Overriding arytenoids cartilage. Ary-epi glottis fold fore shortening.

10. Muscular tension Dysphonia:

11. Deep gutter in between true and false vocal cord. (ventriculus laryngis [Morgagnii]; laryngeal sinus)
12. One vocal cord is short

Vocal cord, arytenoid, false vocal cord, epiglottis deformities are nothing to do with puberphonia treatment. They are variants.

Uvula and variations in tongue structure are no barrier to voice change in a puberphonia patient

Bifid Uvula 123, Tongue Tie 239, Sharp tip Uvula 750 and Curved uvula 392 cases in 1200 puberphonia

Result

The results chapter or section simply and objectively reports what you found, without speculating on why you found these results.

Differential Equation Based on Newton’s Second Law as below

\[ m\ddot{x} + c\dot{x} + kx = f(t) \]

Natural frequency equation is as below

\[ f_n = \frac{\sqrt{k/m}}{2\pi} \]

Where, \( f_n = \) Natural frequency in Hz

\( k = \) Stiffness in N/m or M/mm

\( m = \) Mass in kg

Let us assume, Voice pitch of Puberphonia patient is 185 Hz when measured using a device

So \( f_n = 185 \) Hz

\( m = \) mass of uvula in kg

\( m = 5 \) milligram when measured physically

\( i.e \) \( m = 0.005 \) kg

\[ f_n = \frac{\sqrt{k/m}}{2\pi} \]

\[ 185 = \frac{\sqrt{k/0.005}}{2\pi} \]

\[ k = 170 \text{ N/mm} \] (Stiffness before treatment)
“Dr. M. Kumaresan treatment includes wrapping of thread around uvula”
By adding thread over uvula, mass of uvula has increased.
Weight of thread is assumed to be around 3milligram i.e m= (0.005+0.003) = 0.008 kg
\[ k = \frac{272 N}{mm} \] (Stiffness during treatment)
Hence, adding thread has increased stiffness by 37.5%.
But the thread wrapped around the uvula will be removed on the fourth day of treatment. Yet stiffness value will still remain.
Uvula manipulation and resonance techniques had a 98% success rate in this study. Regarding paralytic dysphonia, there have been 100 cases of unilateral cord paresis or weakness to date, and the success rate is excellent (90%+). With respect to dysphonia plica ventricularis, sulcus vocalis, there are 220 cases, and the success rate is excellent (90% +); 100 cases of bowed vocal cords have a 90% + success rate.
These days, there is a lot of confusion about what vibrato really is. In treating puberphonia, vibrato is caused by a muscular tremor in the uvula. Vibrato is caused by muscular action. It occurs in the uvula. Vibrato is caused by muscular action. It occurs in the uvula. We have shown that vibrato in speech is the result of the work-rest cycle of the muscles in your uvula for pitch, intensity, and timbre. Luckily, the uvula is similar to the tongue, and it never gets fatigued. Vibrato is natural in a few male orators and learned in the treatment of puberphonia. The gravity of the problem and its magnitude are so great that they go unnoticed, underestimated, and ignored [11]. Hormonal: a complete physical examination, Adams apple prominence, and a genital examination well done. Secondary sexual characteristics should be assessed, and hypogonadism should be ruled out. A genetic origin and family history of puberphonia are proposed. The testosterone levels ranged between 310 and 675 ng/dL [12]. It is not psychological in nature. As they are left out of society, they are considered indifferent [13]. It is not due to habitual use. They may try everything to break the voice. It has been concluded that it is not curable [14]. It is not due to anatomical reasons in the vocal cord. However, there are a lot of controversy about the usefulness of these techniques for relaxing the laryngeal muscles and their effectiveness. Some have even been found to cause damage to the vocal cords [15]. On this view, it is better to avoid any sort of therapy for the vocal cord. Puberphonia is not the result of poor parenting.
Conclusion
This article synthesises our thoughts on the enormous increase in puberphonia cases available in the world. It is poorly diagnosed and treated. On average, two puberphonias were recognised per school of 1000 boys. The number of puberphonia should be higher. The analytical centre is not able to determine the prevalence of this problem because the parents and boys never want to reveal the voice change in public because of puberphonia should be higher. The analytical centre is not able to determine the prevalence of this problem because of various social factors related to puberphonia. We have to find a new strategy to get the senses in a comprehensive and concise manner, highlighting the aetiology, prevalence, and clinical manifestation, consequences on quality of life, as well as the evolution of this approach and attitude to its treatment.

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