

Functional aphonia in young people

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Abstract

The study reviewed the case histories of 14 young aphonics. A questionnaire was completed by the five speech therapists involved with these cases. The patients were all initially examined by E.N.T. specialists and then treated by speech therapy. All the patients were 'cured' by speech therapy, that is the voice returned to its pre-morbid state. This study looks at common characteristics of presentation, different approaches to management, and the patterns of voice return.

Introduction

The term functional aphonia describes patients who present with a whispered voice on phonation and have no visible mucosal disease in the larynx. This is usually thought to have a psychological basis, and though there undoubtedly is a psychological component in some patients there may be an organic aetiology not yet identified (Bridger and Epstein 1983).

There is a paucity of published literature on functional aphonia and an even more notable absence of literature about the disorder specifically in childhood and adolescence. This is perhaps because of the apparent rarity of functional aphonia in this group, despite adolescence being a time of physical and psychological turbulence. In a study of 74 cases of functional aphonia, only three were under the age of 16 (Brodnitz, 1969).

In 1986 a review of 35 years of English literature on aphonia found only 12 reported cases under 16 (Froese and Sims, 1987). Bridger noted that only six of their 109 dysphonic patients were in this younger age group, and this study included, more broadly, dysphonia as well as total aphonia (Bridger and Epstein, 1983).

Throughout the age span from childhood to the elderly, studies report a preponderance of females presenting with functional aphonia. One study found that females are seven times more likely than males to present with this condition (Greene and Mathieson, 1989). Other studies support this finding though in some the percentage of women is even greater (Bridger and Epstein, 1983; Brodnitz, 1969; Kinzl *et al.*, 1988).

Once the diagnosis has been made with ENT investigations completed, subsequent management approaches can vary from primarily symptomatic treatment (Boone, 1983), to psychiatric referral (Wolski and Wiley, 1965), with or without voice therapy (Kinzl *et al.*, 1988). The most common approach used today offers the patient voice therapy which treats the symptoms while aiming to resolve residual emotional difficulties. The approach of demanding voice recovery in the first session seems to have originally been used in the treatment of shell shocked soldiers in World War I by Karl von Eiken (Brodnitz,

1969). This demands much of both patient and therapist, and is inconsistent with the psychogenicity of the disorder (Kinzl *et al.*, 1988).

Various therapy techniques are mentioned throughout available literature from voice facilitation, vocal education and hygiene programmes to stress management and relaxation. Therapists have a wide pool of techniques to draw on and tailor to the particular patient's needs. The subsequent duration and success of the treatment can be measured objectively; success is considered to have been achieved when the voice returns to its pre-morbid state. The return of the voice may be gradual or an 'overnight cure'.

The study

This study reviews data gathered from 14 cases of children and adolescents up to the age of 18 presenting with functional aphonia. Each was treated by one of five therapists experienced in working with voice disorders. The areas studied were:

1. the common characteristics in presentation,
2. the ratio of sexes,
3. evidence of any apparent reason, precipitating factors, or events connected with the problem,
4. duration of therapy,
5. techniques used in therapy, and
6. patterns of voice return.

Materials and methods

Details of 14 cases who were treated by five speech therapists were reviewed following discharge from speech therapy. All the cases were referred by their GP to ENT departments for laryngeal examination. All presented with functional aphonia and were referred from ENT to speech therapy. Data was gathered for this study from a questionnaire, (see Appendix), completed by the therapist about each of the patients they had treated. Therapists were asked for information about:

- ENT, medical and voice history.
- personal, family, and social background noting any

particular significant circumstances apparently relating to the aphonic episode and — pattern of recovery of the voice, with comments about the techniques used.

Results

Characteristics of the patients

On indirect laryngoscopy all patients had a larynx that appeared normal at rest, though three had a reddened area on the vocal folds. However when asked to phonate the folds failed to adduct completely. Upper respiratory infections either prior or at the onset of the aphonia were common to 11 of the 14 patients, and three were known asthmatics receiving medication.

No patient had any other relevant medical history but four patients had presented with additional functional symptoms noted by their GPs: two with severe headaches, one with irritable bowel syndrome and one with panic attacks.

Three patients had suffered a previous aphonic episode. One child had a history of shouting excessively leading to vocal abuse but on examination this was not considered to be the cause of the presenting aphonia.

Special circumstances were related to the aphonic episode in some cases. These included bereavement, a road traffic accident, parental separation, and poor family relationships with sibling rivalry.

Of interest were two separate pairs of friends, who presented at similar times. For each pair a teacher known to both patients had been suffering from voice difficulties and appeared to have been used as a model. Additionally both friends in one pair mentioned that a star in a popular soap opera had recently been aphonic in the programme. It was notable that half the group showed apparent unconcern about their difficulties, despite aphonia being socially very limiting. One patient had learned to use illness to get attention, and refused to carry out exercises if they appeared to work.

Outcome of treatment

All 14 cases were considered cured by patient, therapist and ENT consultant with speech therapy alone. The dura-

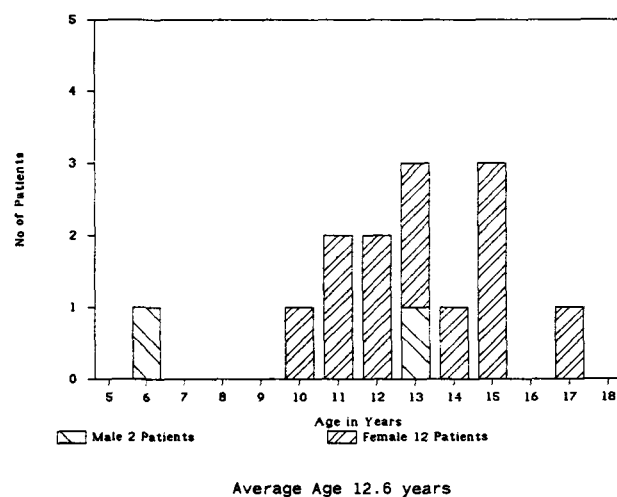


Fig. 1 Age and sex distribution of patients.

tion of treatment varied from one session to over six months, with a maximum of 12 months (Fig. 2).

Techniques used in therapy

Counselling played an important role in the management of these patients. Most therapists treated the child and then involved the family at the end of each session. Some found it useful to contact the school for additional history information and to achieve further carry over from therapy.

Sometimes getting the first voiced sounds may be very difficult. Typically while the young people are voiceless they seem to have completely forgotten how to produce voice, therefore the initial voice facilitation is extremely important.

The therapists in this study all noted the need to use a wide variety of therapeutic techniques and approaches.

These included a foundation of good vocal habits, that is avoiding misuse and abuse of the larynx, keeping the throat well lubricated, reducing excessive throat clearing, and avoiding irritants such as smoke or chemicals.

Tension control techniques combined with a positive approach of encouragement and praise were generally used.

Auditory and visual feedback were useful.

One patient, after other methods had been tried and failed over several weeks, was given Valium by injection but failed to regain voice in spite of this sedation. This was not tried on other patients in this group, but the practitioner had had success with this technique in the past.

Patterns of voice return

Three patterns emerged in the way the voice changed as it returned. In seven cases there was a gradual improvement returning steadily to normal. In three cases a gradual improvement ended in a sudden return, while in four cases a sudden total return was noted.

The pattern of gradual improvement typically included passing from an aphonic whisper to a high pitched squeak and husky voice with fluctuations in phonation. The voice became more consistent as it became more appropriately pitched and the huskiness decreased. One patient was noted to have an episode of stammering as voice was regained during a three week period.

Discussion

In considering the results of this study some particular features of presentation and treatment are of interest.

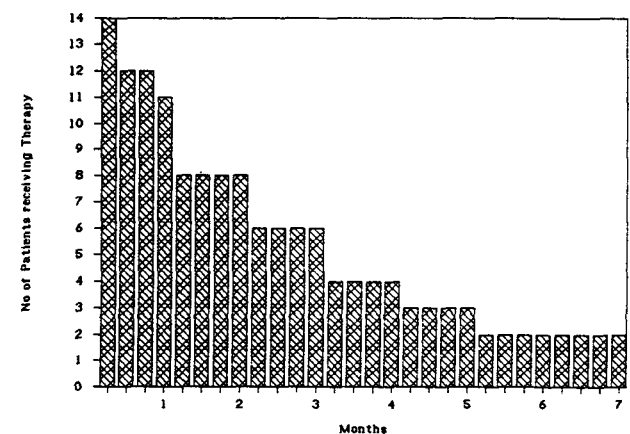


Fig. 2 Duration of treatment.

The ratio of the sexes, with the greater number of females presenting in this young group is similar to the ratios found in the adult population of aphonics. No satisfactory explanation for this high ratio of females has been made as yet (Greene and Mathieson, 1989).

Three of the 14 cases had suffered a previous episode of aphonia. It would be interesting to see if in the future any of the group have further voice problems. One paper suggests there may be an underlying neurosis that might respond to psychiatric treatment (Brodnitz, 1969). No therapist had made a psychiatric referral here, though all patients were cured. Arguably when a second aphonic episode occurs psychiatric referral should be considered. This is an age of psychological turbulence and needs to be treated sympathetically. Alternatively this group may be particularly vulnerable in some way as yet unidentified to the physiological changes of a laryngeal infection or disturbance. Investigation of hormonal imbalance and whether this is an element of the problem would be of interest.

From therapists comments about therapy techniques it is clear that a combination of both symptomatic and psychological approaches were favoured, with no therapist focusing solely at either end of the scale.

Prior to the study we had a clinical impression of many therapists aiming for and anticipating cure during the first treatment session. Only two of the group regained normal voice at this point, with 50 per cent of the group needing therapy for more than two months, a much longer treatment duration than expected. We had also anticipated a greater percentage than we found to have a sudden rather than a gradual return to normal voice: the 'overnight cure' occurring only in 30 per cent of cases. Both the duration of treatment times and the patterns of voice return demonstrate the need for tenacity and motivation from both patient and therapist.

Therapists made the observation that half the group seemed apparently unconcerned about the problem, though to be voiceless is a major social handicap. Froese and Sims also comment on this 'curious detached attitude' and suggest 'this is undoubtedly due to the secondary gain the handicap provides' (Froese and Sims, 1987).

Conclusions

There is a preponderance of females presenting with aphonia among young people. In treating aphonia Speech Therapists used a combination of symptomatic and psychological approaches. Only speech therapy was used, and the treatment was successful in all cases. Fourteen per cent of the study patients regained voice during the first treatment session, but half of the sample needed therapy for more than two months. The voice returned suddenly in 30 per cent of the cases, but in the remainder there was a slower recovery.

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Key words: Voice disorders, functional aphonia

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APPENDIX

The questionnaire to the speech therapist who treated each patient asked the following questions about the patient.

General

- Age and sex of patient.
- Any known previous voice problems.

ENT

- Examination results.
- Laryngoscopy observations.
- Did the patient present with:
 - recurrent sore throats,
 - laryngitis,
 - asthma,
 - hyperventilation,
 - allergy,
 - earaches,
 - hearing difficulty,
 - post nasal drip,
 - reflux oesophagitis.

Medical

- Medications.
- General Health.
- Operations.
- Illnesses.

Personal circumstances:

- Any that may have influenced the aphonic episode.
- Observations of general personality traits, e.g. quiet, withdrawn, passive, outgoing, manipulative.
- Patients attitude to aphonia.
- Family/school attitude to aphonia.

Treatment

- Length of time from onset to return of normal voice.
- Pattern of return of voice:
 - sudden/gradual
 - Changes during return if gradual:
 - e.g. aphonia → squeaky whisper → husky → normal voice.
- Were any particular therapy approaches found to be useful?
- Other comments: