

A CASE OF HYSTERICAL DEAFNESS AND ITS MANAGEMENT

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Psychogenic deafness (Fowler, 1959), or nonorganic ('functional') hearing loss (Chaikh and Ventry, 1963), or pseudohypoacusis (Goldstein, 1966) can be broadly divided into hysterical, or conversion, deafness and malingering. The former is marked by the fact that the patient believes that he or she has a genuine hearing loss, or that the moderate loss of hearing he or she has is a really serious one (functional 'overlay' on organic deafness). The hysterical patient is not trying to 'fool' anyone and is perfectly willing to cooperate in a test situation.

The malingerer, on the other hand, knows the true state of his or her hearing and deliberately tries to deceive the examiner. His or her attitude during a hearing test may range from one of suspicion to that of outright belligerence. Nevertheless, he or she has to cooperate in the test situation in order to maintain the role of a hearing-handicapped individual (Newby, 1965; Sonenshein, 1970).

Gleason (1958), in a study of 278 military personnel with nonorganic hearing loss, found that a deaf patient who is inconsistent on audiological testing is likely to be deviant psychologically but may not necessarily be psychiatrically ill. Fifty five per cent of the subjects studied were judged to be emotionally immature and thirty per cent neurotic.

Cohen *et al.* (1963), from a study on two groups of servicemen for nonorganic hearing loss, concluded that individuals who present inconsistent responses in hearing tests may be influenced by psychodynamic factors.

Beagley and Knight (1968) stated that hysterical deafness is rare but does occur and can be diagnosed if careful attention is paid to the diagnostic criteria. They summarised twenty one cases of nonorganic hearing loss and specified one case as fulfilling all the criteria of a psychiatric background.

Recently the problem of psychogenic or functional deafness has been surveyed by Bregulla (1970), Denmark (1971), Hansen (1972), Jahn (1972), Velmans (1973), Vernon (1973) and Pankratz *et al.* (1975).

The following case is discussed because of its interesting presentation and management.

CASE REPORT

M. S., male, aged 40, (C. R. No. 433 and I. C. No. 27106) reported to the

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ENT Outdoors of the Dayanand Hospital, Lxidhiana, Punjab on 8.1.75 with the complaint of profound bilateral deafness since 23 days.

History of the Present Illness: The patient had sustained a mongoose bite on his left foot on 29.11.74. Following the bite the patient had pain in and bleeding from the wound. The next day he attended the Civil Hospital, Ropar. There he was advised to take anti-rabic treatment. When the patient had been given twelve injections he felt his head was heavy and developed irritation in his ears. Three days later he became completely deaf. Going into more details during the history-taking the authors came to know that the patient used to meet some other person who had been bitten by a dog and had also been taking anti-rabic treatment from the same hospital. After the patient had taken six injections he noticed that his companion was missing. When he enquired about him the doctors told him that the other person had been referred to Chandigarh as he had developed rabies. After another six days the patient came to know that the person had died there. The patient was then very much alarmed as he felt that he might not end up in the same way. He narrated this incident to everybody at home and wept. After this he developed complete loss of hearing in both ears.

Past History: There was no history of diabetes, tuberculosis, hypertension or any CNS disturbance, nor of any psychiatric problem in the past.

Family History: The patient had his father and mother alive and had six children, three sons and three daughters. He lived in a joint family. There was no history of family disharmony.

Personal History: He was a farmer. He was not addicted to alcohol, tobacco or opium.

General Physical Examination: The patient was moderately built and moderately nourished. He had no anaemia, cyanosis or lymphadenopathy. His pupils were normal and reacted to light. His B. P. was 120/80 mm. Hg., and his pulse was 70/minute and regular with normal volume and tension. Heart and Lungs: NAD. Higher functions were normal except that the patient was unable to hear at all.

Psychological Examination: The patient gave a blank look and was irresponsive to any noise or command.

E.N.T. Examination: This revealed no physical abnormality of the external ear or eardrum on either side. Both drums were normal in appearance and were mobile. Nose and throat were normal.

Hearing and Caloric Tests: No response to any of the classical hearing tests was elicited. There was no bone conduction response when the butt of the tuning fork was applied on his mastoid cortex or vertex. Tuning fork of 256 Hz produced response of 'bone vibration sense' (skin sensation) only in both ears, whereas there was no auditory response to tuning forks of higher frequencies. Vestibular reactions were normal to hot and cold water caloric stimulation.

Audiological Examination: The first test was done on 8.1.75. In all, three tests were done, all of them with an Arphi Audiometer, Model 700 MK IV. The audiometer had been periodically calibrated objectively. The testing was conducted in an adequately sound-proof room.

The first test elicited no response to either AC or BC even at 115 dB and 65 dB respectively. When however a wide-band masking burst of 100 dB was introduced, first in his right ear and then in his left, eye blinking and localization responses were noticed. There was no response to speech even at the highest level available on the audiometer.

Because the patient responded to masking noise at 100 dB a re-test was done after one hour when he was explained that the machine (the audiometer) would clear the blocks in his ears and help him to improve his hearing. In his right ear the hearing loss again ranged from 70 to 90 dB, the loss for speech being 45 dB. In his left ear the hearing loss ranged from 75 to 100 dB and the loss for speech was 60 dB. Once again his responses were inconsistent.

A third test was carried out on 9.1.75. In this test the average loss through speech frequencies was 50 dB in each ear. However SRT's were 25 dB and 15 dB in his right and left ears respectively. During the same test the following remarkable observations were made:

1. The patient could hear pure tones both in the right ear and left ear through earphones even at 45 dB and 50 dB respectively but could not hear them through the bone conductor even at 60 dB (when the earphones had been removed). But with the earphones replaced along with the bone vibrator the patient could hear pure tones through the bone vibrator even at 15 dB in both ears.

2. The patient could hear conversation with the earphones on even after the audiometer had been switched off but could not respond to conversation when the earphones had been removed.

Because of these intra- and inter-test variables and a large detected discrepancy through the speech frequencies functional hearing loss was suspected.

Summary of Course of Treatment

Session I

10-1-75

The patient was taken to a sound-treated room and earphones of the audiometer were placed over both his ears. A wide-band masking noise of 100 dB intensity was introduced in his right ear for two minutes and then for an equal period in his left ear. There upon the patient described that he felt some 'water bubbles' were in both his ears which were blocking them, thereby preventing him

from hearing any sound, but that after the treatment with this (masking) sound some of the 'bubbles' seemed to have been removed. On this the audiologist signalled to him in the affirmative.

After an interval of about five minutes the above procedure was repeated but with the employment of 70 dB intensity wide-band masking noise. The patient told the audiologist that he could hear this sound and his ears were being cleared of the 'water bubbles'. The treatment session was terminated at this point.

Session II

11-1-75

The attendant of the patient reported the next day that the patient had been trying to listen to the radio that morning. The patient also reported that he could hear the radio when turned on to its full volume.

The patient was again given the wide-band masking noise treatment for two minutes to each ear, but at 50 dB level intensity, and then after an interval of five minutes at 40 dB intensity. After this speech was introduced at 50 dB level intensity alternately in each ear. The patient responded well and was overjoyed at this. The patient was assured that he would be all right after the next session.

Session III

13-1-75

The patient looked cheerful and happily told the authors that his hearing was normal. He could hear the conversation in the house where he had been staying and there were no 'water bubbles' left in his ears. The authors told the patient that his hearing seemed to be normal and wanted to confirm this with the machine (audiometer). The patient's audiogram and **SRT** were taken and found to be within normal limits.

Follow up (1) after one month.

Audiogram and SRT showed clinically normal hearing.

Follow up (2) after five months.

Audiogram and SRT showed clinically normal hearing.

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