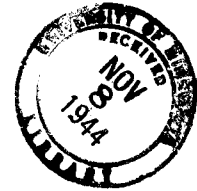


M

Staff Meeting Bulletin
Hospitals of the » » »
University of Minnesota



Hearing Loss

STAFF MEETING BULLETIN
HOSPITALS OF THE . . .
UNIVERSITY OF MINNESOTA

Volume XVI

Friday, November 3, 1944

Number 4

INDEX

	PAGE
I. CALENDAR OF EVENTS	63 - 64
II. HEARING LOSS	
. Eugene F. McElmeel and L. R. Boies	65 - 72
III. GOSSIP	73

Published for the General Staff Meeting each
week during the school year, October to May.

Financed by the Citizens Aid Society,
Alumni and Friends.

William A. O'Brien, M.D.

I.

UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

CALENDAR OF EVENTS

No. 45

November 6 to November 11

Visitors Welcome

Monday, November 6

- 9:00 - 10:00 Roentgenology-Medicine Conference; L. G. Rigler, C. J. Watson and Staff, Todd Amphitheater, U.H.
- 9:00 - 11:00 Obstetrics and Gynecology Conference; J. L. McKelvey and Staff, Interns Quarters, U. H.
- 12:30 - 1:30 Pathology Seminar; Diagnosis of Alcoholism from Examination of the Blood; Goodwin Joss, 104 I. A.
- 4:00 - Public Health Seminar: Health Education; William A. O'Brien, Women's Lounge, 6th Floor of Health Service.
- 8:00 - Enzymes Seminar; Dr. Tsuchiya: "Steady State", John Reiner; Room 214 M. H.

Tuesday, November 7

- 9:00 - 10:00 Roentgenology-Pediatrics Conference; L. G. Rigler, I. McQuarrie and Staff, Eustis Amphitheater, U. H.
- 11:00 - 12:00 Urology Conference; C. D. Creevy and Staff, Main 515, U. H.
- 12:30 - 1:30 Pathology Conference; Autopsies; Pathology Staff, 104 I. A.
- 4:30 - 5:30 Obstetrics and Gynecology Conference; J. L. McKelvey and Staff, Station 54, U. H.
- 4:00 - 5:00 Pediatrics Grand Rounds; I. McQuarrie and Staff, W-205 U. H.
- 4:30 - 5:30 Ophthalmology Ward Rounds, Erling Hansen and Staff, E-534 U. H.

Wednesday, November 8

- 9:00 - 11:00 Neuropsychiatry Seminar; J. C. McKinley and Staff, Station 60, Lounge, U.H.
- 11:00 - 12:00 Pathology-Medicine-Surgery Conference; Carcinoma of Left Pleura; C. J. Watson, O. H. Wangensteen and Staff, Todd Amphitheater, U.H.
- 12:30 - 1:30 Pediatrics Seminar; Malaria in Children; Dr. Costanoda, W-205 U. H.
- 12:30 - 1:30 Physiological Chemistry Literature Review; Staff, 116 M. H.
- 12:30 - 1:30 Pharmacology Seminar; Wucheria Bancrofti Clinical Treatment; Elizabeth M. Cranston, 105 M. H.
- 4:30 - 5:30 Neurophysiology Seminar; Response of Single Auditory Nerve Fibers to Acoustic Stimulation; Lester Erickson; 214 M. H.

Thursday, November 9

- 9:00 - 10:00 Medicine Case Presentation; C. J. Watson and Staff, Todd Amphitheater, U. H.
- 12:30 - 1:20 Physiological Chemistry Seminar; Spectrophotometric Studies of Proteins and Nucleic Acid; Kenneth Tsuboi; 116 M. H.
- 4:30 - 5:30 Ophthalmology Ward Rounds; Erling Hansen and Staff, E-534, U. H.
- 5:00 - 6:00 Roentgenology Seminar; Observations on Acute Obstruction of the Colon; Clarence Dennis, M-515 U. H.

Friday, November 10

- 9:00 - 10:00 Medicine Grand Rounds; C. J. Watson and Staff; Todd Amphitheater, U.H.
- 8:30 - 10:00 Pediatrics Grand Rounds; I. McQuarrie and Staff, W-205 U. H.
- 10:00 - 12:00 Medicine Ward Rounds; C. J. Watson and Staff; East 214 U. H.
- 10:30 - 12:30 Otolaryngology Case Studies; L. R. Boies and Staff, Out-Patient Otolaryngology Dept.
- 11:45 - 1:15 University of Minnesota Hospitals General Staff Meeting; Renal Damage due to Sulfonamides; W. W. Spink and W. H. Hall, Powell Hall Recreation Room.
- 1:30 - 2:30 Medicine Case Presentation; C. J. Watson and Staff, Eustis Amphitheater, U. H.
- 1:00 - 2:30 Dermatology and Syphilology; Presentation of selected cases of the week; Henry E. Michelson and Staff; W-306 U. H.
- 1:30 - 3:00 Roentgenology-Neurosurgery Conference; H. O. Peterson, W. T. Peyton and Staff, Todd Amphitheater, U. H.

Saturday, November 11

- 8:00 - 9:00 Surgery Journal Club; O. H. Wangensteen and Staff, Main 515, U. H.
- 9:15 - 10:30 Surgery-Roentgenology Conference; O. H. Wangensteen, L. G. Rigler and Staff, Todd Amphitheater, U. H.
- 9:00 - 10:00 Medicine Case Presentation; C. J. Watson and Staff, Main 515 U. H.
- 10:00 - 12:00 Medicine Ward Rounds; C. J. Watson and Staff, E-214 U. H.

II. HEARING LOSS

Eugene F. McElmeel
L. R. Boies

Introduction

Hearing is the most commonly impaired of the five senses ordinarily attributed to man. The cochlea, which is the last sense organ to develop apparently has the least recuperative powers and is more frequently damaged by trauma, toxins, etc.

Partial loss of sight is of greater concern than partial hearing loss; the latter, however, probably creates more economic waste.

The hard of hearing are retiring and tend to conceal their handicap. In the past it has been customary to refer to all persons who have an impairment of the function of hearing as "deaf." For psychological reasons there is now a tendency to employ the term "deaf" only in cases of extreme loss, while the term "hearing defect" or "hearing impairment" is applied to the milder forms.

Types of Hearing Loss

Hearing loss is of two general types. One is the conduction type, and the other the perception type. As the names imply, the conduction type is one in which there is some interference with the mechanism which conducts sound from the outside through the external auditory canal, the tympanic membrane, and the ossicular chain of the middle ear to the foot piece of the stapes in the oval window; perception impairment indicates defective function somewhere in the end organ or cochlea which includes the peri- and endolymph, organ of Corti, and cochlear division of the VIII cranial nerve.

Conduction type of hearing impairment may be caused by the following:

1. Obstruction to the passage of sound waves through the external auditory canal which may result from congenital deformity, impacted cerumen or obstructing foreign body, obstructive edema of the

canal wall due to trauma, or infection such as otomycosis, etc. The impairment is usually not marked but definite.

2. Abnormalities of the tympanic membrane such as marked thickening, retraction, scarring or perforation. Usually when there has been a marked change in the tympanic membrane, there is also an abnormal middle ear condition which is a factor in the hearing impairment such as:

3. Pathological change in the middle ear which interferes with the mobility of the ossicular chain. This may be in the form of a fixation of the ossicular joints, adhesive bands which tend to interfere with movements of the ossicles, secretions, granulations, etc.

4. Pathological change in the capsule of the labyrinth causing a fixation of the stapes in the oval window, a condition known as otosclerosis.

The mechanism of the impairment in the first three groups is obvious. The causes of these conditions are understood. The condition mentioned in the fourth group and known as otosclerosis is of a different character and is less thoroughly understood.

Perception or nerve type of hearing impairment may be caused by:

1. Toxic neuritis of the acoustic branch of the VIII nerve. This may occur in mumps, influenza, diphtheria, diabetes, etc. Mumps is a common cause of unilateral deafness.

2. Certain drugs and poisons. It is now believed that quinine and the salicylates may cause degeneration of the nerve cells of the spiral ganglion. Alcohol is said to cause a degeneration of the hair cells of the spiral ganglion. Tobacco is also toxic to some. Arsenic, lead, mercury, etc. are known to cause hearing impairment.

3. Meningitis. Meningococcic meningitis or that which may complicate influenza, scarlet fever, or measles, may cause a loss of one or both parts of

the internal ear, namely the cochlea and semi-circular canal function, by destruction of the nerves, nerve ganglia, or structures of the labyrinth.

4. Trauma. Blows or falls which produce concussion of the labyrinth, fractures of the base of the skull which, if transverse, may injure the bony and membranous labyrinth, and exposure to gun fire and other loud noises are common causes of traumatic deafness.

5. Senility. There is a physiologic loss of hearing for the high-pitched tones as age advance. This is known as presbycusis. It is due to arteriosclerotic and degenerative changes and consists of an atrophy of the ganglion cells, changes in the hair cells and in the blood vessels of the acoustic nerve.

6. Some unknown etiologic factor. Patients are encountered in otologic practice who have developed a progressive nerve deafness for which no definite etiologic factor can be found. An idiopathic atrophy of the cochlear nerve has been suggested as a cause, or an otosclerosis of an atypical form without stapes fixation. There may in these cases be a positive family history of deafness.

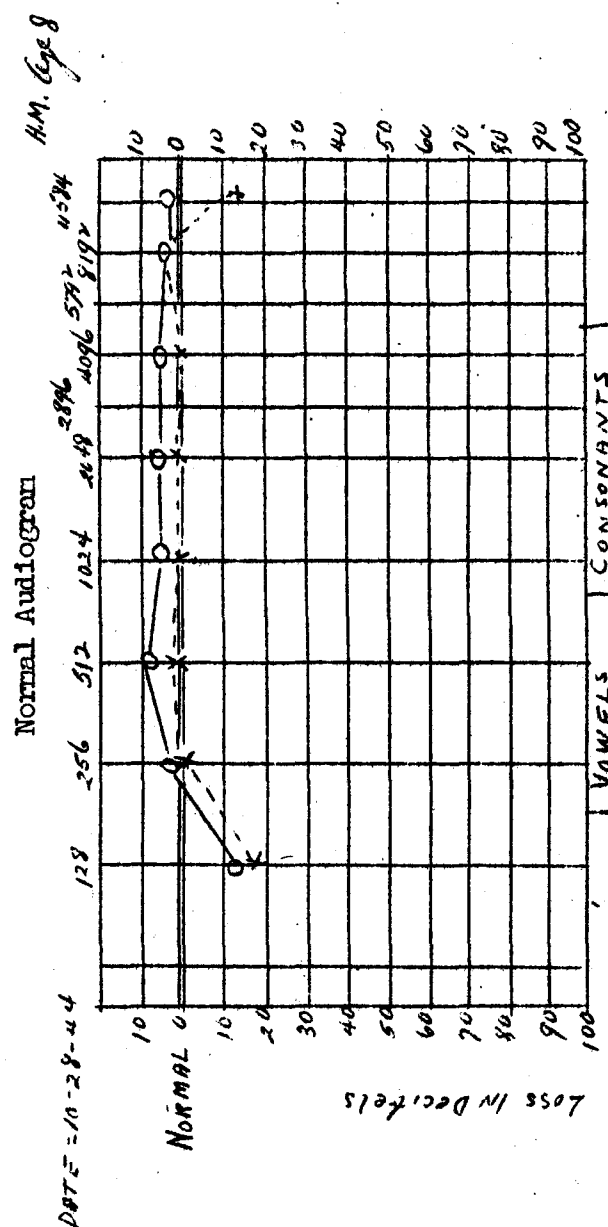
The Testing of Hearing

A diagnosis of hearing loss is easily made by applying some simple tests. It is not within the purpose of this discussion to consider the various methods of testing in detail. The most widely used method of testing among otologists is to plot a hearing curve for each ear on an electrical audiometer. This instrument generates approximately pure tones which can be varied in pitch and intensity. A range of octaves and semi-octaves from 128 to 11,584 double vibrations is produced.

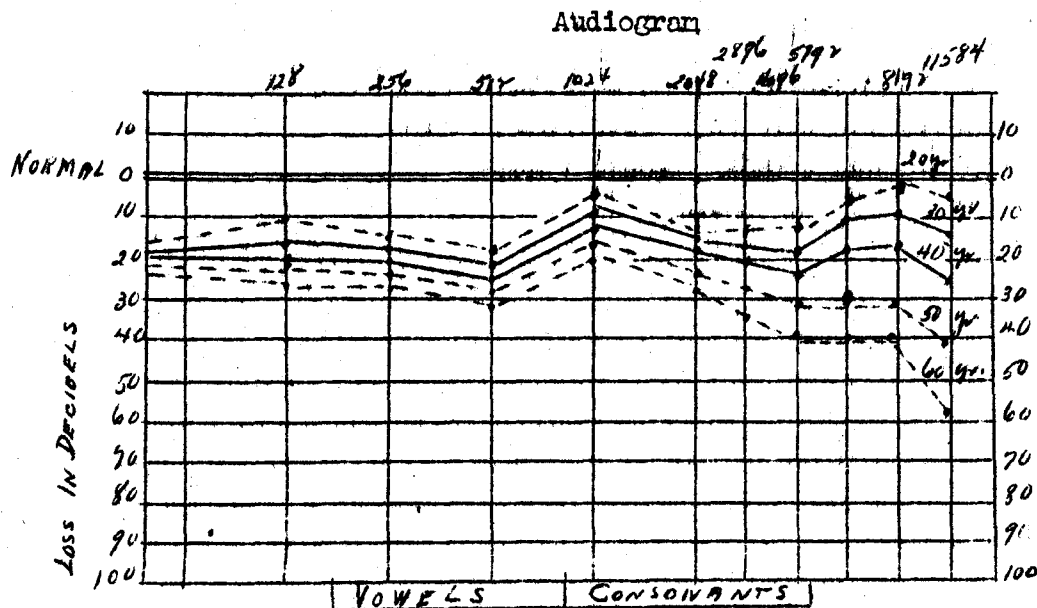
The unit of measurement is known as a decibel. A decibel, or sensation unit, may be defined as the smallest difference in intensity of sound appreciated by the normal ear.

The audiometer provides a uniform standard of measurement of hearing loss with tones of greater intensity than those of forks. A graphic record of hearing is made for future reference. Considerable time is saved by this method of testing.

There are some deficiencies in the audiometric curve as an index of ability to understand speech. In certain instances the otologist supplements tests on the audiometer with the use of tuning forks and the spoken voice.



Nature of "Normal" Audiograms with Advancing Age

Two Common Forms of Hearing Loss

It is our purpose to discuss in detail but two causes of hearing loss. These two causes are at the present time commanding a major portion of the otologists' attention in the matter of hearing impairment. One is the loss of hearing due to acoustic trauma in the form of noise. The other is the common insidious hearing loss of childhood due to obstruction of the eustachian tube.

Hearing Loss from Noise

The fact that noise can cause hearing loss has been known for a long time. Probably the best known example of this was "boiler makers deafness" which was well known over fifty years ago. Inquiry into the pathology and prevention of this injury has, however, been a recent effort.

It has been found that the threshold of painful sound lies between 90 and 135 decibels varying with the frequency of the sound.² Fatigue, however, develops

even when the intensity falls as much as 20 decibels below the pain threshold. Such employment as the operation of riveting hammers, and chipping hammers cause between 110-135 decibels of sound, and thus cause definite trauma to their operators and all those about them. The factors affecting damage from sound are:

1. Total time of exposure.
2. Length of each exposure.
3. Loudness.
4. Character of sound--continued or interrupted.
5. Frequency of sound.
6. Type of environment--such as a closed room, ship's metal hull, etc.
7. Protective device used.
8. Age of person.
9. Previous condition of hearing apparatus.

Acoustic trauma in modern warfare is a common experience. It has been estimated³ that a quarter million men of the armed forces will be disabled

because of deafness. The severe forms of acoustic trauma are mainly of the blast noise type. This may be in an atmospheric blast. That is when the noise travels through air to the ear of the victim, and immersion blast---when the explosion is in water and the noise travels through water to the ear of the immersed victim. The distance within which all hearing may be permanently lost is considered to be 20 feet in atmospheric blast and 80 feet for immersion blast.⁴

have shown that when a guinea pig is exposed to a sound of certain intensity and frequency for a period of time microscopic anatomical evidence of injury to the organ of Corti can be demonstrated.

Mild forms of acoustic trauma are common. Recovery from the injury may be complete, but often is not in the severe degrees of trauma. The following case is illustrative:

The specific effect of noise on the auditory mechanism has been difficult to evaluate on the human because of the necessity of obtaining temporal bones for microscopic studies. Recent study of the effect of noise on the hearing mechanism of the guinea pig supply significant facts which point to the actual injury produced by noise on the organ of Corti.⁵ These

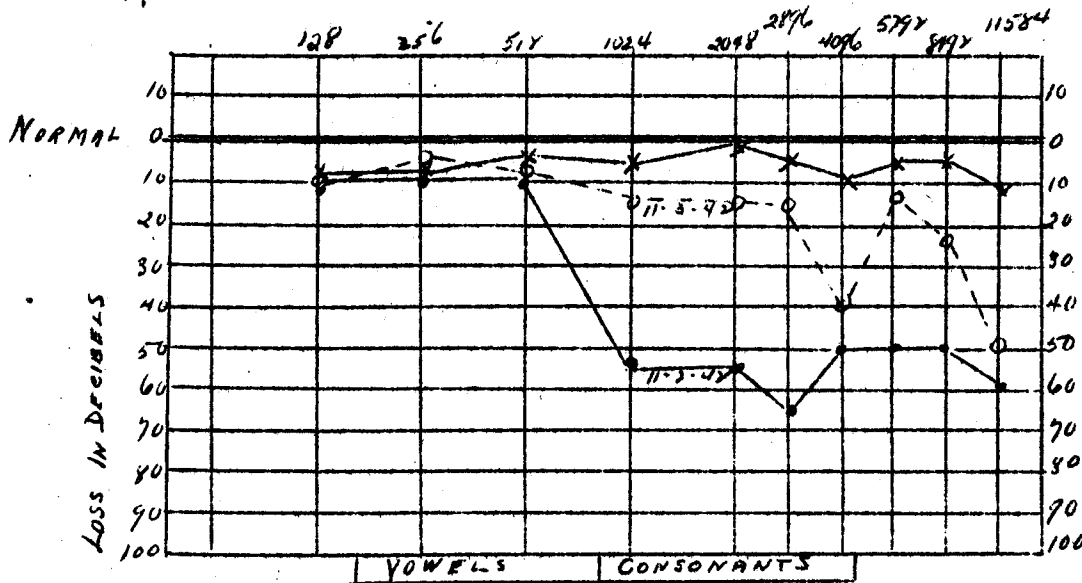
R.B., age 23, experienced a ringing in his right ear and a perceptible impairment of hearing in this ear after a shotgun discharged adjacent to this ear while he was in a duck blind.

The audiogram taken on 11-2-42, four days after this experience, is shown below. Three weeks later, a considerable recovery had been made.

Audiogram

DATE = 11-2-42

PLB. JA.



Hearing Loss from Eustachian Tube Blockage

In the present stage of our knowledge, our greatest opportunity for reducing the disability due to impaired hearing seems to be in the restoration of function of the Eustachian tube in children. Obviously, this depends upon the early

recognition and treatment of the type of hearing loss from this cause.

The work of Crowe and Baylor⁶ reported in 1939 and the subsequent reports of these investigators and their associates⁷

have indicated that:

1. There is in children eight to fourteen years of age, a high incidence (nearly 40 per cent) of impairment of the thresholds for some or all of the tones above C4; i.e., for frequencies higher than 2048 cycles per second.

2. A common cause of this early loss of high tones is to be found in catarrhal middle ear changes which originate from infected lymphoid tissue in the nasopharynx.

Pathogenesis: "Large adenoids or lymphoid nodules near the nasopharyngeal orifice of the eustachian tube interfere with normal ventilation of the middle ear. This interference with the normal ventilation of the middle ear results by absorption of some of the contained air, in a middle ear pressure chronically less than atmospheric. The pressure difference itself may cause a slight impairment of hearing as well as retraction of tympanic membrane, but the result is mucosal hyperemia and edema. If the condition persists, mucosal hyperplasia and fibrosis develop. The mucosal changes, together with the exudate and transudate that accumulate in the middle ear interfere with the transmission of sound waves to the inner ear. In contrast to the classical idea of the effect of catarrhal otitis media on hearing, we find that the perception of high tones rather than low tones is usually impaired first."

3. Hyperplasia of lymphoid tissue in the nasopharynx is very common in children. A majority of those who have had tonsils and adenoids removed will when examined be found to have adenoid masses or hyperplasia of the lymphoid tissue in the fossa of Rosenmüller and in the region of the nasopharyngeal orifice of one or of both eustachian tubes.

4. Irradiation of the nasopharynx with a 2 gram minute dose of radon to each side is an effective method of causing regression of small amounts of this lym-

phoid tissue. This amount of irradiation has no harmful effect upon the nasopharyngeal structure and the patient experiences no particular local discomfort.

5. It is recognized that children with impairment of hearing for high tones could have lesions other than ones secondary to tubal occlusion by excess lymphoid tissue. Treatment in all cases is advisable, however, if the nasopharynx is not normal in appearance. "Such children should be given the benefit of any doubt in the diagnosis and the nasopharynx should be treated in order to decrease the danger of having a progressive conductive lesion superimposed on the cochlear lesion, if there proves to be one. In many cases the diagnosis can be established only by a therapeutic test."

6. Three per cent of the children tested had impaired hearing for all tones or difficulty in understanding the spoken voice. "As a group these children derived the most immediate benefit from radon therapy. Many of them have had improvements of from 15 to 30 decibels for all except the very highest tones. Such improvements restore the hearing to essentially normal for all practical purposes, and from an educational standpoint such children cease to be special problems."⁸

7. Periodic rechecks every few months are important.

In the past two years, more than 130 patients with hearing impairment associated with lymphoid hyperplasia in the nasopharynx have been treated with applications of radon or radium to the eustachian tube orifices.

The results have convinced us that irradiation of the nasopharynx is a simple and effective method of controlling lymphoid hyperplasia adjacent to the pharyngeal orifices of the eustachian tubes; that this treatment can in many instances restore and control hearing impairment in children when it is due to the middle ear changes resulting from obstructed eustachian tubes.

Others⁸ have reported similar results.

of lymphoid hyperplasia in Rosenmüller's fossa. Orifices of eustachian tubes edematous.

The following case is illustrative:

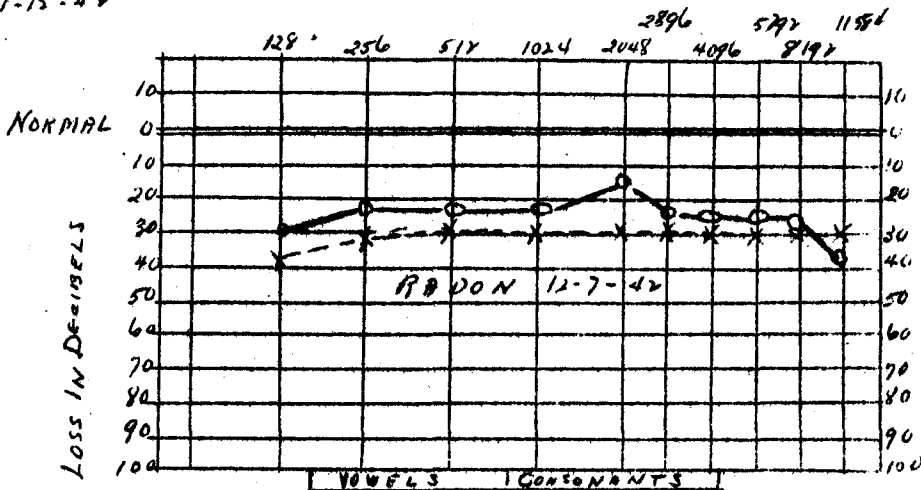
R.E., age 6. Mother noted impaired hearing. Examination showed a serous otitis media. Audiogram on 11-12-43 (see below). Tonsils and adenoids had been removed at age 3. Small amount

No improvement while being observed over a 3-week period under mild astringent nasal medication. Radon therapy on 12-7-42. Audiogram on 12-21-42 showed considerable improvement. Follow-up on 2-1-43 showed normal hearing.

DATE
11-12-43

Audiogram

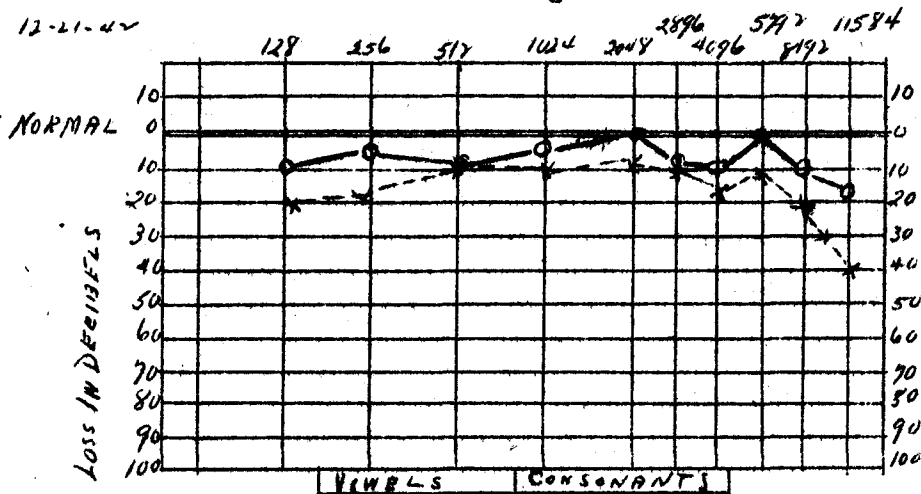
R.E. - Age 6

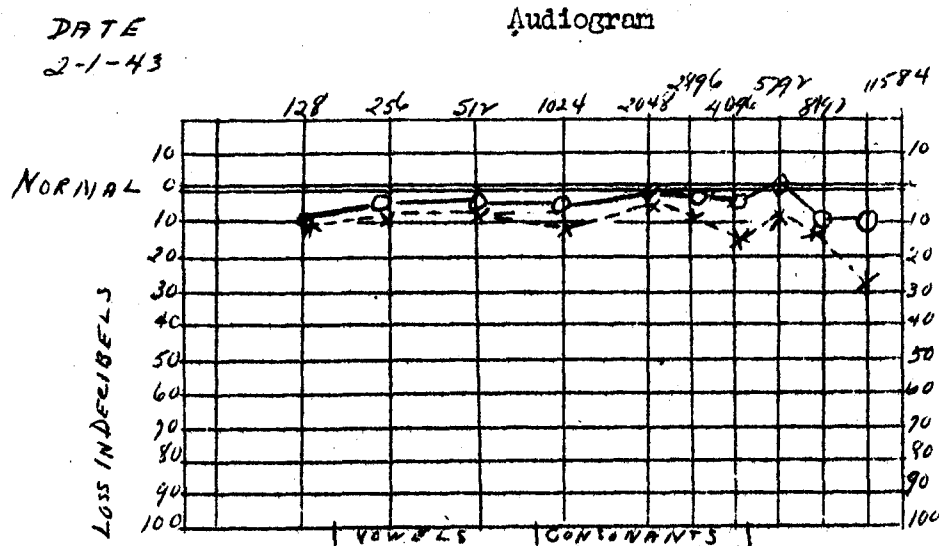


DATE
12-21-42

Audiogram

R.E. Age 6





The Prevention of Hearing Loss

In the two types of hearing loss considered in this discussion preventive measures can be largely successful.

Chippendale¹ in 1886 suggested the wearing of cotton in ears by persons exposed to gun fire. This is still being done by many exposed to industrial noise who are unaware that it will not offer adequate protection against the hazard of hearing loss. Cotton gives only 7 to 12 decibels of insulation.

There are available on the market several forms of ear stopples which effectively screen out industrial noise. In the armed forces especially designed ear pads incorporated in helmets have been developed.

All workers in an environment of industrial noise should be afforded a protective device suitable to the particular need.

It has been shown that such an ordinary occurrence as driving a tractor in farming carries the hazard of acoustic trauma and hearing loss. (Wilson)

Reference has already been made to the fact that our greatest opportunity in reducing the incidence of hearing loss

is with children. To date an adequate program to take advantage of our opportunities in this field, is not in sight.

An adequate program would require:

1. A periodic individual testing of all children six years of age and above--probably twice a year.
2. Reference of these children to a trained otologist.

Two possibilities in the prevention of hearing loss have been discussed. Referring to the causes of hearing loss of both the conduction and perception type previously listed, the preventive efforts which are likely to be the most fruitful will concern:

1. The loss of hearing through toxic neuritis as it occurs in mumps, influenza, etc., and through meningitis.
2. The loss of hearing from drugs.
3. The loss of hearing from middle ear suppuration. When scarlet fever, measles, etc. are eradicated we will cease to have suppurative otitis media as a complication of these diseases as the severity of these diseases is mitigated otitic complication will become less frequent.

To date we have learned practically nothing about the prevention of otosclerosis. It is a common cause of severe hearing loss in adults. Those afflicted are being helped by the surgery which created a new oval window allowing the conduction of sound to the membranous labyrinth. However, there is much to be learned about this operation before the end results become certain.

Summary

1. Hearing loss is common. Two causes of hearing impairment which are receiving a great deal of attention at this time are: (a) acoustic trauma in the form of noise, and (b) the common hearing loss of childhood which results from blockage of the eustachian tube.

2. Hearing loss from noise can be prevented in industry if the proper preventive measures are applied. Considerable attention is being given to this in the armed forces.

3. Hearing loss resulting from eustachian tube blockage occurs commonly in children. An adequate program to detect it will require periodic individual audiometric testing of all children six years of age and above---probably twice yearly.

4. The control of hypertrophied lymphoid tissue around the mouth of the eustachian is an important factor in the control of this eustachian tube blockage. A convenient method of control is available in the exposure of the area to small doses of radiation.

References

1. Taylor, H. M.
Traumatic Deafness; Problems of Prevention.
Laryngoscope, 54:362-373. July '44.
2. McCoy, D. A.
The Prevention of Ear Disability in Industry.
J.A.M.A. 121:1330 (Apr.24) '43.
3. Manual for Program Outline for Rehabilitation of Aural Casualties of the War,
Sponsored by the American Academy of Ophthalmology and Otolaryngology, '43.
4. Silcox, Louis E. and Schenck, H. P.
Blast Injury of the Ears
Archives of Otolaryngology, 39:413-420; May '44.
5. Lurie, M.H., Davis, H. and Hawkins, J.E.Jr.
Acoustic Trauma on the Organ of Corti in the Guinea Pig.
Laryng. 54:375-386, (Aug.) '44.
6. Crowe, S.J. and Baylor, J.W.
The Prevention of Deafness.
J.A.M.A. 112:585-590, '39.
7. Guild, S.R., Polvogt, L.M., Sanstead, H.R., Loch, W.E., Langer, E., Robbins, M.H. and Parr, W.A.
Impaired Hearing in School Children.
Laryng. 50:731-746, '40.
- Crowe, S.J., Guild, S.R., Langer, E., Loch, W.E. and Robbins, M.H.
Impaired Hearing in School Children.
Laryng. 52:790-804, (Oct.) '42.
8. Emerson, E.B.Jr., Dowdy, A.H., Heatly, C.A.
Use of Radium in Treatment of Deafness by Irradiation. Arch. of Otol., 35:845-852 (June) '42.
- Fowler, E.B. Jr.
Non-Surgical Treatment of Deafness.
Laryng. 52:204- (Mar.) '42.
- Fisher, G. E.
Recognition and Radium Treatment of Infected and Hypertrophied Lymphoid Tissue in the Nasopharynx.
Arch. of Otol. 37:434-436. (Mar.) '43.
- Jones, E.N. Irradiation of the Nasopharynx in Office Practice.
Arch. of Otol. 37:436-438, (Mar.) '43.
- Farrior, J.B., and Richardson, G.A.
Nasopharyngeal Radium Applicator.
Arch. of Otol. 37:609-721 (May) '43.

III. GOSSIP

A letter from Captain Jack M. Farris in the University Hospital Bulletin, Ann Arbor, Mich., Oct. 1944, deals with the definitive treatment of wounds after the emergency treatment has been done. According to Captain Farris they have been confronted overseas with large open wounds of the buttocks, extremities, etc., stuffed with vaseline gauze, most rather enthusiastically debrided, and most of them free of sepsis. Dressing them would be a formidable task, and healing would certainly be prolonged if they were left open. Some days they saw between 40 and 50 of such wounds. They devised this plan: all dressings and vaseline packs are removed on entry, caked sulfa crystals, blood clot and exudate are removed by simple saline dressings for 24 to 48 hours. Casts containing warnings not to be removed are taken off. Sulfadiazine is given orally 6 grams per day. Penicillin is not used. All the wounds are closed without local chemotherapy. Compound fractures are converted into simple fractures. Of 488 closures of various kinds, many of them over fractured bones, 70% healed primarily, 26% drained in varying amounts up to 14 days, and 4% were unsatisfactory, probably due to poor technique. As he wrote he was trying a new series with local chemotherapy and believes he will abandon it. Large skin grafts have been used whenever necessary. The best takes are in those wounds grafted before granulations are formed. Intestinal obstruction follows in a high percentage of abdominal injuries most of which respond to tube although some had to have adhesions removed. This is a most interesting report and should be read by everyone interested in the subject of wounds....Dr. Walter H. Judd in his talk the other evening to the tuberculosis group gave us some Chinese philosophy. One that I liked concerned the way the death of different individuals affects us. The passing of a little child in a large family, or an old man or an old woman might be likened to the falling of a leaf on the surface of the water, while the death of an active person in his prime might be likened to the crashing of a big tree in the forest...On Wednesday evening the Minneapolis Hospital Council honored the nurses aids from the American Red Cross who serve in our institutions. These

women from all walks of life through their voluntary contribution to nursing service have made possible the care of the sick during war time. There is a recent demand for more nurses in the service, which means that more nurses aids will have to sign up. The next time you have the opportunity tell one of these women how much we all appreciate their contributions....On Thursday evening I spoke in Superior to the Field Army of the Wisconsin Cancer Society. Over there medical societies and lay workers meet to discuss common problems. The lay people send the patients in and the doctors are asked to examine them and treat them....This morning I spoke at Vocational High School to the boys and girls learning trades. Many of our schools fail to qualify their students for useful places in society. A surprising number of opportunities are provided in Vocational High Schools for every kind of person....The Eustis Big Little News is out this week with the usual interesting stories and interviews. I note that Drs. Harry Hall and Malvin Nydahl are featured this month in the biographical sketches. We learn that Harry's hobby is hunting, and that each year during hunting season he acts as nursemaid and cook for Dr. Peyton. One of our patients, a girl aged 12, who was interested in making bricks is not going into that industry as she plans on being a congresswoman. My favorite lines are these: "frost winds and silver snow, oh why does Christmas come so slow." Dorothy Jones is managing editor....Walter J. Breckenridge, Curator, Museum of Natural History has just returned from his expedition with a fine big moose. He had a special permit to shoot one, and made his selection from 15 or 16 animals he saw. The background for this exhibit is now in place, and a dummy of the moose has been used in the foreground in planning space relationships. The Museum series of Sunday afternoon movies will start this month....Tomorrow night I am to attend the recognition dinner for Alcoholics Anonymous at which time over a hundred men who have remained dry for over one year will be honored. Ex-alcoholics say while they are drinking they hesitate to tell anyone about it. When dry they are glad to tell and help others.