CASES OF ·
PHLEBITIS WITH PNEUMONIA
AND PLEURISY

FROM
CHRONIC DISEASE OF THE EAR.

BY
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AMONGST the cases of inflammation of the dura mater connected with disease of the ear, recorded by Abercrombie, is one of a young lady, æt. 15, where death occurred in an intermediate stage of the progress of the disease in the ear from suppurative pleuritis; but whether he recognised the chest affection to be the *direct* result of the chronic changes in the ear or not we are left to conjecture, since he makes no particular remarks upon it. Dr. Watson has more especially directed attention to this complication of general phlebitis with disease of the ear; although the illustrations he has given are defective, from the actual condition of the ear and the veins not having been ascertained by post-mortem examination. Dr. Wilde, in his work on 'Aural Surgery,' when treating of the cerebral affections connected with disease of the ear, goes on to say: "These cerebral symptoms do not, however, in every case appear to be the immediate cause of death. I remember two cases in particular, and I

suppose they are the types of many others of the same class, where the lungs became affected in the latter stage of the disease, and in which the thoracic affection seemed to be the immediate cause of dissolution." He also quotes a case laid before the Pathological Society (of Dublin), in 1840, of a boy, æt. 16, who, together with the cerebral symptoms arising from disease of the ear, had, towards the end, distressing cough, and severe pain along the right side of the neck. After death there was inflammation of the internal jugular, and superior vena cava, with fetid pus in the pleura, as well as purulent deposit in the cerebellum.

The following cases, which I wish to lay before the Society, are further contributions to this part of pathology. In neither of them had the cerebrum or cerebellum become the seat of disease, but the caries of the mastoid cells had set up local phlebitis, extending down the jugular vein, and producing an affection of the lung, which was, in all, the immediate cause of the fatal termination.

The first case is more especially worthy of note, as there were no external signs in the ear itself to direct attention to it, as the seat of the primary irritation.

The occurrence also of pneumothorax is rare, although the condition of the lung in these cases is such as frequently to bring the patient to the verge of such an accident.

Phlebitis of the Jugular Vein, Lobular Pneumonia, Pleurisy and Pneumothorax, from Chronic Diseases of the Ear.

Thomas Timmings, æt. 21, was admitted into Guy's Hospital, under my care, December 2d, 1854, and gave the following account of himself:

He says that, a week ago, he took cold, whilst working, as an engineer, in an exposed and marshy situation at Waltham. This was followed by sore throat, and stiffness about the neck. He has had several shivering fits, which he calls ague, frequent vomiting, and pain in the head.

His present symptoms are: skin hot and dry; pulse 100; tongue injected, with two broad streaks of yellowish fur

towards the centre ; conjunctiva icterode. Complains of severe pain in the head. Face anxious ; no delirium ; abdomen contracted ; muscles rigid ; bowels inactive ; nausea and vomiting ; urine high-coloured without deposits ; free from albumen. Pulmonary and cardiac sounds in all respects normal. Ordered—

Haust. effervescens, 4tis horis.

Dec. 3d.—Frequent vomiting ; severe frontal headache ; febrile symptoms as yesterday ; no delirium.

5th.—During the last twenty-four hours has had two severe rigors, followed by increase of the febrile symptoms ; no sweating. On placing him up in bed, to re-examine the chest, he is observed to move the head stiffly and cautiously. On inquiry, he says, he has tenderness over the mastoid process, and down the neck behind the ramus of the jaw on the right side, with deafness on the same side. The external auditory canal, and the surface of the membrana tympani, appear to be free from disease. He states that four years ago, when working in a coal-mine in Staffordshire, he received a blow on the right side of the head, which was followed by the deafness and discharge from the ear. The tenderness and slight fulness in the course of the jugular vein, and over the mastoid, indicate this as the seat of the irritation giving rise to his symptoms. Ordered—

Hirudines, vj, pone aurem dextram.
Mist. Magnesiae c. Mag. Sulph.,
ad sedes liquidas.

6th.—Two rigors since last visit ; pain in the head relieved ; no incoherence, nor any degree of cerebral oppression. This morning began to complain of a painful stitch in the right side of the chest. A harsh pleuritic rub audible over the part. Pulmonary sounds otherwise normal. Ordered—

Hydrarg. Chloridi,
Opii, ana gr. ss.
6tis horis.
Rept. haust. effervescens.

7th.—The swelling behind the angle of the jaw, and in the region of the internal jugular behind the ramus of the jaw, more distinct. Deglutition painful. The vomiting has ceased. Passed a restless night. About midnight had a severe rigor, lasting about an hour, and followed by sweating for near the same time. Skin now hot and dry; pleuritic pain, and rubbing on the right side remain. Slight cough with expectoration of a small quantity of tenacious mucus tinged with blood.

Pergat.

8th.—A severe rigor last night, after which, to use his expression, he "could not get his wind for an hour or two." Now breathes tranquilly. Lies on his back. On exposing the chest, the right side was observed to be almost immovable and rounded; preternaturally resonant on percussion. The loud and harsh pleuritic rub of yesterday gone, and nothing now audible but bright amphoric breathing over the whole side (from pneumothorax?). At the base posteriorly, near the spine, tubular breathing, with mucous crepitation. On the left side, under the mamma, slight pleuritic rubbing, and over the whole side puerile respiration. Tongue dry and brown; pulse 120; no delirium; frequent, short cough; no dyspnœa.

The diagnosis was *pleurisy and lobular pneumonia, from phlebitis, with perforation of the pleura pulmonalis*.

9th.—General condition as yesterday. A rigor about midnight lasting three quarters of an hour, not followed by sweating. Respirations 36; no dyspnœa; pulse 120; countenance suffused; slight cough. Condition of chest as yesterday.

Pergat.

10th.—Dyspnœa urgent; respirations 48; pulse 138. Dulness over the inferior part of the left chest. Fine crepitation, extending upwards to the scapular and axillary regions, and anteriorly as high as the second rib. The same tympanic resonance, and amphoric breathing, on the right side.

11th.—Died at half-past one p.m.

Inspection of the body, twenty-five hours after death, by Dr. Wilks.—Body well nourished; muscles firm and well developed; brain healthy, with the exception of a slight superficial discoloration on the side of the right lobe of the cerebellum, from contact with the diseased dura mater. The brain substance had not undergone any change of texture. The right lateral sinus, at its commencement in the torcular Herophili, contained an adherent clot; further on in its course the contents of the sinus were fibrine, partly softened into a greyish, puriform fluid, and pus. The internal jugular vein was filled with the same at the upper part, and obstructed by an adherent clot as far down as its junction with the subclavian.

Over the petrous portion of the temporal bone, and continuous with the descending portion of the lateral sinus, the dura mater was sloughy. Pus lay between it and the bone, and was infiltrated along the coats, and into the sheaths, of the jugular vein.

The right pleural cavity contained a large quantity of air. The lung was collapsed to the spine. On blowing into the trachea with a blow-pipe, air escaped freely through two openings in the lower lobe. These communicated with two small cavities, one of the size of a filbert, the other smaller, formed by a slough of the pulmonary tissue; the result of lobular pneumonia. The contents were ash-coloured, puriform, and fetid. The pleura was covered by a considerable quantity of recent fibrinous exudation. There was about a pint of turbid fluid in the pleural cavity.

The left lung was universally affected with acute recent pneumonia, in the stage of early red hepatization. A small amount of plastic exudation upon the pleura. Heart and pericardium normal. Liver healthy. Spleen large, weight ten ounces avoirdupois; tissue soft. Kidneys healthy.

The left ear was free from disease. The external auditory canal of the right ear was healthy; the membrana tympani intact, and the malleus in situ upon it. The other portions of the chain of bones were loosened from their connections.

The lining membrane of the tympanum was thickened and vascular. There was caries of the posterior and superior wall, and of the adjacent mastoid cells, extending to the dura mater at two points; in one as it lies upon the superior part of the petrous portion, and in the other as it covers the floor of the lateral sinus.

Phlebitis, Pneumonia, and Pleurisy, from Chronic Disease of the Ear.

John Robertson, æt. 52, a native of London, and living nearly all his life in the neighbourhood of Bermondsey, married, and of sober habits, applied to me as an out-patient at Guy's Hospital, July 17th, 1854, complaining of feeling generally unwell, with headache, and loss of appetite. Two days previously he had had a slight rigor. The tongue was moist and furred white. The case was regarded as one of fever, and he was accordingly advised to come into the house. Not consenting to this, he was ordered a saline mixture of the citrate of potash. At his second visit, the following week, he was admitted into the hospital. His symptoms were of the same character as before, and were for the first few days still set down to the invasion of continued fever. Every second day he had a rigor, lasting about ten minutes. This was attributed to the influence of the locality in which he had been living. The headache, general oppression, malaise, and furred tongue, continued. The pulse was 70; skin moist. No enlargement of the spleen.

From July 24th to 28th he took—

Inf. Serpentariæ, ℥iss.
Ammoniæ Carb., gr. iv, 6tis horis.
Sherry, ʒvj.

On the 28th, the attacks of shivering returning daily, he was ordered—

Quinæ Disulph., gr. iij, in pil.,
4tis horis.

August 8th.—The rigors still return daily, lasting for ten minutes, not now followed by sweating.

Pergat.

19th.—Rigors less marked, but no improvement in the other symptoms.

Pergat.

Hydrarg. Chloridi, gr. v, st.

Ol. Ricini, ʒvj, post horas sex.

23d.—No rigor for last five days. The general symptoms continue, and their cause remains obscure; sleep disturbed.

26th.—Attention was at this time drawn to the left ear and the parts adjacent. It was observed that he had stiffness of the neck, and pain in rotating the head. He now stated that from childhood he had had, at times, a discharge of offensive fluid from the left ear, and that he was deaf on this side. Ordered—

Jul. Hydrarg. Bichloridi C., ʒij,

bis die.

Empl. Lyttæ nuchæ.

31st.—Shiverings more severe; face anxious; tongue loaded and brown; with the exception of slight delirium at night, no disturbance of the cerebral functions.

September 3d.—Complains of great pain down the left side of the neck, and towards the occiput. The parts are very tender, and he cannot suffer the hand to be moved on the spine. The rigors return daily, and are very severe. Tongue dry and brown; breathing frequent, with slight cough. Bed-sores beginning to form on the back.

Died September 11th, 1854, twenty-five days from the accession of his symptoms.

Examination thirty-six hours after death.—Purulent discharge from the left ear. Underneath the skin, and superficial textures, suppuration extending from the jugular fossa

downwards and backwards amongst the muscles. The adjacent parts of the temporal and occipital bones, down to the condyles, were necrotic, and of a dark colour. The internal jugular vein filled with a soft fibrinous coagulum and pus. The lateral sinus contained the same. The external surface of the dura mater, over the petrous portion of the temporal bone, and the walls of the lateral sinus, were dark coloured and much thickened. The coats of the internal jugular were also thickened, and involved in the suppuration amongst the muscles. With the exception of a slight discoloration on the left lobe of the cerebellum, unattended with exudation or change of texture, the brain and cerebellum were healthy. Right pleura contained a pint of purulent effusion, with patches of recent yellow exudation upon the surface of the lung. Both lungs presented the different stages of pneumonic consolidation, in some parts approaching to a state of gangrene. Heart and pericardium healthy. Abdominal viscera healthy. The mastoid cells were extensively destroyed by caries, and, as in the preceding case, the bone was perforated in two places, at the superior part of the petrous portion to the extent of a third of an inch in diameter, and to the same extent into the sulcus lateralis. The disease had apparently extended into the mastoid cells, from posterior wall of the external meatus, which at its commencement was cribriform from ulceration.

Phlebitis, Lobular Pneumonia, Pleurisy, &c., from Chronic Disease of the Right Ear.

George Lewis, æt. 23, was admitted into Guy's Hospital, July 22d, 1854, under the care of Dr. Habershon. He is ill developed, with a hydrocephalic head, boyish look, and half fatuous expression. He has been living in great poverty, and been much neglected. For a fortnight before admission, he had been suffering with febrile symptoms, and slight delirium. The case was regarded as one of continued fever. On admission, he was very prostrate; tongue dry,

lips parched; skin hot and perspiring; pulse frequent; evacuations of a dark colour; urine scanty, high coloured, and containing an abundance of triple phosphate. A considerable discharge of thin, bloody pus from the right ear; pain at the back of the neck, much increased by the slightest movement.

It appears that for several years he has been nearly deaf with the right ear, and for the last six weeks there has been a discharge, and pain from the mastoid process to the occiput, and down the neck. He has slight cough. At the base of the right lung there is dulness on percussion, bronchial respiration, and a well-marked pleuritic rub. There is much complaint of pain in the head, considerable oppression; an unwillingness to be disturbed, but no delirium or incoherence.

Radatur caput,
Embrocatio communis,
Inf. Serpentariæ,
Ammon. Carb., gr. iv,
Pulv. Cretæ Comp., gr. xv,
6tis horis.

Ung. Hydrarg. Fort. axillis infricandum.

July 24th.—Dulness at the base of the left lung. Condition of the right lung and other symptoms much the same.

Repetatur mistura,
Capiat pilulam, Antimonii Opiatam,
c. Hydrarg. Chloridi, gr. j, ter in die.
Empl. Lyttæ lateri dextro.

25th.—Cough, and rust-coloured expectoration; less febrile disturbance.

Repetatur pilula omni nocte tantum.
Julepum Acidi Nitrici c.
Vini Ipecacuanhæ, ℥x, 6tis horis.

27th. Profuse partial sweats. The pleuritic rub on the right side audible higher up; signs of consolidation remain.

On the left side moist râles, audible at the base; expectoration tenacious and puriform.

Inf. Serpentariæ Jul. Ammon. Acetat., āā ʒss, c.
Ammon. Carb., gr. iv, 4tis horis.

28th.—Diarrhœa; dulness on the right side more extensive; skin hot and dry; there has been no delirium since admission.

Enema Amyli, c.
Tinct. Opii, ℥xx, statim.
Repetatur mistura.

30th.—He appears to be sinking; quite sensible. At 4.15 p.m. he died. About an hour before death he fell into a convulsion, with contracted pupils, which continued to the end.

Examination fourteen hours after death.—Behind right ear, under the integuments, extending down to the occipital condyle, tissue sloughing. The lining of the meatus auditorius externus thickened and vascular; the membrana tympani in the same condition; no ulceration. The tympanum full of dark-coloured exudation of the consistence of putty. The roof and posterior wall carious. The part of the occipital bone forming the floor of the lateral sinus carious; and the dura mater upon it sloughing. The cavity of the sinus and the internal jugular vein contain an adhesive clot, which in the centre is soft and puriform; surface of arachnoid slightly greasy; pia mater hyperæmic; convolutions rather flattened. Lateral ventricles enlarged, their lining membrane faintly granular. Section of white substance of brain mottled, and presenting numerous vascular points. (Death by asphyxia.)

In the right pleura twenty ounces of opaque serum with fibrinous flakes. Left lung partially adherent; at the base purulent effusion to the extent of several ounces. In the subjacent pulmonary tissue several lobules in a state of suppuration and disintegration. The upper lobe partially solidified and œdematous; in the right lung also, many

patches of suppurating lobular pneumonia. In the pericardium, an ounce and a half of clear serum ; heart normal, except slight thickening of the aortic valves ; abdominal viscera healthy ; no trace of tubercle in any organ.

The anatomical relations of the ear to the veins would lead us, prior to experience, *to anticipate that affection of the chest would not be an uncommon result of necrosis of the mastoid cells* ; and these, with other recorded observations, show that the lungs, as well as the brain, must be regarded as obnoxious to secondary affections from chronic disease of the ear.