ON
CHRONIC PLEURISY WITH EFFUSION,
OR EMPYEMA.

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[Concluded from p. 325.]

Even if the existence of tubercle is ascertained, I believe that we afford our patients a better chance of recovery by treating the pleuritic affection, inattentive to the tubercular complication; at least, by doing so we remove one source of excitement to the circulation, and we place the lungs in a more favorable condition for resisting the progress of the disease. The treatment then consists of mercurialisation, nutritious diet, and confinement to bed, as auxiliaries; local bleeding, blisters (but not till after the mercurial excitement has subsided), antimonials, and iodide of potassium, may be used, as the individual judgment may suggest. With this line of treatment, I believe the operation of paracentesis will be rarely, if ever, required, and it ought in no case be resorted to till it has been tried. It is, as Dr. Hope has justly remarked, the presence of anæmia and hectic, and the neglect of physical examination, that has so long obscured our views of the pathology and treatment of this disease.

CASE I.—J. H., aged forty-four, a laborer, admitted into hospital September 28, 1843; about three months ago was seized, while at work, with a pain under the sternum, which confined him for three days; after that he resumed his work, at which he continued till a fortnight ago, when he found it impossible to remain at it, in consequence of great dyspnoea. Although he made no particular complaint, except of some dyspeptic symptoms (for which he had advice), he has never felt well since he was first seized. At present he complains of dyspnoea, so great as to render walking quite a labor; pain in the left side, and a difficulty of lying upon either; emaciation; slight cough; pulse 72, weak; is troubled with occasional rigors.

Physical Signs.—Respiration increased over both lungs superiorly; dulness and absence of respiration over the entire of the left side, as high as the fourth rib, and dulness, with absence of respiration, over the inferior portion of the right side; a *gurgling* of fluid can be heard on both sides; the left side measures an inch more than the right; the heart pulsates to the right of the sternum. Let six ounces of blood be taken by cupping-glasses from the painful part of the left side. Take of

Calomel, two grains;
Emetic tartar, an eighth of a grain;
Extract of opium, a third of a grain. Mix. Let a pill be made, to be taken three times a-day.

Half a drachm of mercurial ointment to be rubbed in the inner part of the thigh night and morning.

Sept. 29. Pulse 72; feels low; had less rigors last night.

Oct. 1. Pulse 78; bowels were moved eight times during the night; the line of dulness is lower on the left side, and a slight friction sound is audible over the inferior portion of the right.

4. Fluid decreasing; pulse 84; breathes more freely.

8. Pulse 78; mouth very sore; feels better; respiration free over the two superior thirds of the left lung; friction sound inferiorly. Omit the ointment; repeat the pills, to be taken night and morning; to have a pint of beef-tea for dinner.

12. Slept on his left side last night; this he had not been able to do since he was first seized.

14. Much better. Application of a blister to the left side.

18. Application of a blister beneath the left scapula; to take a pill every night. Take of

Iodine, a quarter of a grain;
Hydriodate of potass, two grains;
Water, one ounce. Mix. To be taken three times during the day.

23. Effusion nearly absorbed; pulse 78; percussion clear down to the seventh rib; a slight friction sound inferiorly. His convalescence was uninterrupted; the treatment was discontinued on November 6, and he felt well enough to be discharged in a week after. I saw him last week, and he was quite free from any trace of disease.

CASE II.—J. R., aged thirty-seven, butcher, admitted January 4, 1844; was carrying a surveyor's case about thirteen weeks ago, when he got a fall, that compelled him to lie down in a field for a couple of hours. The same night he was seized with a pain in both sides, for which he has been under treatment till now.

At present he complains of general exhaustion and dyspnoea; countenance anæmic; pulse 120; respiration 40; slight cough; lies upon his back; there is dulness and absence of respiration over the lower part of both lungs, and the gurgling sound can be heard on both sides. Take of

Calomel, fifteen grains;
Compound soap pill, ten grains. Mix. Let six pills be made, one to be taken night and morning.
Nitrate of potass, tincture of digitalis, of each one drachm;
Emetic tartar, two grains;
Compound tincture of camphor, half an ounce;
Water, eleven ounces and a half. Mix. Two tablespoonfuls to be taken four times a-day.

Jan. 6. Pulse 90; other symptoms as before.

8. Pulse 80; mercurial fœtor; fluid decreasing.

10. Mouth sore. One pill to be taken every night.

13. Mouth very sore; pulse 80; respiration free over the greater portion of both lungs; gurgling still present. Omit the pill. Take of

Hydriodate of potass, three grains;
Solution of potass, six minims;
Spirits of nitric æther, twelve minims;
Water, one ounce. Mix. To be taken three times during the day.

18. His recovery has been progressive; complains of great perspirations. Omit the mixture of potass. Take of

Sulphate of quinine, four grains;
Dilute sulphuric acid, twenty minims;
Water, eight ounces. Mix. Two tablespoonfuls to be taken three times a-day.

27. He is now free from complaint, and remains in hospital only to recruit his strength.

CASE III.—J. T., aged twenty, a laborer, admitted November 23, 1843; had an attack of pleurisy six months ago, and has not been well since; at present he complains of headache, and pain in the right side; slight cough, and scanty expectoration; pulse 96; skin dry; the right side measures half an inch larger than the left; there is dulness and absence of respiration over the inferior part of the right lung, and a mucous râle in the infra-clavicular space of the same side, but no perceptible dulness; a gurgling can be heard quite distinctly in the inferior portion of that side. Six ounces of blood to be taken by cupping-glasses from the right side. Take of

Blue pill, one grain;
Extract of opium, one-third of a grain;
Ipecacuanha, half a grain. Mix. Let a pill be made, to be taken three times a-day.

26. Feels better; pulse 84.

27. Pulse 98; skin hot and dry; no uneasiness in the right side; gurgling still exists; bronchial respiration in the inferior part of left side. Blood-letting to twelve ounces. Take of

Emetic tartar, one-sixth of a grain;
Water, one ounce. Mix. To be taken every four hours.

Repeat the pills.

From this period he continued to improve, his chest becoming everywhere free, except beneath the right clavicle, where there existed a shade of dulness, and an increased sound of expiration; a slight click was also audible on each inspiration, and, as he expectorated some dark, jelly-like sputa, I found the breaking down of tubercle. Let a seton be inserted under the right clavicle. Take of

Solution of potass, a drachm and a half;
Hydriodate of potass, one scruple;
Tincture of hyoscyamus, one drachm;
Compound decoction of sarsaparilla, ten ounces.
Mix. Two tablespoonfuls to be taken three times a-day.

He improved so much that he became free from complaint; but, as his constitution was naturally cachectic, I made him an out-patient on the 4th inst., that he may be able to continue the treatment.

CASE IV.—On the 4th of November, 1843, I accompanied Dr. Clarke to visit W. F., aged thirty, who had been in bad health for the last year; he complained of slight cough, attended with scanty mucopurulent expectoration; emaciation; night sweats; pulse 96; a burning sensation in the right side; there was dulness and absence of respiration over both lungs inferiorly, and a *gurgling*; percussion, normal over the other portions of the chest; respiration rather puerile superiorly; and, with the exception of an increased expiratory murmur at the external margin of the right infra-clavicular region, there was no indication of disease. Application of six leeches to the right side. Take of

Blue pill, one grain;
Ipecacuanha, half a grain. Mix. Let a pill be made, to be taken three times a-day.

Take of the hydriodate of potass, two grains;
Solution of potass, six minims;
Water, one ounce. Mix. To be taken three times a-day.

As the pills disagreed, they were omitted, and a

scruple of blue ointment was rubbed into the sides night and morning; the mercury affected him slightly; he breathed easier, and could lie on either side; altogether he felt considerably better. Circumstances of an urgent and peculiar nature connected with his employment rendered a speedy convalescence desirable. In opposition to our directions, he was dressed, and removed to a sitting-room, and (among other things) had brandy and water to drink. Violent hectic set in, the cough and expectoration increased, and he sunk exhausted on the 18th of December. We obtained a post-mortem examination.

On opening the chest, the lungs appeared quite sound, but, on cutting into them, we found the apices of both thickly strewed with tubercles, and about half a dozen small cavities (that would contain a marble) in the centre of each; the amount of disease was, as nearly as possible, the same on both sides; and so entirely surrounded by healthy tissue, that the physical signs afforded little or no evidence of their pathological condition; recent bands of lymph passed between the pulmonary and costal pleura, where the gurgling sound was formerly detected. Although the bowels were regularly moved, we found the colon loaded; it was the existence of disease in both lungs, rather than its amount, that proved fatal.

Cases I. and II. are examples of this disease of some duration, yet exciting no suspicion of their true nature; it is easy to criticise a diagnosis—or, in fact, to make one—when the symptoms are all laid down on paper; but it is quite another affair to detect disease at the bed-side; and I feel no hesitation in saying that, had it not been for the *gurgling* sign alluded to, the diagnosis of either of these cases would have been difficult. In Dr. Hughes' paper on Pneumothorax, now publishing in the "Medical Gazette," he describes a case in which splashing was heard, although there was no evidence of an opening into the pleura, and he takes it as granted that there must have been one, although it could not be detected; but everything connected with my cases negatives the idea of a pleural opening.

I have already stated that the recumbent position was most favorable for detecting the "*gurgling*," but I believe I might have said the only one; on this, however, I must make further observation. It is certainly the best, and I only allude to it here to give a hint to those who are obliged to examine patients not confined to bed. Cases III. and IV. are interesting for the facility with which the *gurgling* enabled us to detect effusion when, from its small amount, and (Case IV.) its existence on both sides, we were deprived of the assistance of the principal ordinary signs. Were the signs in Case I. caused by the presence of purulent matter in the circulation?

In Case III. the removal of the pleuritic affection enabled us readily to detect and combat the tubercular tendency; and though it may have been detected, it could not have been subdued had the other been overlooked.

Though Case IV. terminated fatally, considerable relief was afforded by quieting the pleural affection, independent of the pleuritis. The presence of tubercle, and the absence of its physical signs, are important; a correct diagnosis was made, "but with hesitation," from the general symptoms, and, though

the post-mortem results exonerated the stethoscope, "or rather ourselves," from blame, they are enough to teach us that, to detect and treat disease correctly, we ought to make general symptoms and physical signs correct the chain of our reasoning on every individual case; and when they refuse to do so, he will act wisely who withholds a positive opinion.

SKETCH

OF THE

RELATIVE ANATOMY OF THE SPINAL COLUMN.

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The object of the following sketch of the relative anatomy of the spinal column is to make each vertebra an indicator of the parts in connection with, in juxtaposition to, or on a line with it; and thus to make each subservient to practical purposes in the diagnosis and treatment of disease.

The addition of the origins and insertions of muscles might not be of any material use; nevertheless they are included that the sketch may be more perfect. I have also thought fit to introduce a few remarks on subjects arising out of the parts in connection with the position of some of the vertebræ.

I do not pledge myself for the critical correctness of the relative positions; but I trust they will be found sufficiently correct for the purposes intended.

Atlas.

Foramen magnum occipitale, through which the medulla with its meninges, the arteriæ spinales, and the sinus venosi pass out; the arteriæ vertebrales, the arteriæ meningæ posteriores, and the nervi accessorii pass in.

Lingual nerve from the anterior condyloid hole of the occipital bone.

Suboccipital nerve between this bone and the cranium.

First cervical nerve below the atlas.

Spinal accessories from the root of the first cervical nerve.

Ganglionic enlargement of the vagi.

Last turn of the vertebral artery before entering the cranium.

Transverse ligament to confine the dentoid process of the second vertebra to the anterior arch of the atlas.

Perpendicular ligament to attach the above process to the anterior edge of the foramen magnum.

Roof of the pharynx.

Superior vertebral attachment of the ligamentum nuchæ

Sole origin of the rectus capitis anticus minor from its fore part.

Sole origin of the rectus capitis lateralis from its transverse process.

Sole origin of the rectus capitis posticus minor from its back part.

Sole origin of the obliquus capitis superior from its transverse process.

Sole insertion of the obliquus capitis inferior into its transverse process.

Superior insertion of the longus colli into its body.

Superior insertion of the scalenus medius into its transverse process.

Superior origin of the levator scapulæ from its transverse process.

Superior vertebral insertion of the splenius colli.

Superior insertion of the inter spinalis and intertransversalis colli.

Remarks.—In cases where the head is drawn towards one shoulder from paralysis of the sternocleido-mastoideus and trapezius muscle on the opposite side, the effect is probably produced by pressure upon the course or origin of the spinal accessory nerve, which is often given off as low as the seventh cervical nerve.

It is interesting to observe the tortuous course which the vertebral artery takes before it enters the cavity of the cranium. Such an arrangement is manifestly for the purpose of preventing a too direct injection of arterial blood into the posterior parts of the brain; but for this provision a variety of causes, both moral and physical, would be constantly producing cerebral inflammation or congestion and all their fatal consequences.

In cases of sudden death from falls upon the head, should no satisfactory cause be detected within the cranium, we ought never to omit to examine the state of the transverse ligament, the complete vertical rupture of which would instantly extinguish life by allowing a dislocation of the dentoid process upon the spinal cord.

Dentatas.

Second turn of the vertebral artery before it enters the cranium.

First cervical ganglion of the sympathetic nerve lies upon the body of this bone.

Superior branch of the origin of the phrenic nerve arises from the second cervical nerve.

Sole origin of the rectus capitis posticus major from its spinous process.

Sole origin of the obliquus capitis inferior from its process.

Part insertion of the splenius into its transverse process.

Part origin of the levator scapulæ from its transverse process.

Superior insertion of the multifidus spine into its spinous process.

Superior insertion of the semispinalis colli into its spinous process.

Superior insertion of the transversalis colli into its transverse process.

Part insertion of the longus colli into its body.

Part insertion of the scalenus medius into transverse process.

Interspinalis and intertransversalis colli.

Third Cervical Vertebra.

The vertebral artery makes its first turn upwards and forwards between this bone and the dentatas.

The principal origin of the phrenic nerve is given off from the third cervical.

The bifurcation of the common carotid artery takes place at about opposite this vertebra.

Superior origin of the rectus capitis anticus major from its transverse process.

Part insertion of the longus colli into its body.

Superior origin of the splenius from its spinous process, where the splenii capitis recede.