

an attack of phlegmasia dolens, under which she is now suffering.

"After rupturing the membranes, the hæmorrhage entirely ceased; and it was very fortunate that the uterus acted so immediately and powerfully after the administration of the ergot; for if the birth had been longer delayed, most likely the child would have been lost.

"We have here another example of phlebitis contingent on placenta prævia."

[To be continued.]

XIPHISTERNAL OR PERICARDIAL CHISEL-SOUND, WITH ITS PRACTICAL APPLICATION.

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[Read before the Medical Society of London, April 5th, 1886.]

In bringing before the Medical Society of London the following paper, I am resolved to distinguish facts from hypotheses. I have been for many years in the habit of examining the heart in nearly all cases consulting me; and the result of my observations is, that a chisel-sound at the lower end of the sternum is of frequent occurrence in persons that are in good health in all respects excepting dyspepsia.

Before proceeding further, I beg leave to put forth the following propositions:—

1. (A fact.) A single chisel-sound is frequently heard in the lower sternal region, in persons apparently healthy.
2. (An hypothesis.) The sound is due to "white pericardial patches", plus toxæmia.
3. (A fact.) The sound is usually accompanied by a certain form of dyspepsia, which disappears with it under treatment addressed to the assumed pericardial lesion.
4. (An hypothesis.) The attendant dyspepsia is only sympathetic.
5. (A fact.) The disease (of which the chisel-sound is the manifestation) is almost invariably confounded with ordinary dyspepsia, or some other disorder, although a diagnosis can readily be effected by observing the concurrence of the physical signs with the symptoms.
6. (A fact.) The natural course of the disease is to persist.
7. (A fact.) It is not dangerous to life.
8. (A fact.) It requires no treatment when unaccompanied by disorder of digestion, or of any of the other natural functions.
9. (A fact.) When it is present with any other disease, benefit to that disease usually results from cardiac treatment.
10. (A fact.) It readily yields to mild antiphlogistic treatment, addressed to the assumed lesion.
11. (A fact.) It can only be diminished, but not removed, when the heart is diseased in its valves or muscular tissues.
12. (An hypothesis.) The nature of the disease consists in general dyscrasia, with local perverted nutrition; the dyscrasia being allied to that which is observed in dyspepsia, in gout, or in rheumatism; and the local lesion consisting in milky patches on the pericardium.
13. (An hypothesis.) Toxæmia (or an unhealthy state of the blood, with abnormal condition of the nervous system) invariably coexists with white patches on the pericardium, when the chisel-sound is heard.
14. (An hypothesis.) White patches arise in two modes: (a) by an inflammatory process, and (b) by a non-inflammatory process.
15. (An hypothesis.) The chisel-sound does not follow upon the double friction-sound of mild acute pericarditis, except when dyscrasia supervenes upon the pericarditis.
16. (A fact.) Pericarditis will occur, mild in degree and limited in extent; and will disappear without giving rise to the chisel-sound.
17. (An hypothesis.) The white patches on the pericar-

dium are analogous to those observed on the liver and spleen.

18. (An hypothesis.) The white patches that arise by a perverted nutrition-process are attended, during their formation, by hyperæmia and pain.

I do not attempt an explanation of the physical cause of the chisel-sound. I do not believe that there is sufficient roughness of the pericardium to give rise to the sound. Moreover, roughness or shaginess produces a rubbing, double sound, and not a single chisel-sound, with the movements of the heart against the pericardium. Nor do I believe that dryness of the pericardium will be found to exist.

I now proceed to describe the signs, symptoms, and treatment of the disease.

Description of the Sound. The sound is that of a chisel or short plane used forcibly across the end of a piece of timber. It is single, and synchronous with the systole. It varies in intensity, but never in character. It is heard at the lower end of the sternum, and over the xiphoid cartilage, but not over the upper part of the sternum, nor in the course of the great vessels. When intense, it is heard over the whole sternum, and also over the apex of the heart, but even then it is loudest at the lower end of the sternum. It is exocardial.

The boundaries of the cardiac percussion-sound are extended, more or less; oftentimes but slightly. The direction in which the dullness extends is towards the præcordia. The intensity of the dullness is slightly increased, but not invariably. The impulse is augmented, but not jerking. When there are no symptoms, and the case is of considerable standing, it sometimes happens that there is no increase of the cardiac dullness. Under treatment, the abnormal dullness generally disappears previously to the cessation of the chisel-sound.

Symptoms. The symptoms that commonly coexist with xiphisternal chisel-sound are those of a form of dyspepsia; namely, pallor of countenance in direct proportion to the duration of the complaint; pain in one or more of the following situations—præcordia, lower or middle sternum, left nipple, left hypochondrium, across the lower part of the chest, one or both scapular regions. The pain is invariably increased by the ingestion of food. Sometimes there is an absence of pain, except after eating, when a feeling of tightness across the chest is experienced, together with flatulence. When the pain is felt at the nipple, it is of a stabbing character. The pulse and tongue are in a natural condition, or nearly so. There is a sense of general weakness. Other symptoms are occasionally observed; namely, smarting at the præcordia; sensation of something obstructing the throat; slight cough; mucous secretions from the pharynx, streaked with blood; slight dyspnœa on exertion.

Natural Course. The natural course of the affection is the following. The dullness disappears; the chisel sound persists. Occasional attacks of pain and tightness at the præcordia occur so long as there is chisel-sound, although the individual may feel well in other respects. If treatment be pursued, the roughness of the sound disappears with rapidity proportionate to the early date of the treatment; but the sound is sometimes several months in disappearing. The chisel-sound completely disappears under a continuance of treatment in cases uncomplicated with structural disease of the heart. In many instances in which the chisel sound is heard, a very imperfect history of the case can be elicited from the individual; but in the greater number there is the admission of previous attacks, one or more, of excited cardiac action with pain. It is only during such attacks that inflammatory symptoms show themselves. When the attacks are frequently repeated, a tendency to hypertrophy is given. Some of the attacks are examples of excitement through altered conditions of the blood and nervous system; others are inflammatory.

Diagnosis. This affection is readily detected by the use of the stethoscope. The symptoms are those of dyspepsia,

excepting the unaltered state of the tongue. I believe that the disorder of digestion accompanying the chisel-sound is sympathetic; for the tongue is not loaded as in atonic dyspepsia, nor red as in gastritis mucosa. Stomachics fail to relieve the dyspepsia that accompanies the chisel-sound, whilst mild antiphlogistic and counter-irritation readily afford relief. The pain after food I believe to be due in part to the upward pressure of the loaded stomach against the heart. Sometimes there are no symptoms whatever. In rare cases, weakness constitutes the sole symptom.

A case that occurred many years since made a deep impression on my mind. The man received no benefit from tonics nor from stimulants. I did not comprehend what was the matter with him, as I could not find any derangement of the natural functions. The lungs were not diseased, and the heart was normal, except that there was a single chisel-sound at the lower end of the sternum. I applied a minute blister over the seat of the sound, and gave blue pill with opium, and iodide of potassium in mixture with liquor ammoniæ acetatis. In a few days, the man was strong and well. There had been no change of diet, and no change of residence. This was the first case that convinced me of the importance of treating the chisel-sound when there is any complaint of weakness, discomfort, or illness.

In subsequent cases, also, I have never failed to notice an improvement in the strength of the individual, as well as the speedy disappearance of flatulence and other stomach disorder, under mild antiphlogistic remedies, with counter-irritation to the lower sternal region.

Prognosis. The affection under consideration is not dangerous to life. There is deterioration of the general health, but it is not great in degree, nor is it progressive.

I have not found valvular diseases of the heart to supervene upon the chisel-sound. I have noticed hypertrophy and the chisel-sound coexisting, but these cases have been exceptional. There has been, in these cases, a repetition of inflammatory attacks. If there be but few of such attacks, the mere continuance of the chisel-sound will not give rise to hypertrophy. There may, certainly, be an appreciable increase of the muscular tissue of the heart, but not to a great degree. The chisel-sound I have found coexisting with atrophy of the muscular tissue of the heart. The chisel-sound disease may accompany any cardiac lesion, but it has no tendency to originate any affection excepting hypertrophy.

Treatment. Treatment is not advisable for individuals in perfect health, presenting the chisel-sound as a physical sign merely; but, on the complaint of any ailment, treatment should be adopted. There are few diseases that are not benefited by the removal or diminution of the chisel-sound. Yet it would not be proper to employ this treatment in all acute diseases; it is only in some of the acute, whilst it is in nearly all chronic and subacute disorders, coexisting with chisel-sound, that benefit results from special cardiac treatment.

If there be valvular disease, or if hypertrophy or atrophy coexist with the chisel-sound, removal of the chisel-sound cannot be effected. The asperity of the sound can be diminished, but the sound cannot be removed. When chisel sound is associated with spinal irritation connected with spinal curvature, it can be diminished, but not removed.

The treatment of xiphisternal chisel-sound consists in the use of mild antiphlogistics and resolvents, and in the local abstraction of blood, followed by counter-irritation. Thus—

(1.) Apply from two to six leeches over the lower part of the sternum, or between the xiphoid cartilage and the left nipple.

(2.) Employ a repetition of small blisters, two or four inches square in size, in the same situation.

(3.) Prescribe the following pills:—

℞ Antimonii pot.-tart. gr. ij; extract. hyoscyami gr. xviii.
M. Divide in pilulas xij, quarum sumat j ter quotidie.

(4.) Prescribe the following mixture:—

℞ Liquoris ammoniæ acetatis ℥ij; potassii iodidi ℥j; aquæ cinnamomi ℥ij. M. Cochleare amplum ter quotidie sumat.

(5.) The same mixture, with the addition of half a fluid drachm of tincture of digitalis.

If there be continuance of augmented impulse, as well as of pain, it may be necessary to apply leeches several times. Small numbers at one time are best suited to this affection. Where there is scarcely any increase in the force of the impulse, blisters, repeated several times, are sufficient, without previous leeching. Speedy relief to the feelings of the patient is afforded by this kind of treatment, and amelioration of the physical signs takes place with certainty. I formerly used blue pill with opium, but I prefer tartar emetic with hyoscyamus. I now proceed to relate the outlines of some cases. I regret that I have such scanty details to lay before the Society.

CASE I. Mr. S., a journeyman house-painter, residing in Rochester, applied to a surgeon on the 26th April, 1854. *Symptoms.*—Pallor; faintness; choking sensation in the throat; frothy secretion from enlarged glands in the pharynx; pain about the umbilicus; pain at the præcordia after eating, with flatulence; slight amount of hypochondriasis. Never had lead colic. No pyrexia present.

Physical Signs.—Cardiac dulness scarcely augmented either in extent or in degree. Single, systolic, rough chisel-sound, at the lower end of the sternum. No other morbid sign in the chest. He was treated by salines and laxatives, with taraxacum, but without benefit. He was placed on special cardiac treatment on the 1st May. He reported himself as better on the 3rd, and much better on the 10th. *Physical Signs* on the 15th May. Impulse feeble. No sound audible except the normal heart-sounds. The chisel-sound has disappeared. The pharynx was examined, and found to be papillated. A gargle of sulphate of copper and alum was prescribed. The man soon discharged himself as cured. No leeches were used in this case.

CASE II. Charles F., aged 43 years, shoemaker, residing at Chatham. *Symptoms and Signs.*—Vertigo, dyspepsia, anæmia. Urine of specific gravity 1010, non-coagulable. Augmented cardiac impulse and dulness, with chisel-sound. He applied to me on the 10th November, 1852, and left Chatham on the 20th, much better. Leeches and blisters were used.

CASE III. Mr. Samuel B., aged 51 years, market gardener, residing near Maidstone, of gouty diathesis. *Symptoms and Signs.*—Dyspepsia, headache, torpid bowels, chronic glandular inflammation of the pharynx, epigastric uneasiness, general weakness; tongue tuberculated. Cardiac dulness normal; impulse weak; chisel-sound at the lower end of the sternum. This patient continually takes medicines, and frequently consults medical practitioners. He states that he had inflammation of the liver about a year since. He consulted me on the 3rd June, 1854. He was placed on the treatment that I have recommended, and a silver lotion was prescribed for the pharynx.

Sept. 4th. He was much better in every respect. The chisel-sound soon disappeared. This patient's condition is very much improved, but he is never free from gouty dyspepsia.

[To be continued.]

CASE OF SPONTANEOUS EVACUATION OF THE CRANIUM.

By JOHN HATTON, Esq., Manchester.

Mrs. McD., an intelligent midwife, sent for me on Friday, April 18th, to see Mary Rolly, aged 25 years, who, for thirty-six hours, had been in slight labour of her third child. She stated that she had difficulty in making out the presentation. On examination, I was equally puzzled. The os uteri was dilated to the size of a crown piece, the membranes were exceedingly thick and tough; through