This point of view of course is not new, but it seems probable that more might be done, both prophylactically and therapeutically, if closer attention were paid to the normal mechanisms of body protection.

REFERENCES.

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LOEWI'S ADRENALIN MYDRIASIS AS A SIGN OF PANCREATIC INSUFFICIENCY.

BY

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SERVICE in the army has hitherto prevented me from publishing these notes, which were made in 1914. The cases, which were under the care of Dr. Murray in the Manchester Royal Infirmary, were, clinically, almost identical.

CASE I.

A man, aged 63, was admitted on October 26th, 1914, complaining of jaundice and intense pruritus all over the body. He stated that he had had dyspepsia for several years, had been a heavy beer and whisky drinker, and was very constipated. He first noticed jaundice and pruritus five weeks previous to admission, and for some months his stools had been gradually becoming lighter in colour. He had had no pain whatever over the liver or gall bladder.

Condition on Examination.

The skin, mucous membranes, and sclerotics were all extremely yellow. Emaciation was not marked until later, but the patient said that he had become weaker. The abdomen was distended and there was some ascites. No peristalsis was visible and no distended superficial veins were seen. The right lower border of the liver could be felt $3\frac{1}{2}$ in. below the costal margin. The gall bladder was distended, tense, and tender; it extended down to the level of the umbilicus. The patient vomited once or twice soon after admission. The stools were soft, unformed, almost pure white in colour. The urine showed bile present, no albumin, no sugar, reaction neutral, specific gravity 1008.

After-History.

On November 2nd, 1914, two drops of adrenalin chloride solution (1 in 1,000) were dropped into one eye. After one hour there was no reaction, the pupils remaining exactly equal. The reaction was again negative on November 6th and on November 9th. The patient had free haemorrhage from the bowels and died on November 10th.

Post-mortem Examination.

The jaundice was found to be due to carcinoma of the bile ducts with secondary growths in the liver. Suppurative cholangitis was also present. The gall bladder was greatly distended with serous fluid, but it contained no gall stones. The pancreas was nowhere invaded by the new growth, nor were there any secondary deposits in it, the gland itself being quite healthy.

CASE II.

A man, aged 42, was readmitted to the infirmary about October 1st, 1914, complaining of jaundice. He had had "dyspepsia" during September and October, 1913, and influenza during the early part of that year. At Easter, 1914, he first noticed jaundice, accompanied by severe pruritus. His stools had been clay-coloured for some time. He was admitted on May 26th, 1914, refused operation, and was discharged June 23rd, 1914, "condition unchanged."

Condition on Examination.

The skin, mucous membranes, and sclerotics were very deeply pigmented with bile; he was worn and emaciated, the pruritus was much less than formerly, but there was great tenderness over the gall bladder and attacks of pain round the region of the umbilicus. The gall bladder was distended, and could be felt 3 to 4 inches below the right costal margin. The liver was not enlarged. There was a history of several attacks of epistaxis. No ascites was present, and no distended superficial veins were visible.

After-History.

On October 10th, 1914, two drops of adrenalin chloride solution (1 in 1,000) were dropped into one eye. After one hour there was marked dilatation of the pupil of that eye. On October 28th, and also on November 1st, the test was repeated, with marked positive reaction (dilatation of pupil) on each occasion.

A few days before his death exaggerated peristalsis of the walls of the stomach became visible through the abdominal wall. At the same time, owing to the progressive emaciation, a hard mass became palpable in the region of the head of the pancreas. The stools were clay-coloured; the urine

mahogany-coloured, neutral, specific gravity 1009; bile was present, but no albumin nor sugar. X-ray examination on June 16th, 1914, and also later, had shown no gall stones nor other evidence of disease of the gall bladder. The patient began to vomit everything he took by mouth, became very depressed and stuporous, and died on November 4th.

Post-mortem Examination.

There was found to be malignant disease of the head of the pancreas, which invaded the duodenum and common bile duct. There were metastases in the liver, and obstruction and dilatation of the common bile duct and bile passages. The growth in the pancreas caused stenosis of the duodenum, with secondary dilatation and hypertrophy of the stomach and upper part of the duodenum.

It will be noted that in Case I, in which the pancreas was completely free from disease and quite efficient, Loewi's reaction was completely negative on three separate occasions, whereas in Case II, in which the pancreas was almost completely disorganized, the reaction was markedly positive, also on three separate occasions.

VAGASTHENIA.

BY

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ALL medical practitioners who, as officers or civilians, have been occupied with troops during the war, and those who are still engaged in treating returned soldiers or as members of Pensions Medical Boards, have been, and still are, constantly confronted with the letters D.A.H. My observation leads me to believe that the ideas held as to the meaning of these letters are not very distinct or informative. Broadly and literally, they indicate a condition of increased frequency, slowing or irregularity of the heart beat, or a combination of any two of these. Since these alterations of rhythm occur in many pathological and physiological states, which may depend on disordered function arising outside the heart itself or in the intrinsic structure of that organ, it seems to me that it is desirable to find a phraseology which will not only be less cumbersome but which will bear also some relation to the particular condition that is met with. It is a reflection on the medical profession that its members should so readily follow the Army fashion—neither dignified nor scientific—of labelling things by initial letters. The letters P.U.O., however useful a purpose they may have served until the discovery of a definite disease, which we now know as trench fever, are gradually falling into disuse, and I suggest that their brothers, D.A.H. and V.D.H., should accompany them into the war museum, not again to emerge.

Clinical Characters.

Although the term "D.A.H." may be applied to any of the conditions enumerated above, it is used in the vast majority of cases to signify a symptom group which has been described for many years past as irritable heart or soldier's heart, and it would have been as well to retain these names until we could decide upon a more scientific one. Notwithstanding the divergent views as to the cause of this malady, it has come to be recognized as a definite clinical entity, presenting a well defined and easily determined syndrome, marked by increased frequency of the heart's action, early exhaustion, shortness of breath, dizziness, and frequently precordial pain; less often there is precordial hyperaesthesia. These symptoms are common to all cases of myocardial exhaustion, and it is necessary that we should be able to exclude all forms of structural heart disease before arriving at a definite diagnosis. Murmurs may be and often are present to increase the difficulty of deciding. What are the points, then, which will help us? First and foremost, in my opinion, is the absence of cardiac enlargement; secondly, the rhythm, although much increased in rate, is always regular; the inception of a new rhythm, such as auricular flutter, auricular fibrillation, or extra systoles, never occurs. Murmurs are always systolic in time and soft in character, and are variable—that is to say, they are not always present and alter with the position of the patient, sometimes being audible when he is standing, at others when

he is recumbent. In making this somewhat dogmatic statement I would exclude cases due to rheumatism, for it is probable that these really belong to the class of structural disease, either the endocardium or myocardium being affected. In these cases the inception of a new rhythm is frequently met with, as also some cardiac enlargement.

The Origin of the Disorder.

Many circumstances have been assigned as the cause of the condition; foremost amongst them is the presence in the blood of the toxins of acute infections, especially influenza, but shock, the absence of basic salts in the blood, and other causes have also been suggested. Reflection on the characteristic features of this disorder leads us to believe that it is not due to any affection of the heart itself, interfering with its power of generating stimuli within itself, its faculty of conducting them or its power of contraction, but to something which affects its nervous control. In affections of the myocardium or the conducting paths in the heart we always find some increase in size of the organ, and the inception sooner or later of a new rhythm such as auricular fibrillation, followed eventually by "back pressure symptoms"; these features, in my experience, never occur in cases of irritable heart.

If, then, we conclude that the condition is due to interference with the nervous control of the heart, it must be due either to weakness of vagus action or over-stimulation of the sympathetic. Every medical officer who has served during the war has had cases in which the history could leave no possible doubt that the tachycardia was noticed for the first time after some severe shock, such as a shell explosion in close proximity to the patient, who, before it, was perfectly well. It is the same condition as that which supervenes on fright or shock in all stages of life, more especially in children. It has always been supposed that this latter condition is due to suppression of vagus control, and it is reasonable to suppose that the condition of irritable heart in soldiers is due to the same complex, which, instead of being temporary, persists.

If this view is accepted, I suggest that a more accurately applicable and more scientific name for this symptom-group would be "vagasthenia." A condition of vagotonia in which we get hyperactivity of the vagus mechanism has been described, more especially by Continental writers; why should we not use a name which describes an affection in which an opposite set of factors is at work?

Treatment.

The recognition of this malady as a neurosis gives us an important guide to its treatment. It may be that the methods of the psycho-therapist may meet with the same good results which have attended them in the other forms of neurosis. So far the only method of treatment giving good results has been the employment of graduated exercises, and I believe that these results are due to suggestion, or rather persuasion, as practised by the psycho-therapist, rather than to the effect of exercises on the heart muscle itself. Is it not irrational on any other ground to increase the work of the heart muscle, which is already doing a double amount of work in contracting constantly at almost double its normal rate? May we not hope that a further stage of this treatment—namely, psycho-analysis—may reveal some forgotten shock or emergency in early life which is at the bottom of the trouble, as in so many cases of neurosis which exhibit paralyses, phobias, etc.? My experience in the early stages of the war, when men joined voluntarily and so had not the terror of conscription before them, was that very great numbers suffered from irritable heart from the beginning of their training. Probably they had had it for years previously; it was only when they were called upon for the extra effort entailed in training that they found themselves unfit—that is to say, training did not cause but revealed it.

It is because I feel that ideas generally concerning D.A.H. are so confused, and that the retention of the name D.A.H. tends to perpetuate that confusion, that I put forward the suggested name vagasthenia, in the hope that it may elicit an expression of views from others better qualified than myself to speak on the subject.

ACUTE SUFFOCATIVE CATARRH.

BY

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HAVING read the reports of cases of this condition in recent numbers of the BRITISH MEDICAL JOURNAL, I think it may be useful to publish summaries of similar cases which I have attended since 1914.*

Case 1 occurred in a male of 63, who suffers from Bright's disease, and whose blood pressure is 200 mm. Hg.

He partook of a heavy meal at 6 p.m., and shortly after stood for ten minutes in a cold wind. Having gone in he felt distressed; he was almost immediately seized with urgent dyspnoea, and began to cough up copious brownish frothy expectoration, which flowed from the nose and mouth. His complexion was dusky. He was relieved in ten minutes by hypodermic injection of morphine and atropine and by amyl nitrite inhalations.

Case 2 was that of a woman of 82, suffering from mitral regurgitation.

In November, 1915, two hours after taking a heavy supper, she awoke with intense dyspnoea, rattling in chest, feeble rapid irregular pulse, intense pallor and sweating, and constant cough without expectoration. Râles were audible in the upper part of the chest. She was relieved by injection of morphine and atropine, and digitalin given by the mouth; the chest was clear next day. On February 24th, 1916, a similar attack occurred, and was relieved as before. The patient died in 1917.

Cases 3 and 4 occurred in patients of about 65, who were hearty eaters.

In both there was a sudden attack of dyspnoea with cough and rattling in the chest, but no expectoration; râles were audible, chiefly over the upper portions of the lungs. Relief was obtained by injections of strychnine and by inhalation of amyl nitrite. *Case 4* died seven months afterwards of heart failure with dropsy.

In *Case 5* the patient had suffered from angina pectoris for five years.

From January, 1917, to 1919, his anginal attacks were frequently accompanied by rattling in the chest and oedema of the lungs, with constant dry cough; râles were limited to the upper part of the chest. The attacks usually lasted about an hour, and were relieved by chloral and nitroglycerin, together with amyl nitrite inhalations. He died early this year after an attack of pericarditis.

Case 6, a male of 69, had suffered from bronchitis.

Two hours after retiring he woke suddenly and exhibited cyanosis, dyspnoea, and copious secretion of a brownish-red frothy fluid, which filled the nose and mouth. He was relieved by strychnine and amyl nitrite, and remained fairly well until his sudden death a month afterwards.

Case 7, a man of 54, suffered from aortic regurgitation.

Urgent dyspnoea, with cyanosis, constant cough, and expectoration of a small amount of stained frothy fluid, appeared suddenly at 5 a.m., and were relieved in half an hour by amyl nitrite, nitroglycerin, and brandy. Five hours afterwards the chest, in which continuous "rattlings" had been audible, was clear. He had many subsequent attacks of dyspnoea, in none of which was pulmonary oedema detected. He died five months afterwards (heart failure accelerated by pulmonary embolism).

I have also met with two similar cases in consultation. In both of them the blood pressure was greatly raised; one was relieved by venesection.

In many of the milder cases of this condition the oedema was noted to be limited to the upper part of the chest, and not the basal region, as one would have expected if heart failure were the sole cause. The combination of the three factors—high blood pressure, cold winds, and indiscretions in diet—appears in some cases to act as an exciting cause. If one includes under the heading of "acute suffocative catarrh" the milder forms of this pulmonary oedema the condition is not uncommon.

* The clinical notes have been condensed.

ACCORDING to the official directory for 1920, Luxembourg possesses 129 doctors, 24 dentists, 40 chemists owning a shop and 54 without a shop, 2 druggists, 42 veterinary surgeons, and 199 midwives. At the frontier 19 doctors, 4 veterinary surgeons, and 25 midwives of Luxembourg nationality are allowed to practise in France, and 7 doctors and 25 midwives resident in France have similar permission to practise in adjacent Belgian territory.