During the last few weeks the salivary glands have been affected in a similar manner to the sweat glands of the forehead, and the same aura may herald a sweat or a "mouthful," which latter may also be pink or white.

For the last fortnight she has had attacks of tonic spasm of the muscles of the arms, so that the hands may become rigid in the "accoucheur's position," or she may involuntarily grasp some object, or the hands may be raised and tightly pressed against the back of the head, causing pain in the back and sides, suggesting hysteria. She has suffered from almost continuous headache, frontal and occipital, since the sweating began. She has had no vomiting.

From a scraping of the skin of the forehead staphylococci and streptococci were grown in small numbers only. Histological examination of the sweat shows red and white blood corpuscles in all three types of sweat, but far more in the "pink" sweat than in the others. Bacteriological examination shows staphylococci, a few streptococci, and a Gram-negative bacillus, apparently of the Friedländer group.

The patient was a premature child (eight months); her mother was badly frightened shortly before the birth by being stabbed in the head by a burglar. She has always been addicted to walking and talking in her sleep, but has had no serious illness. A few years ago tenotomy was performed upon both eyes for strabismus. She has not shown any signs of menstruation. There is no tendency to haemophilia in the patient or her family.

Just a week before the sweats commenced she had a very severe shock. Being particularly nervous of air raids, her parents tried to keep her out of their way; one day a gas explosion occurred in the next house while the child was in bed; she was frightened by the noise.

Examination reveals no abnormal signs in the nervous system, heart, lungs, or digestive system. The urine is copious, up to 6 pints daily, is acid, sp. gr. 1020, and contains no albumin or sugar. The reflexes are very brisk and the fundi healthy.

The case would appear to be one of an unusual type of functional disturbance consequent upon the shock of the explosion. It has not hitherto proved amenable to treatment.

INTERMITTENT HAEMATEMESIS FOLLOWING ON AN INJURY TO THE CHEST.

BY

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THE interesting point about the following case is that there were no symptoms of any sort until the patient was injured in 1915. The haemorrhages have all taken place after excessive exertion. Apart from the discomfort and fright caused by the haemorrhages he is in no way handicapped by the condition.

History.

Private K., aged 39, consulted me on March 4th, 1918, on account of haematemesis. In October, 1915, when a cavalryman, he was kicked in the precordial region by a horse. He attended hospital for eight weeks as an out-patient. As far as he knows the ribs were not broken, but he was in strapping for the whole eight weeks. He was said to be suffering from a severe contusion of the chest; there was no vomiting or spitting of blood after the injury, and beyond pain there were no symptoms of any sort; previous to the injury he was quite well, and had been training for service overseas since June, 1915.

Before enlistment he was in extensive business as a book-maker. Both his parents are alive and well; there is no history of heart disease, lung disease, or apoplexy in the family. He has three children alive and well; his wife is healthy, and there have been no miscarriages.

The patient's history is as follows: He has always enjoyed excellent health; there is no specific history. For many years he was a heavy spirit drinker, on occasions drinking as much as one and a half bottles of whisky a day, and he averaged three-quarters of a bottle of whisky daily for ten years. Some three years ago he consulted a medical man, who told him he had a diseased condition of the liver, and advised him to give up spirit drinking; since then he has been for all practical purposes a total abstainer.

Since the injury he has suffered from intermittent precordial pain; about every six months he has had attacks of haematemesis. The attacks come on suddenly without warning, usually during violent exertion. About half a teacupful of blood comes away with a gush; there is no pain at the time

but for a short time after the vomiting he has difficulty in breathing. In the intervals between the attacks he is quite well, but since the accident he has suffered from insomnia.

On February 27th, 1918, while walking up a slope against a very strong wind, he found difficulty in breathing, and blood suddenly rushed into his mouth. Again, on March 3rd, while walking sharply uphill, the same thing happened, only in this case the blood was clotted. He was short of breath for some time after the attack, but was able to walk four miles home and carry on his work next day.

Physical Examination.

Respiratory system: Nothing abnormal found; no evidence of old fracture of ribs.

Circulatory system: Nothing abnormal; no thickening of vessels; no varicose veins.

Nervous system: No objective symptoms.

Abdomen: Much tenderness on palpation over liver; this organ (by percussion) decreased in size; spleen also tender, but not as tender as liver; no history of jaundice; nothing abnormal found otherwise.

Genito-urinary system: No abnormal condition discovered; urine normal.

Haematopoietic system: Nothing abnormal.

Facilities for a more elaborate examination were absent at the time.

Differential Diagnosis.

The haematemesis has, of course, to be differentiated from haemoptysis. In this case there is no history of cough, or of pulmonary or heart disease. Apart from the injury in 1915 there is no reference to any chest trouble. The patient states that the blood is in his mouth before he has any warning, and that on March 3rd the blood was clotted.

The patient can give no information as to the presence of food in the vomit. There is no history of melaena. The absence of pain in the intervals helps to differentiate from gastric, duodenal, and oesophageal ulcers (peptic). The absence of wasting helps to differentiate from malignant disease. The absence of anaemia is a strong point in excluding ulceration of any sort.

There is no haemophilia or abnormal blood condition; there is no affection of throat or nose which might account for the haemorrhage. The history of excessive spirit drinking spread over many years (confirmed by condition of liver and spleen found on examination) points to the condition being secondary to the hepatic (or splenic) condition.

Treatment.

The patient has been advised to abstain from spirit drinking and lead a normal, active, healthy life, but to avoid all undue exertions, such as rushing upstairs and walking quickly up hills. He has been advised to take his meals slowly and not bolt his food, and to abstain from drinking very warm fluids. No drug treatment has been given.

I think the probable cause of the recurrent haemorrhages is a varicose condition of the veins at the lower end of the oesophagus. The absence of any arterio-sclerosis excludes a small aneurysm. The veins may have been injured by the trauma to the chest, and so an extra strain has been thrown on veins already weakened by cirrhosis of the liver and spleen.

I beg to acknowledge the kindness of Surgeon-General Julian, D.D.M.S. Western Command, for permission to publish this case.

THE PHAGOCYTIC RESPONSE TO THE INTRODUCTION OF BACTERIA INTO CLEAN WOUNDS.

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In the course of an extensive experience of the bacterial flora of war wounds I have been struck by the small numbers of *B. coli* which are present as the wound tends to clean. Even wounds of the buttock which are repeatedly contaminated with faeces contain after a few days comparatively few *B. coli* although they are swarming with enterococci.

At first I imagined that the explanation of the selective effect of the wound on faecal flora might be that the wound fluids offered an unsuitable medium for the growth of *B. coli*. No doubt this is an important factor, but the following few experiments show that the immunity is an active one, and that the phagocyte plays an effective part in its production.

Experiment I.—Fate of Living Culture of *B. coli* Introduced into a Clean Wound.

The patient (R.) had a wound (6 cm. by 5 cm.) of right forearm just below the elbow-joint. On November 23rd, 1917, the wound was granulating, and a swab taken on that date gave a growth