died of adynamia. Autopsy revealed a complication, the primary growth being an ulcer of the base of the tongue with numerous metastases, including the visible ones of the neck. The right adrenal was the seat of a cancerous metastases, while its fellow appeared to be hypertrophied. The second patient was a man of 24 years, who went through a typhoid fever complicated with perforation and peritonitis. Owing to the profound state of depression, a surgical operation was out of the question. The presence of the white line and low bloodpressure showed the condition of the adrenal functions. Death was preceded by the development of acute hemorrhagic diathesis. There was a marked anatomical foundation for the adrenal insufficiency, but the lesions could not be interpreted beyond evidences of degeneration of some sort. Such lesions have frequently been encountered in death from acute infectious diseases, but the rationale is not apparent, although the adrenals have evidently lost most of their lipid content.

Ohno, S. ADRENALIN CONTENT OF SUPRARENALS AFTER DEATH FROM BERI-BERI. [Mitteil. d. med. Gesellsch. z. Tokio, March 5, 1917.]

On the basis of the post-mortem examination of ten acute beri-beri cases, and of two which occurred during pregnancy, the author finds a medullary hypertrophy of the suprarenal and an increased adrenalin content. The chemical examination was made by the Comessatti method and the average for the left gland was 14.96 mg. It is as yet unknown what relation exists between the clinical manifestations of beri-beri, especially of the acute type, and this adrenalin-hyperfunction.

Baudron, S. SERGEANT'S WHITE LINE IN SOLDIERS. [Journal de médecine et de chirurgie pratiques, July 25, 1918.]

The author carried on an investigation for Sergeant's white line in 100 soldiers in a garrison infirmary. The technique was carried out in the usual manner, the skin of the abdomen being stroked gently with the pulp of the finger; a slight pressure is necessary. At the expiration of a few minutes one sees the appearance in the track of the finger of a white streak, which increases in distinctness until a maximum is reached, remains stationary for a longer or shorter time, and then slowly effaces itself. The interpretation of this line has led to controversy, and it was to throw more light on the subject that the research was carried out. Military exigencies are also much more favorable for the occurrence of conditions which favor the development of the line than civil life, for there we find constantly states of infection or intoxication in combination with overwork and fatigue. In the hundred subjects examined the line was elicited in 81. It was present in all but two of the following febrile cases and in 17 out of 20 subjects with gonorrhea. It was never absent in grip, rheumatism, malaria, or tuberculosis, and was encountered in a variety of purely local conditions, as gingivitis and orchitis. The

conclusions of the author concerning the white line are as follows: It is of great value in certain emergencies of differential diagnosis, as when acute adrenal insufficiency is confused with a pyrexia of meningeal, thoracic, or abdominal origin. Its association with certain infections like grip and rheumatism means a certain degree of asthenia and hypotension, and betrays the implication of the adrenals in the disease picture. Here it does not indicate a serious state of affairs in comparison with the severe syndromes of acute adrenal insufficiency, with collapse, and does not carry a bad prognosis. Finally, when encountered in association with some trivial local condition, it represents a mere coincidence, or is due to a transitory disturbance of vasomotor equilibrium.

Cramer, W. THYROID ADRENAL APPARATUS. 1. DEMONSTRATION OF ADRENALIN GRANULES IN THE SUPRARENAL GLAND; 2. FUNCTIONAL ACTIVITY OF THE SUPRARENAL MEDULLA IN PATHOLOGICAL CONDITIONS. [Jour. of Physiology, Apr., 1918.]

Cramer has made a study to determine in greater detail than by past methods, the secretory activity of the cells of the suprarenal medulla. For Cramer believes that a hyperthyroidism denotes a slight but continuous hyperadrenalism. The chemical heat regulation of the body he also believes to be dependent upon an autacoid mechanism of which the thyroid and suprarenals form a part. He finds the chromaffin reaction inadequate to discover the finer changes occurring during the functional activity of the suprarenal cells. Ordinary fixatives also give misleading results. He therefore used osmic acid in the form of a vapor, and with this method obtained an excellent picture of the medullary cells containing the adrenalin granules. The test was applied to the suprarenal glands of rats and mice in which the alteration in the functional activity of the glands was produced by thyroid feeding, exposure to cold, injections of β -tetrahydronaphthylamine and of cultures of organisms of the vibron septique type isolated from cases of gas gangrene. Very clear evidence was obtained of distinct changes in the medullary cells. Intense secretory activity induced by injection of tetrahydronaphthylamine showed clearly the passage of adrenalin granules into the blood vessels of the medulla. Exhaustion of the glands by vibron septique or cold cause the granules to disappear. Also when increased functional activity of the glands is induced fine black granules, which may be actually adrenalin, or presursors of it, appear in the cortex. This shows that functionally the medulla and the cortex are not two independent organs. The adrenalin granules gradually disappear after the animal's death, though if kept cold they remain for a longer time. This, it is suggested, might be elaborated into a medicolegal test.

Cramer reports also on the value of the histochemical method of studying both the activity of the suprarenal gland and its load of ad-