organized philanthropy if wisely directed. Yet all these means will fail to attain what we could wish unless we add one additional measure, the segregation of the infant from sources of contagion. The French have seen the light more distinctly than other nations. In France the formula is: Either remove the young child from the presence of the consumptive or the consumptive from his family, if there are young children. The child must by all means be prevented from receiving the massive infections which it is sure to get if it lives with the coughing consumptive.

Here is a definite program, but what a difficult one, for against it are all the impulses of the most sacred affection, the love of parents for their children. This brings us back to the consumptive soldier. At the beginning of the war it was recommended that the tuberculous should be returned to the vicinity of their homes for treatment in order that they might visit their families or that their families might visit them. This I call unthinking philanthropy. Often it is true such visits might do no harm, but the distinction between harmless and harmful is not clearly made. The new baby will infallibly be brought along for the father to see it, unless education is vigorously instituted in advance of the father's return. What an advantage for the children if the father cannot come home to them! How much higher the moral elevation of the man who is taught to sacrifice his paternal yearnings to the best interests of his children, than that of him who cannot consent to live without his family! There is much to be effected in this direction by careful instruction of the consumptive and of the adult members of his family. But what shall be done with the minority of the careless and the wilful—those who cannot or will not understand, the weaklings who are ready to sacrifice the welfare of their infants to their own selfish longings? Shall they be restrained by the hand of the law or shall their children be taken from them to be cared for in public institutions? The French say, yes. What shall we say when the question must be met? Do we recognize sufficiently that true philanthropy sometimes hides behind a mask of sternness?

CARE OF CONSUMPTIVE SOLDIERS AND THEIR FAMILIES

Nothing could be finer than the spirit of our people in these sad times. Nearly all are anxious to help in some way, feeling that they must do something for their country. Sometimes there is the regret on the part of those who must stay at home that there are not more numerous ways in which they can do something really useful and sacrifice their ease and pleasure to some good purpose in the cause of patriotism. Intelligent cooperation in the care and management of the wounded and sick soldiers and in providing for their families is one of the directions in which the energies of the charitable can find an outlet. I bespeak your interest and sympathy for that peculiarly unfortunate class, the consumptive soldiers and for their families. Would that I could hope that my words have thrown some light on the difficult problems which must be met in the sociological study of the tuberculous and in practical benevolence as extended to them.

It is commonly remarked that this terrible and gigantic war has changed the world. We shall never again be the same people. The moral uplift of the present is unmistakable. We are willing to sacrifice ourselves now for our country. May we not hope that this patriotic devotion, this moral uplift, will con-

tinue after the war has ended? We are willing now to get together, to labor in unison for our soldiers. We are willing to work at hard tasks, without compensation oftentimes, in order that the business of the country may cooperate to the best advantage with the fighting force. Why should not this organized effort continue after the war? Our country is no less our beloved country because peace has come. Why should we not put our team-work in which we are now so experienced at the disposal of the noble cause of philanthropy, see that the poor are not oppressed, know what goes on in our jails, our asylums, our workhouses, elevate the submerged fraction of the population, and abate the causes of disease and accident. His army experience is but an episode in the life of the tuberculous soldier. He, as a rule, owed his tuberculosis to the conditions of civilian life before he entered the army. The tuberculosis of the army merges into that of the whole population. The great problem of tuberculosis will remain after our army has laid down its arms as one that calls for all our efforts, yet is, we may confidently believe, a problem for which in time we can, we must, find a triumphant solution.

WAR EDEMA (KRIEGSOEDEM)

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From June, 1916, until February, 1918, I was a captive in the hands of the Germans, and for the most of that time I was employed as medical officer at Minden, one of the largest concentration camps for prisoners of war in the province of Westphalia. During my thirteen months there, many thousands of prisoners of all the Allies passed through our hands. One of the most prevalent diseases observed there was the condition called by some German observers *Kriegsoedem* (war edema), or, as it was officially known at Minden, *Erschöpfungszustand mit oedem* (state of exhaustion with edema).

ETIOLOGY

The condition was found chiefly among the Russians and Roumanians, and was especially common during the spring and summer of 1917. Latterly, the Italians captured in the autumn of 1917 were the chief sufferers. The French prisoners at reprisal camps and the English prisoners, who were kept working on lines of communication, also suffered from the disease. In other words, this disease was found among those prisoners who received only German rations, and the disease was most prevalent at the time when the German rations were poorest, that is, the spring and early summer of 1917. During my stay at Minden, I saw about 400 cases in all.

Undoubtedly, insufficient food is the cause of the condition. The German ration is very low in protein and is almost fat free. Unfortunately, accurate analyses could not be made. As the food is given almost entirely in the form of soup, a large quantity of fluid is ingested to obtain a small amount of nourishment. I found that many of these men were in the habit of taking considerable quantities of common salt in solution in addition to their soup. As the whole organism was weakened from insufficient food and

hard work, it is conceivable that the extra load of fluid was too great to be eliminated.

CLINICAL HISTORY

The condition commences as a slight edema of the feet and legs, disappearing when the patient is recumbent. Patients were seldom admitted to hospital in this stage, although rest in bed would restore them in a short time.

The usual type admitted to hospital presented a massive edema of the legs, thighs and genitalia, with some puffiness of the eyelids. In bad cases there was edema also of the chest and abdominal walls. Patients complain of general weakness and pain in the legs, especially in the tibiae. They are usually very apathetic. There is extreme muscular wasting and marked pallor. The whole appearance is strikingly similar to that found in chronic parenchymatous nephritis. Uncomplicated cases are afebrile.

The heart dulness is slightly increased to the left. The apex beat is diffuse and feeble. The heart's action is regular, but usually slow. Muscular tone is poor. The blood pressure is low.¹ Hydropericardium was present in a number of cases, but never marked.

Hydrothorax was common and usually bilateral. It was sometimes most copious. In one case I removed 15,000 c.c. by a series of six punctures during a space of two weeks.

Ascites was very common and was sometimes extreme, necessitating paracentesis.

The liver, spleen and kidneys were not palpable.

The amount of urine was variable. At first scanty, it became profuse, as the patient recovered. It never contained albumin or casts. No quantitative chemical tests could be made.

COURSE OF DISEASE

In most uncomplicated cases the patients improved slowly with rest in bed and an increase of German rations. Where abundant food, including meat and fat, could be obtained and was tolerated, improvement was rapid, even without rest. Digitalis and theobromin sodiosalicylate were used, but without appreciable result. Edema of the legs after work persisted for several months, even after the patient had improved markedly in general strength. Relapses were common.

COMPLICATIONS

Dermatitis of the legs was common, and in a few cases lymphangitis and cellulitis.

Bronchitis frequently was present, and in most of the fatal cases there was bronchopneumonia and edema of the lungs.

Colitis, with mucus and blood in the stool, was the most common and troublesome complication. No specific organism was isolated as a cause of this colitis. It is significant that diarrhea of this type rarely occurred among the well-fed prisoners, although they were exposed to the infection, if this was an infectious diarrhea. As a complication of edema, this colitis was often fatal.

PATHOLOGIC FINDINGS

About twenty necropsies were performed in cases of war edema. The most striking feature was the total absence of fat in the body. At the normal sites for fat deposit, in the subcutaneous tissue, in

1. No facilities were allowed me for the proper estimation of blood pressure, for blood examination or histologic work. Also the collection of statistics was forbidden me, so that I have been unable to give exact figures with regard to cases.

the omentum and mesenteries, about the kidneys and on the heart, the fat was replaced by edema, producing a translucent, gelatinous tissue.

The heart muscle was pale and flabby. The ventricles were moderately dilated.

The pericardium, the pleural sacs and the peritoneal cavity were filled with clear fluid. Old pleural adhesions were often found, and in one case there were many peritoneal adhesions between the liver and the diaphragm.

The lungs usually showed bronchopneumonia and edema.

The kidneys, liver and spleen were pale, but otherwise showed no macroscopic changes.

The liver was usually small.

When colitis had been present, there was thickening and hyperemia of the rectum, sigmoid and the descending colon. Two cases of superficial ulceration were found.

CONCLUSIONS

Kriegsoedem is the result of underfeeding. I believe that the absence of fat in the diet is the chief factor in causing the condition. It is possible that there may be also a mechanical factor in its production. There is general asthenia as a result of hard work, exposure, insufficient food and depressing environment. The large amounts of fluid ingested, together with the increased amount of sodium chlorid, may form too great a load to be eliminated by a weakened myocardium through poorly nourished kidneys.

THE PREDISPOSITION OF STREPTOCOCCUS CARRIERS TO THE COMPLICATIONS OF MEASLES

RESULTS OF SEPARATION OF CARRIERS FROM NON-CARRIERS AT A BASE HOSPITAL *

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It is evident from reports coming from various Army cantonments¹ that measles, because of the severity and frequency of its complications, must be regarded as a serious camp disease. Complications necessitate long hospitalization and cause, therefore, a high noneffective rate; bronchopneumonia and empyema have been responsible for many deaths. With surprising uniformity, the complications have been due to infection with a hemolytic streptococcus.

In the report of a commission² sent by the Surgeon-General of the Army to study the pneumonia at San Antonio, Texas, two significant facts concerning the relation of the streptococcus to the complications of measles were pointed out: First; a relatively small number of measles patients (11.4 per cent.) harbored

* From the Medical and Laboratory Services, Base Hospital, Camp Zachary Taylor, Ky.

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