

shaft of which appears to have broken in the chest-wall. At the point marked in ink there is an ununited fracture of the fourth rib. By pressing on the rib the free end of the inside fragment can be distinctly felt. Inside of the mammary line on the fifth rib is another ununited fracture. There is a deformity also of the second rib indicating probable fracture at the junction of the cartilage and the rib. The hospital record gives a history of pulmonary emphysema. He had a cough with bloody expectoration, very high rate of respiration for about three weeks and there remains a chronic vesicular emphysema. As he coughs it will be observed that the lung fills up the intercostal spaces and projects a little beyond. I have called this lesion vesicular emphysema, this being the term first proposed by Lænnec, which is in reality a misnomer. Strictly speaking, emphysema is limited to the infiltration of air into the interlobular areolar tissue or into the subpleural areolar tissue. The theory originally pronounced by Rokitsansky seems to fully explain the situation in this case: that there is produced a histological change in the lung resulting from perforation by the broken ribs; that the septa of the vesicles become subsequently atrophied and perforated until several cells coalesce. In looking up the literature of *emphysema vesiculare* I found one case reported by Guttman of Berlin in which the lung was nearly converted into one large vesicle.

This occurred September 19, 1896. The question is how much was he disabled by this injury and what will be the ultimate result of the emphysema. He does not make any complaint of breathing, but the pressure of the outer fragments into the lung gives difficulty on working, therefore he is incapacitated for heavy work. The emphysema, by reason of its tendency to impair the nutrition of the lung, must be regarded as a progressive disease. There is no cardiac complication.

DR. C. P. PUTNAM: This tumor makes its appearance outside of the ribs. It would seem that it must be a subcutaneous cavity connecting with the lung, rather than a cavity in the lung itself. An emphysematous cavity in the lung itself could, one would think, at best only cause a bulging between the ribs.

DR. NICHOLS: If that had been the original lesion, I think the air would have long since been absorbed. If there were infiltration of air from the lung into the subcutaneous cellular tissue there would be present the unequivocal physical signs of pneumothorax. In the few cases recorded of traumatic emphysema the inflation and projection of the lung correspond identically with what we find in this man. As here the pectoral muscles usually undergo atrophy.

DR. EDWIN W. DWIGHT read a paper on
RUPTURES OF THE VISCERA AND THEIR CONNECTION
WITH SURGICAL SHOCK.¹

DR. WHITNEY: In experiments on animals injury of the suprarenal capsule is at times associated with rapid death of the animal without other changes in the body. The capsules are very small bodies and easily overlooked. Attention should be directed to the suprarenal capsules in cases where lesions of other organs are insignificant, as a rupture of them might be a death factor. The intimate connection of these with the large ganglionic centres of the abdomen has been noted.

¹ See page 171 of the Journal.

The PRESIDENT: The reader spoke of pneumonia as following chest injuries; I should like to inquire whether after chest injuries true lobar pneumonia is a common sequence, and if so after what interval, early or remote.

DR. DWIGHT: In 511 cases of fractured rib there were 40 deaths; 29 died in three days, 11 after three days. There were nine autopsies, of which three died from pneumonia (which was described as being lobar pneumonia distinctly) three from hemorrhage from ruptured lungs, and three from ruptures of the spleen. As I considered no cases except those with autopsies, I cannot answer the question except to say that such symptoms as spitting of blood and a certain amount of respiratory disturbance were common in those cases I have studied. Those three who died from hemorrhage of the lungs were what might be called pneumonitis.

It was not my purpose to discuss the question of treatment of these ruptures of the viscera, but rather to call attention to the possibility of ruptures of the viscera complicating other injuries. We frequently see cases of compound fractures which need to be etherized and put up; and the question comes whether the operation shall be done then or in the future. In many of the cases there is distinct shock, and the idea I intended to convey was that in cases of doubt it is better to let them alone. I think we have good reason to suppose many of them get well; as Dr. Richardson said of ruptures of the kidney, that "he had not seen any of them die." I think that this is also true of other organs. In connection with what Dr. Whitney said, I remember distinctly one case in which there was a very small laceration of the kidney, and the wording of the autopsy was that the right kidney lay in a mass of blood and blood-infiltrated tissues, that some of this blood had penetrated beneath the capsule of the kidney and that free blood was found in the pelvis of the kidney. Possibly this was a case of rupture of the supra-renal capsule.

DR. WHITNEY: There was a case of injury of the pancreas at the Massachusetts General Hospital, and some necrosis of fat tissue existed. I should like to ask whether this was associated with any of these cases of rupture of the pancreas.

DR. DWIGHT: In Dr. Cushing's case there was no sign of it, and in the other case the death occurred rapidly from injury to other organs.

BOSTON MEDICO-PSYCHOLOGICAL SOCIETY.

H. C. BALDWIN, M.D., SECRETARY.

MEETING of February 17, 1897.

DR. HOCH read a paper on

A CASE OF ACUTE INSANITY ASSOCIATED WITH DEFINITE CHANGES IN THE INTERNAL STRUCTURE OF THE NERVE-CELLS.

The case was that of a young man who had had a previous attack of insanity characterized by the presence of the symptoms of acute maniacal excitement. In the present attack there were at first some maniacal symptoms, but during much the greater part of the attack the patient was dazed and frightened. The pulse was constantly rapid, the temperature was somewhat elevated, and he slept none. The attack

was one of unusual severity, and the patient died in 10 days. The diagnosis is in all probability a depressive phase of periodic insanity (Kraepelin).

The changes in the nerve-cells (all the cells in the cortex were affected) consisted in a complete disappearance of all the chromophilic substance, the cells at the same time often preserving well their outlines. Some cells had deteriorated further, and the cytoplasm had begun to break up. The nuclei also were altered, being more homogeneous than the normal, more deeply stained and more compact in appearance, often uneven in outline, and surrounded by a lighter ring. The same changes were found in the Purkinje cells and their nuclei. In the lower portion of the medulla oblongata the anterior horn cells were much less affected; the nuclei were normal, the cytoplasm in the cell-body showed only beginning changes, and in the protoplasmatic processes the chromophilic substance was well stained and discrete. Nissl's method was used.

Dr. Hoch maintained that changes like those described must be due to something extraneous to the cells themselves, and spoke of a poison as being the most likely cause. The interest of the case lies in the fact that in a case of so-called functional psychosis there are found definite changes in the nerve-cells.

Stained sections from the cortex of this case and from a normal brain were exhibited through the microscope.

DR. W. L. WORCESTER, of Danvers, opened the discussion by saying that the toxic theory, as the cause of a large proportion of mental disturbances, is gaining ground. Kraepelin classes katatonia among the toxic insanities. Van Gieson describes lesions similar to the ones in this case as due to toxic causes. He thinks these lesions pathognomonic, and would not admit the toxic nature of cases in which they do not occur. There is, in his opinion, a tendency for the same sort of poisoning to occur again and again with intervals of health. This he believes to be the case in epilepsy, which he holds to be, in a large proportion of cases, due to intoxication from the alimentary canal.

DR. ADOLPH MEYER, of Worcester, said that, since in Cramer's case the nuclei of the brain axis had not been examined, one could be in doubt as to whether the changes in the cells were really limited to the cortex. But Dr. Hoch's case leaves no doubt in this respect. He concurred with the reader as regards his clinical view of the case, and in the idea that the lesion was unusually marked. It remains to be seen whether Nissl or Van Gieson is right; the latter claims that all poisons produce similar changes, whereas Nissl found differences both in the character and in the localization of the cell-changes.

DR. P. C. KNAPP agreed that the toxic theory was a very probable explanation of the case. He asked if this could be a case of amentia or acute exhaustion psychosis; and if Dr. Hoch found changes in different parts of the cortex, involving different centres.

DR. NOYES asked if this could be a case of galloping general paralysis. Dr. Hoch replied that the brain changes would have been different; and besides there was no specific history.

DR. TUTTLE thought that Dr. Hoch was conservative as to the value of the changes that he had found, and asked if researches had been made and changes found in ordinary cases of disease, especially in cases with high fever.

DR. HOCH replied that the normal cell that was shown came from a case of septicemia.

DR. TUTTLE then said that similar changes had been found by Van Gieson in cases of sunstroke.

DR. TAYLOR remarked that Van Gieson states that the affected cells have a tendency to recovery in these toxic processes.

DR. HOCH, in closing said that while he did not wish to lay too much stress upon the toxic theory, there was a good deal of reason for speaking of it in this case.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

NINETEENTH ANNUAL CONGRESS, HELD AT
WASHINGTON, D. C., MAY 4-6, 1897.

FIRST DAY. — TUESDAY.

THE President, DR. CHARLES H. KNIGHT, of New York, delivered the Annual Address.

PRESIDENT'S ADDRESS.

Attention was called to several matters of current interest. A protest was made against carelessness in clinical work, especially with regard to the non-observance of antiseptic precautions. Lamentable consequences may ensue from a careless non-observance of those rules with which we are all supposed to be perfectly familiar.

Closely allied to this topic was that of antiseptics in general. In the wounds we are in the habit of inflicting, absolute asepsis may be impossible, and perhaps, in view of the perfect drainage usually secured, unnecessary. The story of the birth of antisepticism has very recently been modestly told by Lister himself. The application of the principles laid down by him banished hospital gangrene in a single day from surgical practice. Syme believed that amputation, rather than any attempt to save the limb, was the proper course to follow in all compound fractures of the leg. Putrefaction was universal, and yielded only to the introduction of carbolic acid, to which the Father of Antisepsis still adheres as the safest and most efficient antiseptic.

A spirit of wise conservatism has always characterized the work of this Association. It has not given its adherence to every passing fad. The premature announcement of new therapeutic measures which trial proves to be inert has taught us all a healthy scepticism.

The value of the laryngoscope in relation to the singing voice is another matter of timely discussion. It has at least corroborated knowledge acquired in other ways. Recent cases of laryngectomy have taught us that the voice can be developed after operation by means of the aid provided by the teeth, lips, palate, tongue, pharyngeal wall, nasal cavities and the skull bones. While there is no agreement as to all the elements concerned in the production of the singing voice, doubtless all the information given by the laryngoscope as to the position and movements of the vocal cords in tone formation has already been furnished by dissection of the larynx. The mirror does not show why, of two individuals with apparently identical vocal apparatus, one sings while the other cannot sing a note. Nor does it tell us why a singer of artistic temperament and acquainted with all the