

ruddy and strong, and on discharge weighed thirty-five pounds more than at date of admission. After her discharge she spent the rest of the winter and spring in visiting friends in New York, and on her return home continued well until the accident to which I have already alluded.

CASE V. G. H., a highly educated and cultivated lady, soon after a sojourn in Europe and four years' residence with her sister's family in a Western city, where her time was mostly spent in aiding her in the devoted care of an insane husband, began to lose flesh, strength, and color, and feel wearied at trivial causes. Walking became tiresome; doing for others more so. She oscillated between her couch and slight exertions, among other things making occasional translations from the German for publication; grew dyspeptic, ate but little, and at times became emotional and morbid in her views of life. Failing to obtain material benefit from her own physician she came to the Adams Nervine Asylum. On treatment by rest, etc., a method so well adapted for these thin-blooded, feeble people, she gained in vigor and flesh, and went away well, weighing twenty-nine and a half pounds more than when she came. She has also continued to maintain a sound state of health.

It may be objected, that the number of cases cited is too small for satisfactory proof of the position assumed in this paper. But when such proofs are founded on personal examinations after one and two years' time, the duration of cure under these circumstances must possess some value in determining the permanency of results. Other examples of cure might be adduced, but they are purposely omitted, because the fact of permanency has not been obtained since date of discharge by other than hearsay evidence.

In conclusion, though not wholly germane to the subject, it may not be uninteresting to advert to the causes which produce the class of nervous invalids to which the cases enumerated belong. As, however, the five mentioned are insufficient for practical deductions, I offer the following statistics taken from the records of the same institution:—

Since date of opening when the first patient was received, to wit, April 1, 1880, 123 females have been admitted. Of these 45, or 36.5 per cent., were housewives; 39, or .317 per cent., had no occupation; 18, or 15+ per cent., were teachers; and 21, or 17+ per cent., with the exception of five, who were nurses, were quite evenly distributed among twelve different occupations or trades.

To analyze these statistics more closely, it is found that among housewives, overwork, care, and anxiety from domestic trouble and affliction were the assigned causes, and the same is essentially true of teachers, and those seventeen per cent. who were engaged in nearly as many occupations. Among teachers, however, overwork and care for others were expressed as the larger operative causes, though legitimate work in their profession was more frequently found to be associated with a distaste rather than from a love for it, and distasteful work of any kind is not apt to be healthy work. There is too much friction in it. As expressed by one teacher, who is a highly cultivated and intelligent woman, now under my care, "It was trouble and the care of an invalid at home that broke me down, not overwork in my profession, although more branches are now compressed into the same time where a less number was formerly thought sufficient."

Yet to one who is not fond of this work I can readily understand how a breakdown may occur, but not in one who really loves the work. It certainly did not break me down."

Of the 39, or .317 per cent., who did no work or had no occupation, it is a curious fact that but one attributed her present state of ill health to over study, and she is a Wellesley College graduate of comparatively recent date. The others broke down from underwork, or rather from leading aimless, listless, inactive lives. If these statistics afford any truthful indication of the causes which break females down and develop the peculiar nervous phenomena which are now so well known under the name of nerve tire, neuro-asthenia, or nervous exhaustion, they certainly point on one hand to the "tear of life" rather than its "wear," and on the other to the *ennui* of life, as prominent factors, and that after all, honest study and honest teaching, like all honest mental work, are absolutely conducive to sound health.

### TENOSYNOVITIS :<sup>1</sup>

ITS CAUSES, NATURE, SYMPTOMS, AND TREATMENT;  
BASED UPON AN ANALYSIS OF FIFTEEN CASES.

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TENOSYNOVITIS may be defined as an affection usually occurring in the forearm, and characterized by a peculiar creaking of the tendons as they move in their sheaths, depending upon a particular kind of strain to which the muscles belonging to these tendons have been subjected.

*Cause.*—The predisposing cause of the affection is the occupation of the individual, and in studying, therefore, fifteen cases, occurring in subjects of otherwise average health, the nature of their employment is worthy of special attention. In three of the fifteen the disease occurred in men employed in a dye-house, whose work consisted in wringing the goods, which had been soaked in dye; in two the patients were weavers, who threw the shuttle from side to side with the index finger of the right hand; one case occurred in a baker, from kneading bread; one in a boiler riveter, from hammering; one in a car driver, from using the brake; one in an iron moulder, from continued use of the shovel; one in a plaster worker, from stirring plaster with a hoe; one in a washerwoman, from using a clothes wringer; one in a laborer, who continued to work after receiving a severe contusion of the forearm from the fall of a heavy iron pipe; and one each in a rope twister, a marble rubber, and a painter.

In contrasting the above-named occupations with many others requiring far more muscular effort, and giving employment to many more workmen than these, the idea suggests itself that it is not the mere amount of strain to which the muscles and their tendons are put that predisposes to the disease, but rather the kind of effort, which is of a tedious, continuous, monotonous sort. On the other hand, trades which would appear likely to furnish subjects for the disease more frequently than those which have been already spoken of fail to do so. This, in some instances, can be explained. Gold beating, for example,

<sup>1</sup> Read before the College of Physicians, Philadelphia, June 7, 1882.

where an eight-pound hammer is used almost uninterruptedly for five hours, and is carried from above the shoulder down to the level of the waist, would seem to contradict this view, as the disease is unknown to one of the largest gold leaf manufacturers; a careful study of the movements of the operatives in performing this work, however, shows that the strain is not upon the muscles of the forearm, but rather upon those of the shoulder and arm; as the hammer descends simply by gravity and returns by recoil from the elastic block, composed of alternate sheets of gold and animal membrane, to a point where the biceps and deltoid muscles complete the elevation.

The exciting cause of the attack is usually the resumption of work to which the individual is thoroughly accustomed, after a shorter or longer interval, when he is out of practice, and when the parts involved in executing special movements have become less actively nourished; though in the case of the washerwoman the clothes wringer was used for the first time, and the rope twister was doing work that was new to him. In the laborer the attack was of traumatic origin.

**Pathology.**—The means of determining the exact lesion in this disease are necessarily to a certain extent conjectural, but as the pain and crepitation are coincident in their onset and subsidence, as there is no impairment of motion after recovery has occurred, and, as the parts under treatment regain their normal condition in a very short time, it seems highly probable that there is no true inflammatory process at all, certainly none extending beyond the stage of congestion, and that the creaking which exists is due to insufficient lubrication, with consequent dryness, not, as has been supposed, to exudation of lymph. Under rest and counter-irritation the congestion very soon disappears, the synovial surfaces pour out their proper fluid, and the tendons once more move smoothly and noiselessly in their sheaths.

**Symptoms.**—Soreness, amounting to positive pain upon motion or pressure along the course of the affected tendons, inability to use the part, and the presence of the peculiar creaking, which is communicated to the finger on palpation, are the symptoms which denote the existence of tenosynovitis.

**Diagnosis.**—From its common seat upon the dorsum of the forearm this affection may be mistaken for fracture of the radius. The history of the case, however, showing that there has been no blow or fall, as a rule; the quality of the crepitus, which is much softer and finer than that of fracture, and like that of cellular emphysema after fracture of the ribs, or that produced by rubbing two pieces of cloth between the fingers, and the way in which the crepitation may be elicited,—all leave little chance of error. The disease will not be mistaken for a strain of the muscle, if a careful physical examination is made.

**Treatment.**—From what has been already said, it will be seen that the disease is at once acute, painful, and disabling. It, however, yields, as a rule, readily to treatment; for the patient can seldom work more than a day after he is attacked, and finding that he exhausts the usual home embrocations, without relief, promptly seeks aid elsewhere; this enables the surgeon to institute treatment before an advanced stage is reached and permanent mischief done by a deposition of plastic matter. Absolute rest of all the parts concerned is the most important element in

the treatment; a palmar splint, therefore, from the elbow to the tips of the fingers is applied, when the forearm is the part affected. Counter-irritation is next indicated, and may be employed in one of two ways. If the skin is red, a band one inch broad of tincture of iodine should be painted in an oval form around the area over which creaking is felt; while a lotion of lead water and laudanum is applied within this band. In cases where there is but slight creaking, and no redness of the skin, tincture of iodine may be painted directly over the diseased part, without the employment of any lotion. The dressing is reapplied each day until all pain, tenderness, and creaking have disappeared, which generally occurs at the end of four or five days. After this a roller bandage alone is continued until the parts have regained their tone.

## RECENT PROGRESS IN DISEASES OF CHILDREN.

BY T. M. ROTCH, M. D.

### ICTERUS NEONATORUM.

In the *Lancet* for March 25, 1882, there is an abstract taken from *Virchow's Archiv*, which is interesting as showing the present state of our knowledge regarding that much vexed question, icterus of the newborn. The author says: "The mysterious jaundice which so often affects newly-born children has always given rise to much interest, and many hypotheses based for the most part on fancy rather than on fact. By some authorities its cause is referred to the liver, by others to the blood; modern theories render the former explanation the more probable, since the opinion that the elements of the bile are performed in the blood has been practically given up. Virchow believed that icterus neonatorum was merely a variety of the common catarrhal jaundice, and arose from duodenal catarrh, while Cohnheim has assumed that the bile formation of foetal life is small, and is so suddenly increased at birth, that the bile ducts are not at first competent to carry the secretion away; neither of these assumptions rests on evidence. Another group of theories ascribes the jaundice to the disturbance of the circulation in the liver which occurs at the change from intrauterine to separate life. Hewitt and Weber believe that the distended veins compress the bile ducts, while Frerichs has adopted an old theory of Morgagni, and suggests that the sudden diminution in the supply of blood to the organ leads to a passage of the secreted bile into the blood-vessels. The theory of Breschet, that the jaundice depends on changes in the coloring matter of the blood, and is thus hæmatogenic, has been recently revived by Epstein, and it rests on considerations which are, with one exception, presently to be mentioned, even more purely hypothetical, its chief support being the feeble argument that other causes have not yet been demonstrated. This lacuna in our knowledge has to some extent been filled up by the investigations of Birsch-Hirschfeld. This author says that it is difficult to avoid associating the jaundice in some way with disturbance of the hepatic circulation on the transfer of its chief blood supply from the umbilical vein, especially when regard is had to the conspicuous congestion and œdema of the liver, well described by Weber, which occurs in cases in which the circulation through the umbilical cord is interrupted