THE NERVOUS PHENOMENA ASSOCIATED WITH MOVABLE KIDNEY.*

WHARTON SINKLER, M.D.

PHILADELPHIA.

It is only within a comparatively recent period that the attention of the profession has been directed to the frequent occurrence of movable or floating kidney, and it is within a still more recent time that the importance of the symptoms arising from this condition has been appreciated. The frequency of movable kidney is a point on which there has been wide diversity of opinion. All authorities agree that movable kidney is much more common in women than in men, and it is also agreed that it most frequently occurs between the ages of 25 and 40 years, and is rarely found in girls before puberty. It is also most common in women who have been pregnant. Some writers state that this condition of the kidneys is found in 25 per cent. of women who are examined for pelvic, dyspeptic or other troubles, while others regard the condition as comparatively rare. Franks¹ insists on a distinction between floating kidney and movable kidney. The former, he says, is very rare and is a pathologic curiosity, while the latter is common. Floating kidney is a congenital condition and the organ is freely movable in the cavity of the abdomen, it is surrounded by peritoneum and is possessed of a mesonephron. Movable kidney is an acquired condition and the organ is mobile behind the peritoneum.

When looked for in the cadaver, the kidney is not often found displaced, and this is probably due to post-mortem conditions, the kidney having a tendency to settle into its normal position, and the fatty capsule surrounding the organ becomes solidified and helps to hold it there. Epstein states that movable kidney was found only five times in 3,658 postmortems, and Landau in an examination of hospital records from 1870 to 1879 found reports of only 4 cases out of 6,999. On the other hand, Lindner² asserts that in his experience, one out of every five women has a movable kidney, and Mathieu out of 306 women examined in hospitals, found movable kidney in 85, or 25 per cent.

There is no doubt that a kidney which is displaced to only a slight extent is overlooked, and in the detection of a movable kidney, much depends on the manner in which the examination is made. It is the experience of every one to have found at one examination that the kidney was so much out of place that its whole outline could be readily traced, while on the next occasion it may have been impossible to feel the organ at all. Lindner gives the following as his method of examination for displaced kidney: He stands at the right side of the recumbent patient, places his right hand against the anterior abdominal wall and then presses the left against the back of the lumbar region so as to push the kidney forward. The patient is then placed on her right side with the knees drawn up; by sharply shaking the body, the kidney, if movable, will fall forward. He says that frequent examinations are sometimes necessary to detect the abnormality.

Noble³ declares that an examination of a patient lying down is a most unreliable way for determining the presence of movable kidney, and he believes that this con-

dition is frequently overlooked if the examination is not made when the patient is standing. His method is as follows: "The patient's clothing should be loosened, all bands about the waist unfastened and the skirts supported by a nurse or assistant so that the patient will not be embarrassed with the fear that her clothing will fall off. She should then stand before a table or desk of convenient height, about thirty inches, with the examiner seated on her right. The patient then bends forward from the hips, and supports some of her weight by resting her hands on the table. She is directed to respire regularly, care being taken to relax herself thoroughly during the expiration. The examiner's left hand is placed against the lumbar region posteriorly and his right hand in a corresponding position in front of the kidney. By a conjoint manipulation, the region between the two hands can be carefully palpated and if present, the kidney is easily recognized." The points to be looked after are the shape and size of the kidney and the fact that it can be readily displaced upward beneath the margin of the ribs, and that it will return to its former location as soon as the examiner's hands no longer support it. When the kidney is compressed, as a general rule, the patient complains of tenderness or pain of a peculiar character, and often makes the statement that the pain causes her to feel faint and somewhat nauseated. In some cases the manipulation will be more successful in the knee-elbow position.

The causes of displaced kidney have been variously assigned to falls, pregnancies and tight lacing, but it is probable that these conditions are only indirectly causative, as there must be some predisposition to displacement in order to effect a marked change in the position of the organ. Probably the most common predisposing cause is the lack or loss of adipose tissue. It is undoubtedly true that movable kidney is usually seen in women who are thin or emaciated. Possibly one reason for its more frequent detection in thin women is that in them it is easy to palpate the whole abdomen, while in stout women the difficulties are great, but it is no doubt true that movable kidney does not occur so frequently in stout women as in thin.

The kidney has no proper ligaments, but is embedded in a thick cushion of fat which aids in keeping the kidney in place and there is also a large amount of connective tissue which binds it to the loin behind and to the abdominal viscera in front. Anything which causes absorption of the fat will necessarily allow greater mobility to the kidney. The right kidney is much more frequently displaced than the left, although occasionally it is found that both kidneys are displaced. Schutze found in 73 cases the right kidney displaced 65 times—the left 18 and in both 14 times. Noble says that he has never seen a case in which the left kidney was displaced independently of the right.

The symptoms of movable kidney are for the great part reflex in character, but there are also those which are local or due to mechanical action. The principal symptoms connected with displaced kidney are pain and dyspeptic and neurasthenic disorders. It is interesting to note that the symptoms are by no means in proportion to the degree of displacement of the organ. It frequently occurs that in cases where the displacement is only slight, the reflex symptoms are most marked. Noble has called attention to this and also to the fact that in this it is analogous to pelvic disorders. He thinks that the explanation is that in extreme displacement the

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1. Twentieth Century Practice of Medicine, vol. ix, p. 781.

2. Sajous' Annual, 1889, vol. 1. G., p. 21.

3. Gaillard's Med. Jour., 1895, vol. lxi, pp. 59, 65.

nerves become overstretched and the circulation has had time to adjust itself to the changed condition.

The degree of pain varies from a dull aching to acute lancinating pain. It is usually referred directly to the region of the kidney and is more or less constant. In many cases it is uncomfortable or painful for the patient to lie on the side opposite the displaced organ. If there should be a twist or kink of any kind in the ureter, this will give rise to intense pain and eventually to hydronephrosis. Should complete rotation of the kidney occur, not only is the ureter compressed, but the renal vessels and nerves are also involved. The result is agonizing pain, with collapse, nausea, cold sweats and scanty urination. In short, most of the symptoms of renal colic are present.

Neuralgic pains in different parts of the body are complained of. Irritable bladder is common and so also is pain in this organ, which begins in the kidney and passes down the ureter into the bladder. Dysmenorrhea is frequently associated with movable kidney, and there are also symptoms referred to the ovaries and bladder of a dragging character or weight, which are really due to a displaced kidney. There are frequent disturbances of the liver and gall bladder as a result of mechanical dragging by the kidney and symptoms closely resembling those of gallstones are not unusual in connection with movable kidney. Dyspeptic symptoms are almost constantly met with in cases of displaced kidney. They may vary in degree and kind from slight indigestion and flatulence to intense nausea and pain. In connection with gastric disturbances are found palpitation of the heart and other disturbances in the action of this organ.

Intestinal disorders are also common. In some cases there is marked mucous colitis with its distressing local and general symptoms. What are popularly called bilious attacks frequently occur in patients with movable kidney. In these attacks there are headache and vomiting of large quantities of bile stained mucus. The gastric symptoms have been attributed by one writer to the direction of the displaced kidney and the pressure of this organ on the stomach, but this is hardly a satisfactory solution of the case. It is more likely that the gastrointestinal symptoms are reflex rather than mechanical.

A recent writer, Dr. Sherman Thompson Brown,⁴ has reported two instructive cases of pancreatic diabetes, which he believes were due to misplaced right kidney. In both cases nephropexy was performed. Both patients made an uninterrupted recovery and from the time of the operation no sugar was present in the urine in either case. In the interesting article which this writer has presented, he goes fully into the anatomy of the pancreas, duodenum and kidney. He explains the intestinal and pancreatic disturbances in displaced kidney by the pulling upon the duodenum and the colon with the duodenum where it crosses the kidney, and the pressure of the misplaced organ. In his cases, he believes that the glycosuria was due to dragging on the pancreas by the kidney.

Edebohls⁵ believes that movable or displaced right kidney is directly responsible for almost every case of appendicitis. He, as is well known, is a strong advocate for operations to anchor the kidney. It would seem, therefore, that movable right kidney is held responsible for nearly all the ills to which flesh is heir.

The most common symptoms associated with movable kidney are disorders of the nervous system, such as

hysteria, neurasthenia and mental depression. It must be borne in mind, however, that at least 50 per cent. of the cases of movable kidney present no symptoms whatever, and that, therefore, we can not expect to find in every neurasthenic woman a displaced kidney. At the same time there is such marked causative relation between movable kidney and neurasthenia that it behooves us to examine every woman presenting neurasthenic or hysteria symptoms, for the position of the kidneys. It is not necessarily the case that there is severe pain complained of in connection with the nervous systems, for frequently it is found that a neurasthenic woman has not experienced any pain or discomfort in the region of the kidney, nor has she been aware of any malposition of the organ.

Probably the most constant nervous disorder in a patient with displaced kidney is neurasthenia. Such patients are thin and in addition to general neurasthenic symptoms, suffer from much gastric disorder. There are in some cases, attacks of severe epigastric pain with retching like the gastric crises of tabes and often there is gastric pain which comes with regularity one or two hours after eating and large quantities of gas are belched up simulating gastric ulcer. The usual remedies for indigestion and flatulence afford little or no relief. Some patients find that lying down and kneading the right side gives ease. Bloating from distention of the bowels with gas is a common symptom, and this is frequently accompanied with palpitation of the heart and pain in the precordia. These patients also have more or less pain in the region of the affected kidney, which is generally of a dull aching character, and is often attributed to intestinal disturbances. The patient sleeps badly and the sleep is broken and disturbed by dreams. Any form of exercise, even walking or driving, is liable to cause pain and aching in the right hypochondrium and considerable exhaustion. Patients with movable kidney are also extremely nervous and irritable, and are often in a condition which makes them not only uncomfortable to themselves, but a burden to their friends. In some cases, the various manifestations of hysteria may be presented. I recall one patient whose right kidney was so much displaced that it could be readily outlined in the region of the umbilicus, who had severe hysterical seizures in which she became unconscious and raved.

There are various reflex hysterical disturbances met with in movable kidney. Of course, there may be only an accidental association between these conditions, but from the fact that after an operation for fixation of the kidney these symptoms disappear, it is evident that there is more than a coincidence between the symptoms.

Hypochondriasis and mild mental disturbances like melancholia are sometimes associated with movable kidney, but these conditions occur only in cases of long standing.

These nervous phenomena rarely occur in men, but when they are met with in that sex they are very intense. The treatment of movable kidney is palliative or radical. In a certain proportion of cases, the application of abdominal belts with properly adjusted pads seems to afford relief, but in the majority of instances the use of any kind of apparatus is entirely unsatisfactory, as it is most difficult to get a belt which can be made to fit accurately. Many cases in which the amount of displacement is moderate in degree, are greatly benefited by the rest treatment, and even cases in which there is a considerable displacement of the organ are distinctly benefited by such a plan of treatment. Every case of dis-

4. Phila. Med. Jour., April 4, 1903, p. 594.

5. Amer. Jour. of Obstet., 1895, vol. xxx, p. 161.

placed kidney should have the benefit of systematic and intelligently directed rest treatment before resorting to operation. All the procedures connected with the rest treatment tend to benefit cases with movable kidney. As long as a patient is on her back the kidney remains in a normal position. By improving the general nutrition of the body, the weight is increased, and this will add to the deposit of fat in all the tissues and restore that which has been lost by absorption from the envelope of the kidney, and thus secure it in its proper condition.

In addition to these mechanical influences from rest treatment, the isolation, regimen and moral influences which are brought to bear on the patient, relieve the nervous and neurasthenic symptoms which are present, in almost every instance.

In cases in which there is true floating kidney or much displacement of the organ, and in which the rest treatment has been faithfully tried without benefit, operation should be resorted to. There are also cases in which, for various reasons, it may be undesirable to adopt rest treatment, and in these, nephrorrhaphy may be resorted to at once. The operation has been performed in various ways by different operators. The five principal methods are as follows:

1. The sutures may be passed through the fatty capsule alone.

2. They may be passed through the fibrous capsule of the kidney.

3. They may be passed through the substance of the kidney itself.

4. The capsule may be split and dissected off and this stitched to the lumbar muscles.

5. The substitution of gauze packing for sutures to hold the kidney in place until the formation of permanent adhesion of the kidney in its new position, the wound being left open to heal by granulation.

The object in all of these is to fix the kidney in the loin. The operation has now been performed a great number of times with marked success as to retaining the organ in position. The mortality is exceedingly small. In 134 cases collected by Keen,⁶ there were four deaths, giving a death rate of 2.98 per cent. The experience of most operators has been that the kidney remains in position after it has once been fixed by operation. Edebohl states that in 193 operations upon 186 patients, in none of the cases did he find the kidney misplaced on subsequent examination. Henry Morris states that in 98 operations for movable kidney, he has not reoperated on a single patient.

The ultimate results of nephrorrhaphy as regards the symptoms, depend to a considerable extent on the nature of the case. The pain, weight and dragging is almost invariably relieved by an operation. The immediate effect on disorders of the digestive system is not always satisfactory and it often is a considerable length of time after the operation before these symptoms are relieved. Flatulent dyspepsia and constipation often remain for a long time, and the same may be said of the nervous phenomena. Few cases are immediately relieved of neurasthenic and hysteric symptoms immediately after operation, and it is not reasonable to expect that such symptoms would disappear at once. As a rule, they have lasted for a long time, and the neurasthenic and hysteric condition has become established in the individual. We cannot, therefore, expect that these symptoms will be relieved without suitable treatment being pursued for a

reasonable length of time. It is, in operations for movable kidney, just as it is in operations for ovarian disease in patients who have become neurasthenic. The cause of the trouble may have been removed, but the disease which has been induced does not disappear without proper treatment.

I will only relate two cases to illustrate what has been dwelt on in the foregoing remarks.

CASE 1.—Mrs. A., aged 40, mother of four children, has for several years suffered from a number of symptoms of neurasthenia. She has had flatulent dyspepsia and suffered from constipation. She has been very nervous and has become unable to perform her duties at home. She has lost much flesh and is far below her normal weight. The right kidney was found to be markedly displaced, and could be readily outlined. There is apparently little local pain. She was treated systematically by the rest cure, and gained flesh and lost her neurasthenic symptoms. Fifteen years later she was seen, and stated that she remained in excellent health.

CASE 2.—Mrs. B., aged 25, has for several years suffered from severe attacks of bilious vomiting associated with headaches and pain in the right hypochondrium. She has been neurasthenic, irritable and emotional. She has constant dragging pain in the right side of the abdomen, most marked just below the margin of the ribs. She had frequent attacks of mucous enteritis. The right kidney was found to be movable and readily outlined. The patient was thin but not anemic. A course of rest treatment was followed by improvement in her general symptoms, but after a few months she had almost as much pain and suffered from as frequent attacks of bilious vomiting as before. In September, 1902, she was operated on by Dr. John B. Deaver and the kidney was fixed in position. She made a satisfactory recovery from the operation and all of her symptoms have gradually disappeared. She has gained flesh and has comparatively little trouble with her digestion, and while not entirely free from pain, has so much less that it gives her but little inconvenience. She has gained markedly in weight.

DISCUSSION.

DR. A. P. OEHLMACHER, Gallipolis, Ohio—Dr. Sinkler has referred to the difference between the figures of the pathologist and those of the clinician as to the frequency with which movable kidney is met. This discrepancy is, perhaps, partly due to the fact that it is not the routine custom to look for this anomaly in making an autopsy. The displacement is usually best made out with the body in the recumbent position, but if the autopsy is not made immediately after death, the fixation of the tissues tends to anchor the kidney, as well as the other intraperitoneal contents. If one will take the pains to grasp the kidney in its peritoneal covering, it will frequently be found that the range of movement varies greatly, and in this way one can sometimes detect a movable kidney. My attention has frequently been called to this in cases where the mesentery was unusually long and associated with a displaced stomach and colon, and on examining the kidney it would be found in its normal position, but it could be very readily drawn out and sometimes displaced for a considerable distance. I was rather surprised that Dr. Sinkler has laid no stress on the association of movable kidney with movability of other abdominal organs, that is, to a splanchnoptosis. This association is so common that I am sure it deserves some consideration. The digestive symptoms to which he referred are frequently the result of an associated gastropoptosis, and are not referable to the kidney condition proper. In a like way the intestinal symptoms are often referable to displacement of the colon.

DR. R. C. MOORE, Omaha—The number of cases of movable kidney that we come across in general practice is astonishing, and it has become my custom when I am called to see a patient who has any symptoms pointing to the abdomen, to invariably look for floating kidney. The general symptoms, as Dr. Sinkler has described them, do not point to any disorder of the pelvic organs, but more especially to the gastro-intestinal tract. The author also referred to the connection of appendicitis with this

6. Trans. Amer. Surg. Assn., 1890.

trouble. This form of appendicitis comes under the head of colic of the appendix, and an operation on the movable kidney will not cure the trouble in the appendix. After the kidney is anchored, it becomes necessary to perform a second operation on the appendix. These cases of appendicitis are non-suppurative in character at the onset, but there is a constant danger that infection may take place. In examining for movable kidney, the upright position allows it to fall forward, but it is often very difficult to map it out on account of the rigidity of the abdominal walls. My custom is to have the patient sit on a chair and bend forward so that the abdominal muscles become relaxed. If the kidney is displaced, it can usually be made out by examining in this position.

DR. J. L. MILLER, Chicago—In quite a large percentage of cases of movable kidney of the second or third degree we also find gastropotosis. The latter condition does not always give rise to gastric symptoms. Many of these patients have shown marked improvement on the application of a suitable bandage; in others, an operation was necessary. Before we can say that these patients are cured, it is necessary to keep them under observation for a long time, as relapses are not uncommon. The neurasthenic symptoms will be apt to return even if the kidney has been restored to its proper position. The beneficial results of the treatment, as far as the nervous symptoms are concerned, are, I believe, largely due to suggestion.

DR. A. R. ELLIOTT, Chicago—I have been astonished at the frequency with which I have found gastropotosis and enteropotosis associated with movable kidney. These patients sometimes fall into the hands of the gynecologist, who may, perhaps, find and repair an old rupture of the perineum without relieving any of the patient's abdominal symptoms, which are the result of an abdominal ptosis. A satisfactory abdominal support and measures directed toward a proper regulation of the digestive functions with promotion of the general muscular tone, give the best results in these cases.

DR. A. C. CROFTAN, Chicago—I think it is difficult to determine whether floating kidney is ever the cause of neurasthenic symptoms. I have never seen such a patient cured by the replacement of the kidney alone. There is usually in these cases general abdominal ptosis, and often associated with this condition is a loose floating twelfth rib. Whether the neurasthenia and the relaxation of all the abdominal supports are both effects of the same cause, or whether the latter determines the former, is often difficult to say. Theoretically, one might imagine that splanchnoptosis, with the resulting derangements of function, might cause certain vague general symptoms that can be conveniently included under the gaping category of neurasthenia; sympathetic irritation may also possibly be incriminated. The anchoring of a loose kidney or uterus, however, can hardly be expected to cure the patient. I certainly never hesitate to send my neurasthenics to the abdominal surgeon even if the kidneys were loose.

DR. F. SAVARY PEARCE, Philadelphia—I believe that in a great many cases of floating kidney, associated with general splanchnoptosis, the whole process is the result of depressed vitality in a neuropathic subject. The treatment should be directed first along neurologic lines—to repair the nervous system, and when the patient's general condition is improved, it is certainly advisable to put the organs back into their proper places. As to the gastro-intestinal symptoms being necessarily due to an associated gastropotosis or enteropotosis, I am not willing to subscribe to that theory, because I have seen two cases of undoubted floating kidney with marked gastro-intestinal symptoms in which there was no displacement of the stomach or bowels. The gastric symptoms, under such circumstances, are probably at least partially of reflex origin, or they may be the result of a nervous dyspepsia. The ideal treatment is to remedy the nervous condition. I have never found much benefit from the use of a belt.

The ethics of the American Medical Association do not interfere with any physician in the exercise of good business sense, and they are seldom criticised except by those who wish to dodge.—*Alkaloidal Clinic.*

A CONSIDERATION OF THE NEUROSES OF STATUS LYMPHATICUS.*

A. P. OHLMACHER, M.D.

GALLIPOLIS, OHIO.

Status lymphaticus, otherwise known as the lymphatic constitution, lymphatic diathesis, lymphatism, etc., is a so-called constitutional disorder, characterized by a persistence or hyperplasia of the thymus, general lymphadenoid hyperplasia, frequently associated with cardiac and arterial hypoplasia, and evidences of rachitis. The principal morbid anatomic features of status lymphaticus are a persistent or hypertrophic thymus, general or regional lymphadenoid hyperplasia including the lymphoid elements of the spleen, hypoplasia of the arteries and heart, very often with the osseous changes of rachitis. Occasional or accessory features are a thick skin, edema of the skin, lungs or brain, hypertrophic thyroid, hypertrophy of the brain, hypoplasia of the sexual organs, and lymphocytosis. A pronounced general active hyperemia is usually discovered in lymphatic individuals dying suddenly.

That there is a close morbid anatomic association between status lymphaticus and rickets has been abundantly proven, particularly in the case of lymphatic infants. Still we are not at present in a position to say that all cases of status lymphaticus are associated anatomically with the rachitic dyscrasia, nor do all cases of rickets exhibit the evidences of lymphatism, though its coincidence with enlarged spleen and hyperplasia of the mesenteric nodes is well known. In infants dying in the lymphatic state a mild grade of craniotabes, the rosary, curvature of the long bones or spine, and enlarged epiphyses have been manifested as rachitic osseous changes; and in older children or adults several instances of rachitic spinal curvature, pigeon breast, narrow pelvis, and curvature of long bones have been found.

It will not be germane to our present purpose to enter into details concerning the morbid anatomy of the lymphatic state, and your attention is therefore invited to several peculiar clinical manifestations of status lymphaticus which I have ventured to class as its neuroses. The first of these is sudden death, which, because of its morbid anatomic association, shall be designated thymic or lymphatic sudden death. An abrupt lethal ending in victims of lymphatism is not an uncommon phenomenon, both in infants and young adults. It occurs under various circumstances, as by a sinking spell with or without convulsions in the presence of spectators, during sleep ("found dead in bed"), during a bath or while swimming, in surgical narcosis, or during the performance of some minor operation as the removal of the tonsils or adenoids, extraction of teeth, injection of curative sera, or following certain hydrotherapeutic measures. This phase of our subject is discussed in detail by such writers as Grawitz, Paltauf, Pott, Nordmann, Kundrat, Escherich, Gallatti, Ewing, Blake and others.

That lymphatic sudden death should be looked on as an abruptly fatal neurosis seems entirely permissible, and the term "Nervenschlag," used by the Germans to describe its mode of onset, is equally suggestive. Moreover, in cases that have come under accurate observation, convulsive phenomena have been described as ushering in the fatal event, and some of the accounts recall to

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