What are the chief signs and symptoms which, if detected early, reduce the mortality and morbidity? They are:

- (1) A temperature of 99°, and a pulse rate of 90 ;
- (2) Uterine colic ; and
- (3) Abnormal lochia.

With regard to the first, valuable time may be lost if the textbook standard of morbidity—namely, a temperature of 100.4°—is awaited. It is our practice to institute drainage by glycerin as soon as ever the temperature rises to 99°, or the pulse rate to 90.

Given an empty uterus, devoid of inflammation, and in good position, the patient will be free from pain. Should pain be present, a cause for it can always be found if sought for ; almost invariably that cause will be interference with free drainage. Pain is the cardinal symptom, and tenderness is the cardinal sign of an obstructed viscus, yet many medical practitioners still labour under the delusion that it is natural for a woman to suffer from after-pains for the first few days of the puerperium. These after-pains are really symptoms of a slight interference with the free escape of fluids from the uterus, and, as such, are a danger signal. If not relieved within twelve hours, active steps should be taken to encourage free drainage ; otherwise, the case may end in disaster.

The presence of offensive lochia is another indication for early treatment, especially since many of these cases do not in the early days show pyrexia. Profuse lochial discharge means, as a rule, inflammation of the uterine wall, and accordingly demands early treatment. As a general rule, it may be laid down that the red lochia should cease in a healthy woman about the sixth or seventh day, and those cases which do not conform to this rule should receive hospital treatment until all signs of inflammation have disappeared.

Early and efficient treatment along the lines that I have indicated would undoubtedly save many lives, and would lessen the number of those who frequent gynaecological out-patient clinics. It would obviate many useless curettings, and hysterectomy would be less frequent.

To illustrate the type of case in which glycerin treatment has been found valuable, I append the following figures taken from a recent six-month period. They relate to a total of 208 deliveries occurring in this hospital.

	Number of Cases	Average Number of Treatments per Patient
1. Cervical erosion...	107	112
2. Secondary albuminuria ...	10	46
3. Bacillus coli infection ..	60	75
4. Ante-partum haemorrhage ...	6	36
5. Placenta praevia ...	3	10
6. Internal manipulation ...	3	6
7. Forceps deliveries ...	10	8
8. Retained placenta ...	6	36
9. Post-partum haemorrhage ...	8	14
10. Retained membrane ...	12	18
11. Uterine colic ...	31	32
12. "Three nines" ...	45	24
13. Offensive lochia ...	20	32
14. Secondary haemorrhage ...	20	18
15. Puerperal thrombo-phlebitis ...	8	64

* Increased temperature (99° or over), increased pulse rate (90 or over).

The majority of the 208 patients suffered from more than one of the above pathological conditions. The amount of glycerin used in each case varied from a few

cubic centimetres to 200 c.cm., injected once or three times daily either into the uterine cavity or cervical canal.

A recent list from the gynaecological wards over a three-month period showed that 33 patients were discharged with healed cervical erosions, the average number of glycerin treatments being 23, and the average number of days in hospital being 19.

I wish to thank Sir Almroth Wright, Dr. Leonard Colebrook, and Professor Robert Donaldson for their great help in the study of this disease, also Drs. Harold Carter, Joyce E. M. White, and Margaret E. Anderson, for assisting in the treatment.

SOME COMMON COMPLAINTS AMENABLE TO SPINAL TREATMENT

BY

THOMAS MARLIN, M.D., D.P.H., D.M.R.E.

MEDICAL OFFICER IN CHARGE OF THE MASSAGE, LIGHT, AND ELECTROTHERAPEUTIC DEPARTMENTS, UNIVERSITY COLLEGE HOSPITAL AND HAMPSTEAD GENERAL HOSPITAL, LONDON

Any attempt to explain the benefits from spinal treatment must be highly speculative. There are many easy but incorrect explanations. We must put aside any claim that the results are due either to bone-setting or to the breaking down of adhesions. The force used in manipulation is not sufficient to break down adhesions, and there is not the resultant pain and swelling which we would expect. There are various reasons why improvements are not due to bone-setting, for here is claimed the replacement of a luxated or dislocated vertebra which was presumably impinging on a spinal nerve as it emerged through the intervertebral foramen, whereas it is well known that the spinal nerve does not fill up the whole lumen of the intervertebral foramen, but only a small proportion of it ; thus any slight mis-alignment of one vertebra is not likely to cause direct pressure on the corresponding nerve. Moreover, it ought to be possible by means of *x* rays to demonstrate not only the malposition of a vertebra, but that condition rectified after the manipulation. We have not been able to do so, and our own opinion is that there is no displacement ; but there may be a fixation or limitation of movement due to some static cause, and any sound heard during a spinal manipulation, as usually carried out, is due merely to a separation of the articular surfaces, and not to the replacement of anything that has been out of place. Indeed, in Case 1 (under Dr. McNee) *x*-ray examination was made before and immediately after the manipulation. The second series of photographs showed that the tilting had apparently been overcome. At one or two subsequent examinations the good position seemed to be maintained, but the radiologist, by making a slight change in the position of the patient, was able to reproduce in a photograph the exact tilting of the fourth lumbar vertebra which was seen at the first examination.

* Luck may be a factor—the luck of some new form of treatment producing a favourable impression on the patient who returns at subsequent sittings prepared for better and better results. This factor, however, is not unknown in other methods of treatment, where a psychological stimulus is used to influence physiological processes. But with the spinal treatment we are able to break into the abnormal chain of circumstances, using a physical stimulus at a definite part. When we have on the one hand some ailment or disability, and on the other hand contracted tissue giving rise to pain on pressure round particular parts of the spine, whether as a reflex from the former or whether the former is a reflex from the latter, if we are able to break in on that reflex arc, perhaps we can upset the whole vicious cycle

and give relief. The patient's statement as to whether he is relieved cannot be proved or disproved. Nevertheless, we can watch the state of the tensioned tissues in the back. As these become soft and loose they become less tender to touch, with possibly an abatement of the concomitant symptoms. Thus, in Case VII, with dyspepsia, from careful palpation of the back, where the only objective symptoms were available, we could feel that the tissue tension was much less on the patient's second and third visits, and we assumed that her dyspeptic symptoms were easier, this being confirmed by her own statement.

The essential thing seems to be to relax the tissue tension in the back. We have done it in cases similar to the above by diathermy alone and by massage alone, with the same results. The virtue of the spinal manipulation is that this relaxation is more quickly obtained. Whether ultimately it may be shown that the effects are brought about through some influence on the sympathetic nervous system is merely a suggestion. All we prefer to state at present is that we can sometimes influence certain complaints by restoring to normal some correlated tissue tension or want of mobility at certain levels of the spine.

Some Common Ailments amenable to Spinal Treatment

It can readily be understood how certain painful conditions may be affected by spinal treatment. Thus in coccyalgia many patients trace the symptoms back to an accident or fall on the base of the spine, and on examination the tip of the coccyx may be found bent forward. A backward pull on the lower segment of the coccyx will often ease the condition, and I have known a patient completely cured at a single sitting after many months of misery and discomfort. Sciatica and lumbago are often alleviated by manipulation of the lumbar and sacro-iliac articulations. It is possible that on occasions a sacro-iliac condition may cause a referred pain in the knee simulating internal derangement of the knee-joint. One patient, a nurse, had practically completed arrangements to enter a nursing home for removal of the internal semilunar cartilage, when her matron asked my advice. A sacro-iliac condition was diagnosed, and after a suitable manipulation the knee symptoms disappeared, and have not reappeared after a lapse of ten years. That, however, is the only case which has ended so satisfactorily at my hands.

Passing further up, we note briefly how the stiff back following sprains or strains may be benefited by a general loosening-up of the whole spine, a procedure which is coming to be more and more practised by orthopaedic surgeons. Intercostal neuralgia may be relieved by freeing up the appropriate vertebrae and ribs; a stiff neck may call for treatment to the cervical region, and headaches associated with occipito-atlantal conditions very often clear up in a surprising manner after the joint condition has had proper attention.

Then we come to cases where the connexion between the spine and the complaint is not so apparent.

CASE I

Miss A., aged 19, saw Dr. J. W. McNee at University College Hospital for pain which warranted an x-ray examination of the urinary tract. No calculus was discovered, but the radiologist reported from an examination of the films that there was tilting of the fourth lumbar vertebra to the left side, and Dr. McNee asked me to try the effect of spinal manipulation. On examination, the tilting of the fourth lumbar vertebra could be felt, and there was distinct loss of motion between the fourth and fifth lumbar vertebrae. A suitable manipulation was given, and two days later the patient said she was already easier. Some gentle treatment was given that day, and after a week she said that not only was her backache better, but that the pain in her

groin had gone. She resumed work, but returned on three occasions for a little further treatment. Within six weeks from the commencement of treatment she was working from 9.30 a.m. till 9 p.m. without any pain; the motility of the fourth and fifth lumbar vertebrae was now well maintained, and during her last period her menstrual pains, generally severe, had been very much less in intensity.

Gynaecologists are faced daily with a very perplexing problem—the woman with pain in her back, but who at the same time has some slight deformity or displacement of the uterus. All other measures having failed, she has been sent up to have an operation on the uterus, and, if after that the backache persists, she will be labelled “neurotic” for the rest of her life. The practitioner has asked for help, and the problem is to know what to do. Some cases may benefit from an operation, but the majority of gynaecologists admit that many of them are not gynaecological cases at all. A special plea is put forward that such cases might have a trial of spinal treatment before operation is finally decided upon.

CASE II

Mrs. C., aged 38, under Professor F. J. Browne, Obstetric Unit, University College Hospital Medical School, had a history of backache for several years. There was some backward displacement of the uterus, and she had been sent in to have this remedied in the hope that the backache would be cured. Examination of the back showed a general stiffness of the lumbar region, and after a few treatments the backache disappeared, and she was discharged as cured.

It is quite possible, though it is merely a suggestion, that spinal treatment may have some effect on the ligaments of a mal-placed uterus, or on its vascular supply in a case of enlargement, because from the following we know that profound impressions can be made on the pelvic organs.

CASE III

Mrs. W. saw me several times during the menopause on account of severe pains and floodings. Treatment was directed to the lumbar region, and each time before she left the room she said that both the pain and the haemorrhage were much less. In fact, the haemorrhage very often stopped.

CASE IV

This patient was a single lady, aged 30, who had never menstruated regularly, her last period, which was only slight, having occurred two years previously. Three treatments were given to the lumbar region, after which she wrote: “I had a successful period of five days since my last visit.”

In metrorrhagia the results are most encouraging.

CASE V

Miss M. was sent up from the country for treatment for another condition, but after she started coming to me her doctor discovered that she suffered violent pains during her periods; she had suffered from the commencement of menstruation, but the pains lately were tending to become worse. It was suggested that on her next visit I might arrange at the same time to have the opinion of a gynaecologist, but after further consultation we agreed to try spinal manipulation, provided examination indicated that line of treatment. Accordingly, at her next visit an endeavour was made to mobilize the whole lumbar spine, there being a general rigidity in that area. Within ten days she wrote: “I know you will be glad to hear that I had a very good time last week, practically no pain at all in the back or anywhere else. I have never felt quite so well before at those times; it seems too good to be true. . . .”

CASE VI

Miss B., aged 17, was sent by her mistress. Her periods commenced when she was 14, occurred every fortnight or three weeks, and lasted seven days. She always had pain in front of the stomach on the first day of her periods. This was usually accompanied by sickness, and she had to lie down

during that day. Examination showed limitation of movement between the third and fourth lumbar vertebrae. She had two treatments at a week's interval, and when seen on the third occasion had just got over a period which, she said, was the best time she had had in her life. After two more treatments, carrying her over the next period, her mistress wrote: "I am happy to have to report about my maid that her period arrived before she got home on Wednesday. She was able to keep about that evening, and was only sick twice the next day, kept about, did her work, and ate her food apparently quite normally . . . altogether since being treated by you she has been much less moody, and much more cheerful than she has been since her periods first started—more like the happy child I first knew when she was still at school."

While dealing with the lumbar region it may be mentioned that manipulation of these vertebrae often has a very marked influence on constipation, and it is not unusual to find that people who have not had a motion for years without the use of medicine are able to return to normal habits.

Certain disorders of the alimentary tract seem to be related to the dorsal spine. For instance, there is the person who complains in a vague way of indigestion. He has pain or discomfort after food, not at any particular time after food, but he has discovered that he must be careful what he eats. He may probably say that he has no appetite or feels sick. Faddy about his food, he will not take the general run of food provided for the rest of the family. Very often he goes on a "diet," either prescribed by his medical adviser or made up by himself with the help of books and well-meaning friends. All this only goes to prove that the patient is miserable and unhappy; it does not necessarily prove that he is a neurotic subject. In such cases one often finds tenderness on either side of the spine in the mid-dorsal area, but more generally on the right side, and the corresponding vertebrae show a want of motility. Freeing up of these vertebrae may materially alter the patient's outlook and get rid of his discomfort.

CASE VII

Mrs. A., aged 40, complained that for the last two years life had been a misery through sickness, loss of energy, and sleeplessness. She could not take ordinary food; in fact, she had been "put on a diet" by a physician six months previously, so she had the trouble of preparing separate food for herself and her husband. Treatment was given to overcome certain tissue tension which was discovered in the mid-dorsal region. After the second treatment she commenced to take ordinary food, and very soon resumed full ordinary diet, but said she had to avoid mutton fat. She soon gained seven pounds, slept soundly, lost her miserable feelings, and took altogether a brighter outlook on life. Instances of this nature are frequently happening.

Herpes zoster is mentioned in connexion with the dorsal region, because the only two cases I have treated were related one to the upper and the other to the mid-dorsal vertebrae. In both cases the patients were women, and the rash fully developed. They each had one treatment, and the subsequent events were similar. In each case the pain went within a few hours, and although the irritation remained they were grateful to be free from pain.

Reference ought to be made also to asthma, but, although spinal treatment often does produce a profound influence, there are many more cases where it has no effect, or at any rate produces no lasting beneficial effect.

CASE VIII

Mr. S., aged 49, had been chief officer in a large liner, but was forced to give up his job on account of asthma. This was partly owing to the fact that the asthma was worse at sea, and he found that he was easier in London than

elsewhere. Extreme heat or cold affected him, and he was worse at night. He had dysentery twelve years ago, which lasted five years, and then the asthma became unbearable. Nine years ago he had rheumatic fever, being in bed for three months, but had no asthma while the fever persisted. He had also noticed that during bouts of malaria he had no asthma. As he took aspirin for malaria he discovered that this drug helped his asthma. It is worth noting that up to the age of 21 he was doing hard manual work as a sailor. Only after that, when he assumed the more sedentary habits of a ship's officer, did the asthma show itself. He had his first treatment on April 30th, 1930, and this was intended to loosen up the whole of his dorsal spine and free the ribs. At the same time he was encouraged to do hard work in his garden. That night he was more comfortable than he had been for a very long time. Up to the middle of May he had altogether six treatments. On October 3rd he wrote: "In reply to your inquiries I am glad to be able to say that I am very much improved in health. I have not had a single bad spasm since I had your treatment, although I have had some slight attacks, which yielded readily to the simple remedy of aspirin and inhalations of burning powder. . . ." In March, 1931, he consulted me about something else, but said that his asthma was still well under control.

TWO CASES OF SARCOMA FOLLOWING KNOWN TRAUMA

BY

DAVID H. HALER, M.B., B.S. LOND.

ASSISTANT PATHOLOGIST, PRINCE OF WALES'S HOSPITAL

It is stated in Ewing's *Neoplastic Diseases* that "trauma often seems to be the sole tangible factor in originating many tumours. By trauma is here understood a single or repeated more or less contusing, crushing, or lacerating injury." Below are recorded two cases of malignant tumour formation in association with two different types of known trauma—indirect and direct. In both cases the growth proved to be sarcomatous.

The first case presents several points of considerable interest, because the patient was under continuous observation from the time of one single definite injury to the time of amputation of the affected limb. That this observation was complete may be seen from the fact that, during this period, not only was the joint x-rayed twice, but it was also opened and explored, and the one damaged structure therein removed. The type of growth recorded is a comparatively unusual one.

CASE I

Synovial Sarcoma following Indirect Trauma

A single woman, aged 41, jumped off a chair on March 23rd, 1930, and experienced for the first time an intense pain on the medial aspect of her right knee. The joint became locked in a semi-flexed position; rapid swelling of the joint ensued, and the condition was diagnosed as dislocation of the medial meniscus. This was treated by reduction and splinting. At this time the swelling was excessive, and in spite of treatment did not subside during the subsequent seven months. As the joint continued to be swollen and painful, the patient was admitted to hospital, where, in view of the extensive synovitis present, extension was applied for ten days, after which the joint was opened and explored. All the joint structures were found to be normal, with the exception of the medial meniscus, which was ruptured horizontally, and was consequently removed. On examination it showed no pathological macroscopical change.

In December the patient was discharged with the note, "Knee still slightly swollen."

In January, 1931, she was readmitted with increased swelling of knee. The joint was grossly swollen, but there was no evidence of intra-articular free fluid, and the anterior patellar surface was easily palpable. A bivalved plaster was applied and the patient confined to bed. Large doses of potassium iodide had no effect on the local condition; the