prove that the mind has been restored. Note carefully, therefore, the disappearance of excitement or confusion or evidence of delusion, and the return of natural feelings and ideas. Having these data you are fortified if called into court.

Though wills are usually made at a time when death seems remote, it frequently happens, as a result of sudden illness or accident, that a will is not made till death seems at hand. At such a time the presence of the doctor and the confidence reposed in him lead naturally to the request that he sign as one of the subscribing witnesses. And often the doctor signs without hesitation, just as he would witness a man's signature to any document. I was surprised to learn that courts have ruled that a doctor signing a will as a subscribing witness virtually registers his professional opinion that the man was of sound mind, and that judges have held that greater weight should be attached to the opinion of the attending physician than to the opinion of experts called into the case in court, because "his opinion is founded upon personal observation of facts and circumstances which carry their own inference." The statement by the doctor that he did not investigate the mental condition places him in an embarrassing position if mental incapacity is shown by evidence of others. And if he signed when aware that the patient was not in possession of his faculties, a learned judge has said "it is very much as if he had subscribed to a will that he knew was a forgery."

If asked to sanction the execution of a will, or to sign as a witness to it, the doctor may therefore properly decline, if he has any doubt about the patient's capacity, unless opportunity is afforded for a satisfactory examination of the patient and of the will itself. If such examination is refused, it is clear from the views just quoted that he would better be out of the case when the will is presented for probate. If his refusal seems likely to be misunderstood, the doctor should explain the delicacy of his position, on account of the weight attached to his testimony by the judges. Moreover, it seems probable that the testator would assent to an examination, if the idea were suggested to him that only in this way could he secure the firm support of the doctor's testimony, and thus strengthen very much the probability of having the will sustained in case of any contest.

A STUDY OF FOURTEEN HIP ABSCESES.¹

BY FRANK E. PECKHAM, M.D., PROVIDENCE, R. I.

I WISH to report a number of hip abscesses, which shall conform to a certain type as nearly as possible, so that a description of one may suffice for all.

These abscesses usually form about the outer or anterior surface of the thigh, resulting directly from the tubercular process. Upon being opened it may be possible in a small number to go directly to necrosed bone, either about the neck of the femur or at some contiguous point upon the acetabulum. In another class the pus sac is circumscribed and no denuded bone is found, although the mouth of a very small sinus may or may not be discovered. It is this latter class of abscesses with which the paper deals. The treatment in each case has been much the same, that is, opening by an incision the full length of the abscess

cavity, thoroughly curetting, closing without drainage, the application of a (not too bulky) surgical dressing and a compression bandage. The patient has been kept in bed on a Bradford frame with extension until absolutely certain that healing was solid and the abscess cavity obliterated or until it was demonstrated that such a result was impossible.

CASE I. J. O'B., a boy of four years of age. A right hip disease had existed for one year when an abscess developed on outer surface of thigh. This was opened during the winter of 1891-1892, curetted and closed. At the end of two weeks there was primary union, with complete obliteration of cavity and patient was gotten up on splint. The splint was omitted against advice about the middle of the third year of the disease and some flexion resulted. Everything went all right until about the middle of the fourth year, when another abscess developed, which the mother refused to have operated. This opened spontaneously and there still exists a discharging sinus. There is complete ankylosis of joint and 25° or 30° permanent flexion.

CASE II. W. W., a boy of seven years of age. A right hip disease had existed for several years and an abscess had been opened before coming under my care. April 28, 1897, there was a circumscribed abscess of several weeks' duration and the disease had continued for about five years. The abscess was, on above date, curetted, closed without drainage, and a compression bandage applied. The patient was in bed six weeks, when, everything being firm and solid, he was gotten up on a splint and high sole and sent home into the country (July 2, 1897).

In the early spring of 1898, being in apparently perfect condition, and weight having been allowed on the foot for four or five months, the splint was entirely omitted, it being about the sixth year of the disease.

A few months later, in the summer of 1898, the patient returned to the hospital with an abscess which opened spontaneously and exploration revealed extensive disease in femur and acetabulum. This was thoroughly curetted and boy is now home again wearing the usual apparatus. There is a discharging sinus, but patient is in excellent condition.

CASE III. A. R. C., a girl of seven years of age. Duration of left hip disease about two years, and an abscess had been present for several weeks. Operation December 20, 1894. This was the most extensive abscess of the series as regards the area involved, and the incision extended from the crest of the ilium nearly to the knee-joint. This enormous area was thoroughly curetted and it was possible here to feel the mouth of a very small sinus, which was supposed to communicate with the focus of disease. The usual course was pursued, of complete closure without drainage, a moderate surgical dressing with compression bandage. This bandage was readjusted from time to time to keep up the compression, but the dressing was not disturbed for two weeks, when the stitches were removed, and the very next day the patient was up with splint applied. There never has been any return of the abscess. The treatment was discontinued one year later and the patient to-day is in perfect health, with about one and three-quarters inches shortening.

CASE IV. E. H., a boy of five years of age, came under observation in 1895. He had double hip dis-

¹ Read before the Providence Clinical Club, May 24, 1899.

ease, and in October, 1895, an abscess developed about the right hip. This was opened October 30th and an abscess on the left hip was opened December 4, 1895. These both united, with obliteration of abscess cavities.

October 26, 1896, about eleven months after last operation, a small sinus began to discharge from the right hip. This continued for three or four months, then closed, and has remained closed ever since.

June 1, 1897, about one and one-half years after operation, a small sinus appeared on left hip, and remained open about three or four months, when it closed permanently. There is at present complete ankylosis of both hips and permanent flexion of about 40°. Physical condition excellent.

I would say that the treatment of this case was unsatisfactory, as a portion of the time he was under the care of an irregular practitioner who treated by the "laying on of hands" over the hips outside of the trousers. This may account for the opening of the sinuses.

CASE V. J. R., a boy of three years. An abscess developed in this case in the second year of a right hip disease. This was opened and curetted on November 10, 1895. The cavity was a large one, nearly en-

pression bandage applied. Patient was in bed a little over three months on account of some irritation about the wound, but at that time (June 1, 1898) everything was solid, there was no refilling, and there has been none since. Patient still under treatment.

CASE VIII. A. M., a girl of four years of age. Duration of a right hip disease six months. Abscess operated March 9, 1898, and four ounces of pus evacuated. Here a slight sinus remained until February 16, 1899 (nearly one year), when it finally closed permanently. Patient still under treatment.

CASE IX. A. L., a boy of eight years of age. A left hip disease of two years, seven months' duration. Abscess operated on April 1, 1893. There were two sacs, and two incisions were necessary to thoroughly reach both of them, one on the outer aspect of the thigh and the other on the anterior surface. Several ounces of pus were evacuated, the wound closed without drainage, and a compression bandage applied. There was a small stitch abscess after the operation, which was curetted, and the patient left the hospital August 8, 1898, in excellent condition. Patient still under treatment and no refilling of abscess.

CASE X. W. C., a boy of ten years of age. Duration of left hip disease at time of operation two

		Male.	Female.	Hip.		Duration of hip disease at time of abscess.	Time in bed.	Second abscess.	Sinus developed.	Duration of sinus.	Non-closure with immediate sinus.	Dead.
				Right.	Left.							
1	J. O'B.	1		1		1 yr.	2 wks.	3½ yrs. later.				
2	W. W.	1				5 yrs.	6 wks.	1 yr. later.				
3	A. R. C.		1	1		2 yrs.	2 wks.	None.				
4	E. H.	1		1		mos. ?	?	None.	11 mos. later.	3-4 mos.		
5	E. H.	1		1		mos. ?	?	None.	1½ yrs. later.	3-4 mos.		
6	J. R.	1		1		2 yrs.	?	3 yrs. later.				
7	E. P.		1		1	6 mos.	?	None.				
8	L. M.		1		1	1 yr.	3 mos.	None.				
9	A. M.		1		1	6 mos.	?				Sinus remained open for 1 yr.	5 mos. after operation.
10	A. L.	1			1	2 yrs., 7 mos.	4 mos.	None.				
11	W. C.	1				2 yrs.	?	1 yr. later.	1 mo.	6 mos.		
12	L. P.		1	1		4 mos.	?				Still remains open.	
13	J. McM.	1			1	2 yrs.	1 mo.	None.				
14	T. G.	1			1	2 yrs., 3 mos.	1 mo.	None.				

circling the femur. It was closed as usual, but a small sinus at the lower angle of the wound discharged for about a week, when it closed permanently. This must have been entirely superficial to have subsided in so short a time. This boy was under no control at home, but did fairly well on his splint until December, 1898, just three years later, when another abscess developed. This was opened but the wound became infected in some way and drainage became imperative.

CASE VI. E. P., a girl of eight years of age. In 1897 this patient was convalescing from a right hip disease, when the left hip became involved, and in December, after the disease had been present about six months, an abscess developed. This was operated December 22, 1897. Healing with complete obliteration of the cavity was obtained, and patient was discharged February 14, 1898. About five months after operation patient died with tubercular meningitis. I saw the girl the day before death. The hip was in good condition, and there was no refilling of the abscess.

CASE VII. L. M., a girl of four years of age. Duration of left hip disease about one year, when abscess developed.

Operation, February 23, 1898. About three ounces of pus evacuated. Wound closed as usual, with com-

pression bandage applied. Patient was in bed a little over three months on account of some irritation about the wound, but at that time (June 1, 1898) everything was solid, there was no refilling, and there has been none since. Patient still under treatment.

CASE XI. L. P., a girl of four years of age. Duration of right hip disease four months. Abscess operated October 1, 1898. The usual operation, without drainage. This did not heal and child has emaciated and developed tuberculosis in both ankles and is having a serious time of it. Still under treatment on a Bradford frame with extension.

CASE XII. J. McM., a boy of seven or eight years, with a left hip disease of two years' duration. This abscess had been slowly filling for two months or more and the mother refused operation until an enormous tumor (size of a child's head), had formed on the anterior surface of the thigh. The skin did not redden and there was no tendency towards a spontaneous opening, notwithstanding the great amount of distention. This was opened May 24, 1898, and an elliptical piece of skin was removed en-

tire so that when it collapsed the edges of the wound would just come in apposition. More than a quart of pus was evacuated. This boy remained in bed just one month, when he was gotten up on a hip splint and there never has been any return of the abscess, now over a year after operation.

CASE XIII. T. G., a boy of six years of age. Duration of right hip disease two years and three months. An abscess had been slowly developing for eight or nine weeks. The usual operation was done February 23, 1899. Patient was in bed one month, at the expiration of which he was discharged with the abscess cavity completely obliterated. This case was seen May 20th, when it was in excellent condition, with no sign of refilling.

In order to obtain the results here reported it has been necessary to attend to certain details which will be particularly mentioned. In the first place, we are told that a certain number of abscesses would be absorbed if let alone. With the exception of two or three, all of these abscesses were let alone, with the absorption idea in mind, but they all progressed steadily and the skin began to show signs of spontaneous rupture before operation was decided upon. The one notable exception (Case XII) has already been mentioned.

Sufficient time must have elapsed for the formation of pus to have ceased. If an abscess is closed after operation and pus continues to form, it must collect somewhere and the inevitable result will be a refilling of the cavity, or the formation of a sinus through which it may be discharged; therefore it would seem to have been established clinically in the majority of these cases that the period of pus formation is limited, and if the abscess is not opened until after this period the chances are all in favor of complete and permanent obliteration of the cavity.

In opening an abscess the incision has always been nearly if not quite as long as the cavity, in order that every portion might be thoroughly cleaned, and in one case (Case IX) a double incision was necessary to expose completely the two sacs.

After closing the operation wound and adjusting a surgical dressing, a compression spica bandage is placed over all. This compression is necessary to keep the walls of the abscess in perfect apposition. The bandage must be tightly applied and the leg elevated, for in every case the return circulation is somewhat interfered with. Some of the children have complained of pain and discomfort the first day on account of the tightness, but the bandage has never been loosened and a mild opiate has been given a number of times rather than interfere. The bandage loosens very quickly and has to be readjusted every few days in order to keep up the compression a sufficient length of time.

From the third to the fifth day there may be a slight elevation of temperature, in which case the dressing is removed and a small probe inserted at the lower angle of the wound, when a considerable quantity of bloody serum will escape, in some cases as much as a half ounce. The dressing and compression bandage is then reapplied. This is extremely important, as this serum might very well change to pus, or even if not, it would separate the abscess walls, thus preventing complete obliteration and in all probability resulting in a sinus. This is of so much importance that even if there is no temperature the

wound is examined with the probe in three or four days anyway.

The child is kept in bed until all irritation which may be present from the stitches or from any cause has subsided, no matter how long it may take, as in Case VII over three months were necessary to accomplish it.

Summary.—There were 14 abscesses in all. Of these, two refused to close at all, and one opened one month after operation, making three open after operation.

Of the 11 cases remaining, the boy with double hip abscesses had a sinus develop in right hip eleven months after operation and in the left hip one and one-half years after operation, each open only three or four months, remaining perfectly solid ever since.

In the remaining nine cases, one had another abscess three and one-half years later, one three years later, and one one year later. One case died five months after operation.

Clinical Department.

EXAMINATION OF DIGESTIVE CASES.¹

BY M. P. SMITHWICK, M.D., BOSTON.

In digestive cases accurate diagnosis based on symptoms is, as a rule, impossible. A careful examination of the stomach contents in these cases will convince anybody of the truth of this statement.

CASE I. December 11, 1898, a servant girl, twenty-two years of age, entered the Boston City Hospital in the service of Dr. Francis H. Williams.

Past history.—Six years ago pains in epigastrium with vomiting; no blood. Fainted. Menstruation always regular, and usually lasts three days.

Present illness.—During past week considerable pain in epigastrium and across upper abdominal region, increased by food and by pressure. Has vomited once or twice daily about one or two hours after eating. Three days ago vomited immediately after eating, had pain in epigastrium and fainted. Two days ago commenced to menstruate but stopped abruptly after a few hours. In the afternoon vomited blood and fainted. The attending physician told patient that there was a quart of blood. Two chills after recovering consciousness. For three weeks cough without expectoration. No defecation for three days and no blood noticed previously. For two days headache, vertigo, tinnitus aurium, blurred vision, weakness and sleeplessness; temperature 100.2°; pulse 120; respiration 22. Physical examination negative except for anemia. On day of entrance a liquid black defecation considered to be blood.

December 13th. Erythrocytes, 2,000,000; leucocytes, 4,400; hemoglobin, 20 per cent.

December 15th. Vomited blood.

December 17th. Vomited large amount of dark clotted blood twice.

January 4th. Still complains of slight abdominal pain.

January 28th. Chair and blankets.

January 17th. Reds, 4,128,000; whites, 4,400; hemoglobin, 45 per cent.

¹ An abstract of this paper was read before the Clinical Section of the Suffolk District Medical Society, April 19, 1899.