communally, but she continued to grow heavier. When discharged from hospital on April 25 her weight was 8 st. 4 lb. (52.6 kg.).

Subsequently she became a welfare worker with a charitable organization in London, and was able to lead an independent existence away from home. In July it was noted that her weight increased to 8 st. 13 lb. (56.7 kg.), almost her best weight. In the autumn of 1951 she took a course in domestic science, and early in 1952 became a cook in the Y.W.C.A. On June 25, 1952, menstruation began, the flow lasting for four days. She menstruated again on August 5 and September 4, and normal menstruation continued at intervals of approximately 28 days. When last examined (February 16, 1953), she looked well (Fig. 2), and her weight was 8 st. 11 lb. (55.8 kg.). Her blood pressure was 150/90 mm. Hg. Her bowels had remained regular without aperients, and she said, "When I look back and think what it was like before the operation, I can't get over it." She remains polite, and still retains some mild obsessive traits such as checking door locks and light switches. On March 9, 1953, the 17-ketosteroids were 8.2 mg. in 24 hours.

Discussion

The most interesting feature of this history is that menstrual function did not begin immediately after the operation. Almost a year elapsed after the patient had reached her top weight before the flow began (Fig. 3). This point has been

FIG. 3.—Weight chart. Arrows show times of menstruation.

commented on by Sargent (1951), who described two patients with prolonged amenorrhoea. They were also relieved to some extent by leucotomy, and the restoration of body weight was associated with the return of menstrual function. It was noted that in the obsessive patient a gain in weight aggravated tension, but in the leucotomized patient the normal body weight could be reached without excessive tension, and menstrual function could be established.

Hubble (1952) also considered that the restoration of menstrual function depended upon normal nutrition and absence of emotional stress.

Summary

The history is given of a patient who began to menstruate normally for the first time at the age of 36. So far as is known, no patient similar to this has ever been described before. She was a woman of obsessive personality, who had kept her weight down by living on an inadequate diet for many years. The operation of prefrontal leucotomy relieved her tension and enabled her to gain over 3 st. (19 kg.) in weight fairly rapidly. Sixteen months after the operation, and almost a year after she had reached her best weight, menstrual function began. The point is made that regular menstruation depends upon a good level of nutrition, the maintenance of normal body weight, and the absence of excessive emotional tension.

ADDENDUM.—Since this paper was written, nine months ago, and while awaiting publication, further interesting

observations have been made. Feeling so much better, the patient took on more arduous work as an assistant cook in a large restaurant. The strain of this caused her menstruation to cease for three months, but it returned when she went on holiday. At the moment she is doing a very difficult job, and her periods have been absent for the past two months. Because of the modified nature of the leucotomy she remains overconscientious and somewhat anxious. This provides further evidence that in such patients normal menstruation may depend both on restoration of physique and on freedom from undue tension. Her weight remains good.

My thanks are due to Dr. William Sargent for his kind interest in this paper.

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Medical Memorandum

A Case of Dracunculiasis (Guinea-worm) in Nairobi

An Indian carpenter aged 32 complained of a painful swelling between the last two digits of his left foot. He had noticed this lump for about a week, and it was growing steadily and becoming increasingly painful. He had had pain in the left knee and very intense pain in the left groin six weeks before. The swelling resembled an abscess which was not ready for lancing. There was considerable cellulitis around the swelling. I asked him to apply hot fomentations for a day or two. He came to me forty-eight hours later in a state of great agitation and excitement, because he saw, to his horror, what appeared to him to be a horrible snake coming out of his foot. I told him not to be alarmed, and that he was not to pull or in any way interfere with the worm, but that he should wind it gently and carefully round a stick. Also that he should not allow it, if possible, to come in contact with water. He preferred to pass a thread through it and then wind it round his toes as it is done in India.

The worm seemed to come out at the rate of about an inch a day, and the cellulitis and the swelling had disappeared in about a week. The whole worm was extruded in the course of 23 days. It was the typical *Dracunculus medinensis*, about 2 ft. (60 cm.) in length, and the thickness of a knitting needle. It was white in colour.

The patient stated that he went to India nine and a half months previously. He stayed in a village near Jamnagar, which, I believe, is an endemic area for dracunculiasis. While he was there he had heard of more than 200 cases in that area. In one case the whole worm was extruded in 24 hours. He stated that he had drunk well-water which had not been boiled.

The remarkable thing is that he did not show any of the usual clinical symptoms such as fever, diarrhoea, vomiting, and urticaria, which are associated with dracunculiasis at the time of the arrival of the worm to the surface for extrusion. He complained only of pain in the knee and the left groin.

Nairobi.

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[Photo : Ram Singh]