Observations

ON

MENOPAUSAL INSANITY AND BACTERIAL TOXAEMIA

BY

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Focal sepsis as a factor in the causation of mental disease was one of the subjects under discussion at the Annual Meeting of the British Medical Association in Edinburgh in 1927. To this discussion William Hunter contributed the opening paper, and reviewed the subject at considerable length. He quoted the experience of Cotton in America and of Graves in Birmingham to the effect that the removal of septic foci frequently led to improvement or complete recovery in cases of even apparently hopeless insanity. Hunter rightly laid stress on the fact that the only test of the part played by a septic focus as a cause of insanity in any given individual was the test of removal of that focus. In the discussion that followed there was by no means general agreement as to the part played by sepsis in mental disorder, and it was pointed out that focal sepsis existed just as frequently in the sane as in the insane. One speaker accused Hunter of arguing from, and drawing general conclusions from, a single case.

In reporting a case of menopausal insanity apparently due to focal sepsis, it is not desired to draw any general conclusions; but, as similar cases may exist, it appears to be of importance to examine every case of insanity occurring at the climacteric for possible septic infection. At the Winnipeg meeting of the Association in 1930 the nervous and mental manifestations of the climacteric formed the subject of a discussion in the Section of Mental Diseases and Neurology, but in the opening paper no mention was made of uterine or other sepsis as a possible cause of such disturbed mental conditions. The main exciting cause was agreed to be endocrine imbalance. This may be regarded as the orthodox and generally accepted view.

It will be seen in the report of the present case that the existence of uterine sepsis was not at first recognized, nor was its importance realized at an early date. One reason for this was that the theory of endocrine imbalance as the cause of all menopausal insanities was accepted by both the physicians attending the case, and that, when surgical treatment for the removal of the uterus was discussed, it seemed impossible to them that such an operation could favourably influence an insanity the prime cause of which was ovarian deficiency. The existence of uterine sepsis was indeed far from obvious, even to expert gynaecological examination, owing to the absence of vaginal discharge. Probably most cases of menopausal insanity are due to endocrine deficiency, but, as already stated, on the chance of others being due to sepsis and remediable by the removal of that sepsis, it is thought right to call special attention to the following case.

HISTORY OF CASE

A married woman, aged about 50 years, came under my care in October, 1930. She had been previously well known to me over a period of some years. The history I obtained was as follows. Up to about eighteen months before the beginning of her present illness she had been a perfectly healthy, active, and cheerful woman. She had had two healthy children—now adults—and two miscarriages. Early in 1929 she began to suffer from irregular uterine bleeding. This led her to consult a gynaecologist, who told her that the uterus was slightly enlarged, and performed a curettage. Slight, if any,

improvement followed this, and at subsequent examinations a diagnosis of fibrosis uteri was made. Operation was discussed, but, since the patient was unwilling—the condition not being very severe—operative treatment was not carried out.

During the spring of 1930 some friends noticed that her manner had to a certain extent changed. She was more silent than usual, and was apathetic. In July, 1930, she went for a holiday with her husband. During this holiday she suffered from severe uterine haemorrhage, and felt very unwell. On her return home she was in fair health, till one day she received a severe mental shock in the shape of a telephone message telling her of the illness of a relative. Half an hour afterwards she was found lying on her bed in a semi-conscious state. She was then unable to answer questions, and had apparently forgotten everything that had happened to her in the previous few months. She was removed to a nursing home, where a tentative diagnosis of cerebral thrombosis was made, though it is probable that the condition was really one of acute stupor. She recovered slowly, and after two months was able to return home, although her mental state was far from normal, her memory being extremely defective. Her voice at this time was clear, but when spoken to she generally repeated what was said to her, and presented in many ways the phenomena of automatism.

In October, 1930, as already stated, I first saw the patient. At this date she was able to be up daily and to take short walks, but had developed delusions of persecution, was still automaton-like in her conversation, and was greatly depressed. Week by week her condition worsened, outbreaks of irritability and excitement alternating with depression. Finally, in December, 1930, after a consultation with Dr. Bewley, she was again removed to a nursing home, where she remained, continually confined to bed, for the next ten months.

Dr. Bewley, who was in attendance with me from January to September, 1931, describes her condition as follows:

For most of the time she was unable to speak, and unable to stand or walk. All her muscles were excessively flabby; she apparently did not recognize people. There was dribbling of saliva all the time, constant incontinence of urine and faeces, and her expression was quite devoid of any intelligence. There was sobbing and crying sometimes nearly all day. She seemed to me quite hopeless.

During these ten months, with the exception of a short period of distinct mental improvement in August, she became from the psychological point of view progressively worse. There was extreme depression, frequent fits of weeping, sometimes extreme restlessness with shouting, hallucinations—especially of sight—and many delusions.

In September, 1931, she was seen by an alienist, who diagnosed pre-senile dementia and gave a very bad prognosis. During the greater part of this time there was frequent incontinence of urine and faeces, her physical condition varying from time to time. At one period she was pyrexial for about a month, the pyrexia probably being the result of thrombosis of veins in the left broad ligament, a thrombosis which extended to the left femoral vein. On another occasion there was a pyrexia of about three weeks' duration, with severe stomatitis and some albuminuria, and on a third occasion several septic spots appeared scattered over the body. Gynaecological examination at this time showed that the uterus was somewhat enlarged and softer than normal. From time to time there was slight vaginal discharge, but this was by no means persistent.

In April, 1931, the idea was first suggested that a hysterectomy might possibly relieve the symptoms. At this date the diagnosis was one of menopausal insanity due to ovarian and other endocrine deficiency, and therefore, from a physiological point of view, an operation was thought undesirable. Further, the patient's physical condition was so poor that it was believed that such an operation would prove fatal.

In October, 1931, however, the physical condition had improved, although there was occasional mild evening

pyrexia, and Dr. FitzGibbon was invited to see the case. He expressed a definite opinion that the operation could be performed without risk, and further stated that he thought both the mental and physical phenomena were the result of septic absorption from the uterus.

The Operation

On October 7th, 1931, a complete hysterectomy was performed, both ovaries being removed at the same time. The excised uterus was found to be in a much more septic condition than had been imagined. Dr. FitzGibbon reported that at operation there were no peritoneal adhesions, the uterus was retroverted, and the parametrium on the right side of the cervix was sclerotic and contracted. The whole uterus and cervix from the vaginal fornices with both tubes and ovaries were removed: tubes normal, atrophied; ovaries small, atrophied, contained some chronic simple follicular cysts; uterus $4\frac{1}{2}$ inches long, walls of body 1 to $1\frac{1}{4}$ inches thick; cervix was $1\frac{1}{2}$ inches long—about $\frac{3}{4}$ inch vaginal portion, 1 inch supravaginal. Dr. Rowlette, who had an opportunity of seeing the specimen immediately after removal, reported as follows:

The uterus was much larger than normal, the enlargement being symmetrical and due to a general swelling rather than to the presence of a tumour. There was no fibroid or other tumour. The organ was soft and spongy, and did not present the appearance of a uterus the subject of fibrosis uteri, or show any obvious increase of fibrous tissue. The endometrium was inflamed—a dirty greyish green in colour, looking very unhealthy. In my opinion the organ was the subject of a general metritis, affecting both the muscle and the endometrium, and subacute in course. To appreciate the degree of hyperplasia, the uterus should be compared with a normal organ after the menopause atrophy, which would be about $2\frac{1}{2}$ inches long with no vaginal cervix, walls about $\frac{1}{2}$ inch thick, and all soft and flabby, with small blood vessels.

Result of Operation

From the physical point of view the patient stood the operation well, and, apart from a mild heart attack three weeks later, probably caused by small emboli reaching the lungs, she made an uninterrupted recovery. The most striking result of the operation, however, and that which leads to the publication of this note, is the fact that almost immediately after the operation her mental condition showed a most remarkable improvement. A week before the operation an experienced alienist regarded her condition as one of hopeless pre-senile dementia. Three weeks after the operation she was able to reply sensibly to simple questions. After a week she began to notice her surroundings and to recognize her friends and relatives. In a fortnight there was evidence of returning memory. From that day there has been progressive improvement physically and mentally. At the time of writing this note, five months after the operation, the patient is able to go out for daily walks and drives; she eats well, sleeps well, and enjoys the visits and conversation of her friends. She writes short letters, can read the newspaper for a short period, and her face has recovered its old expression of intelligence. She still tires easily, but continues to improve in every respect from week to week.

DISCUSSION

It was unfortunate that in this case no bacteriological examination of the specimen was made, but the report of Dr. Rowlette, formerly pathologist to the Rotunda Hospital, leaves no doubt that the condition was one of chronic bacterial infection. Such infection would explain the pyrexial attacks from which the patient suffered and also the venous thrombosis. Further, it seems almost certain that the septic condition of the uterus was the cause of the mental symptoms. The actual result of the operation, from a therapeutic point of view, was more dramatic than it is possible to convey in words. Before the operation the patient was apparently

hopelessly insane, and was rapidly passing into a condition of complete dementia. Immediately after the operation she began to improve, and the improvement, as above stated, has been progressive.

Dr. FitzGibbon, to whom the credit of effecting this cure is due, holds the opinion that many of the customary phenomena of the menopause can be averted or cured by removal of the uterus, even when no infection is present. He believes that in the process of involution of the uterus toxic products are formed in that organ which are absorbed into the blood and give rise to flushings and other symptoms. He further holds that if the uterus is enlarged or fibrotic, toxins will be formed in greater quantity than in normal individuals, and that more serious menopause symptoms are therefore likely to arise in these cases. He is a strong advocate of performing hysterectomy in all menopause cases when the uterus is enlarged, and in all cases when menopausal symptoms are severe.

To me Dr. FitzGibbon's view is entirely novel, and my own belief is that the cure brought about in the present case was due to the removal of a definitely septic focus; but the result was so remarkable, and the operation so easily borne, that I feel it would be worth while giving a thorough trial to Dr. FitzGibbon's views in all cases of menopausal insanity, provided the services of an expert gynaecological surgeon can be obtained. The case at any rate suggests the advisability of dealing radically with all foci of septic infection in cases of menopausal or other insanity.

THE MENOPAUSE AND ITS COMPLICATIONS

BY

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The case of menopausal disturbance cured by hysterectomy recorded by Dr. Moorhead (p. 923), in which the condition of the patient was compatible with a diagnosis of senile dementia, should suggest that the generally accepted ideas on the menopause are not quite correct. Dr. Moorhead indicates that I place a different interpretation on the clinical symptoms generally supposed to be due to the menopause from that usually accepted. It was owing to these views that I expressed the opinion I did in Dr. Moorhead's case, and in this paper I wish to propound, and as far as possible explain, my own. For that purpose I must give my summary of the case, which was an extreme one of its type; but my beliefs are not in any way based on it, although it adds considerable support to them.

DR. MOORHEAD'S CASE

I have been personally acquainted for many years with the patient. She was married when 22 years of age, and had one child soon after marriage. She acquired a retroversion of the uterus after her confinement and had two early abortions and a second child seven years after marriage. The uterus then remained in retroversion. There was evidence of septic infection at her confinement, but this cleared up, and the patient subsequently led a normal, active, healthy life. The monthly periods were always of the heavy type, and became more so from the age of 45; this, as usual, was considered to be associated with the approach of the menopause.

When 49 years of age curettage was performed on account of the menstrual loss, but without benefit; the uterus was found to be retroverted and enlarged. The possibility of a fibroid was considered, as well as hysterectomy; this was not done, as the existence of a fibroid was very doubtful, and the monthly periods continued to occur regularly. At