Section of Psychiatry

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Pre-Psychotic Anorexia

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THE title of this paper is perhaps ambiguous, and in its very ambiguity lies its object. That object is to discuss the function of the diagnostic label as illustrated in certain diseased conditions characterized by anorexia. It is an attempt to display the twofold nature of this function as a security for essentials of therapy and a stimulus to a review of causation.

Pre-psychotic anorexia includes a range of cases, the most typical being "anorexia nervosa" which has in turn been assigned to the pure psychoneuroses or to the incipient psychoses. I shall describe a case labelled "anorexia nervosa" and pick out those characteristics which link it with allied conditions: such considerations may lead to deeper understanding and more fruitful treatment.

I select the case of Miss M. which I have been able to follow for some years and have had considerable opportunity to study. It corresponds in outline with the classical cases recorded by Sir William Gull and Charcot. The patient complained of nothing, but was brought for consultation by her parents, who were alarmed at her progressive loss of weight and her obstinate refusal to take adequate nourishment. The appearance of these cases is always arresting. My patient, Miss M., was then 19 years old; she was 5 ft. 6 in. in height and weighed 6 st. Her condition had begun insidiously, but had been fully developed for a year, with complete amenorrhœa. At this time she was 2 st. under normal weight and shrinking rapidly, though she had not reached such fantastic weights as 4 st., which are frequently achieved. She had by no means reached the terminal stage of exhaustion, and was still indulging in riding, tennis, walking, which produced so little fatigue that every interval was filled with feverish attention to self-imposed household tasks. The energy expended in this way was maintained on a diet which scrupulously excluded anything nourishing. She allowed herself grapefruit and a little toast, and at meals made a pretence of eating a scrap of meat with green vegetables. An obstinate constipation was the result of this starvation, and she cheerfully resorted to large doses of purgatives.

I ask you to imagine Miss M. as a skeleton decently but inadequately clothed in a meagre mantle of flesh, through which the bony prominences of every joint were clearly defined, as was the framework of limbs and thorax. The abdomen was concave and all swelling of the breasts had gone; the skinny neck looked unduly long and hardly capable of bearing the head, with its wizened deathly face and two dark burning eyes crowned by a tousled mop of glossy black hair. She was of mixed parentage; her father was a Greek and her mother Scotch, and from her father she inherited a typical modern Greek appearance and no small share of southern fire.

She had been fully informed that her cure in the nursing home would involve separation from her family, but she never believed that her mother would abandon her. When she heard her mother get into the car she rushed to the window and tried to throw herself out with hysterical screams which were luckily drowned by the noise of the engine ; she was left. From that moment she more or less gave in to be cured. Fortunately her parents were willing to acquiesce in a necessary isolation ; this resolution was forced on them by their inability to deal with the patient's mental attitude. This was peculiar : her natural shyness had become intensified and accompanied by scrupulosity and an unnatural solicitude for the welfare of others as long as she was left undisturbed in her regimen of exercise and starvation. Any interference with this immediately roused storms of remonstrance and actual violence, particularly against her mother.

After hearing the parents' account I felt the patient should be heard in her own defence, which was, however, totally unsatisfactory. She ascribed her behaviour to the most trivial causes. She says she is quite well, eats almost excessively and certainly could not eat more as she is not hungry ; she is not tired and exercise is essential if she is to eat at all ; everyone eats too much ; there is nothing the matter with her, it is all the stupidity of other people as she never felt better in her life. She gives a baffling impression of offended dignity which admirably masks a most obstinate determination. In the general management of this case the first essential of treatment is the restoration of nutrition, and all writers are agreed as to the methods, not always successful, which should be employed for the purpose. This " distemper " was mentioned by Morton as early as 1694 and again in 1789 by Naudeau, who graphically described " an amazing revulsion from food " ; but little attention was paid to it till the last half of the nineteenth century. In 1868 Sir William Gull drew attention to these cases, and in 1874 gave a full account of the successful treatment of several in the *Transactions of the Clinical Society*. Subsequently there have been many interested observers both here and abroad. There is general agreement on the two fundamentals of treatment ; the first is isolation and feeding under strict supervision, and the second is some form of psychotherapy. Isolation is essential in order to remove the patient from an environment which reacts emotionally to her condition and further to prevent interference of the parents in the treatment, for they cannot believe the consummate duplicity of their child, and if they do, ascribe it to moral perversion rather than mental disease. The patient protests with bland horror at the attendance of a special nurse and complains that no one trusts her and she will certainly eat all that is given her. But unless the nurse watches every mouthful disappear and remains beside the patient for a considerable time afterwards she will get rid of her food, down the water closet, the hand basin, or by concealment ; she lies unblushingly, and it is only a steady increase in weight which can give assurance that deception is circumvented. The patient should be put to bed to restrain insensate exertion, and will even then leap in and out of bed at the least excuse. She should be given food at regular intervals and in increasing quantity. What the patient should be given at first must be regulated by the individual condition. The attitude of the physician, whose inflexibility must match that of the patient, should combine a benevolent assumption of authority, " I know and you don't ", and a skilful evasion of all argument. This first stage is the most difficult, for the physician will be greeted by a recurrent demand for more liberty and less food, and though the patient apparently acquiesces, the sight of food is the signal for antagonism and tears.

The clinical manifestations of her state can be summarized under four heads :—

(1) Emaciation.

(2) Loss of appetite without digestive disturbance and reduction of food intake to a minimum.

(3) Persistent amenorrhœa.

(4) A peculiar mental state of a euphoric type.

With emaciation and loss of appetite the possibility of a wasting disease should be considered. Tuberculosis in particular must be considered as undoubtedly some of these cases die of it. In Miss M.'s case such a possibility was easily excluded. Apart from a pulse-rate of 44 and a systolic blood-pressure of 88 she showed only one other point of interest, and that was the growth of hair on the body. There was a general distribution of downy hair on body and cheeks, while the arms and legs were covered with coarse dark hair and lines of similar hair extended from pubes to umbilicus. In front of the ears, in what might be called the whisker region, the down was long and dark, and in general the hair grew close round the face. The growth of hair has been noticed by Ryle and others, and together with the amenorrhœa has suggested an endocrine disturbance. At this point comparison with another well-known wasting illness is suggested—that is Simmonds' cachexia. Since the original paper was published in 1914 the condition has been frequently described. Simmonds was first and foremost a pathological anatomist, and his observations are based on post-mortem findings of destructive changes in the pituitary gland, so that the clinical picture has been associated with observed organic change ; and it has been possible to institute cure by supplying the secretion which had failed through destruction of the gland. Careful observers have, however, recorded similar cases in which no organic change was found and in which a functional depletion of the gland must be accepted. It would be hard by superficial examination to distinguish in the middle stage between a case of Simmonds' disease and one of anorexia nervosa when certain later distinguishing features have not developed. The loss of appetite, the striking emaciation, and the amenorrhœa, are all comparable. There are, however, important differences in the evolution of the two conditions and in the mental attitude of the patients. The onset of Simmonds' disease is abrupt, that of anorexia nervosa is insidious ; in the former loss of weight precedes the reduction in alimentation ; in anorexia nervosa it is the result of the starvation. The amenorrhœa is usually a late event in Simmonds' disease, in anorexia nervosa it precedes or is coincident with the mental change which produces refusal to eat. The age-incidence in Simmonds' disease is more variable and less commonly associated with puberty ; it is confined to females and often occurs after circumstances which might induce pituitary exhaustion, such as pregnancy with hæmorrhage and prolonged labour. In the late stages of Simmonds' disease the teeth and hair fall out, a condition never noticed in anorexia. There is a profound difference in the patients' mental state. I have described the morbid energy and obstinacy of the anorexic, but these other patients show weakness, mental lethargy and somnolence, with a readiness to co-operate in treatment, though later delusions may make their appearance. I have consulted numerous authors in this connexion. Sheldon, Hawkinson, Herman, Schulmann, Loeper and Fau, Gennes and Delarue, and should like to make a few quotations from these sources :—

(1) That Simmonds himself thought that the cachexia was fundamentally mental in origin.

(2) Sheldon considers Simmonds' cachexia and anorexia nervosa are fundamentally the same except for predisposition in the latter.

(3) Here (in Simmonds' disease) the anorexia is a defence of the organism against food which it can no longer assimilate.

The long and interesting paper of de Gennes, Delarue and Rogé describes a typical case of hypophyseal cachexia with a fatal termination. An autopsy revealed no gross or microscopic change in the pituitary but complete atrophy of the ovaries and suprarenal cortex and some alteration of thyroid structure. Reciprocal relationships exist between these glands and the pituitary though we are far from understanding their precise nature, and these authors urge the use of the term Simmonds' syndrome to indicate the tentative state of our knowledge. In 1932 Baudouin, Lhermitte and Lérebouillet reported the case of a young man presenting the symptoms of Simmonds'

syndrome, where the autopsy revealed a tumour of the pineal. Endocrine disturbances can therefore be assigned as the cause of diseases which present strong affinities with anorexia nervosa. The endocrine basis of this latter is " unproven " but has been frequently adduced. Léopold Lévi and others regard it as due to thyroid deficiency and point to the slow pulse and low basal metabolic rate ; but the cases described are not typical and on the whole thyroid has fallen into disuse.

Many observers are, however, satisfied that the whole pathology of anorexia nervosa is the pathology of a condition of starvation. I quote from Ryle's masterly article in 1936 : " It may be doubted if anorexia nervosa possesses a morbid anatomy, histology or chemistry of its own if we except those changes which come about as the result of starvation and a depression of the menstrual function." He, however, emphasizes the amenorrhœa and the hirsuties and says of the former " it accompanies the disease from the beginning and is an expression of the initial nervous trauma which accompanies the malady from inception to cure ". He suspends judgment on their significance. In May of this year a paper was published by Wallace Ross in the *Lancet* directed to proving that the pituitary gland has no relationship to this condition. It is easy to agree that the disturbances of carbohydrate metabolism on which he bases his argument can be fully explained as the result of starvation alone without any theory of glandular deficiency. The case which he quotes does not suggest the mental picture of anorexia nervosa, and as she was a girl before the onset of the menses his arguments are deficient in one vital particular. He summarily disposes of the significance of amenorrhœa in these words : " In all probability therefore amenorrhœa can arise either directly or as a consequence of wasting, independently of any special endocrine disorder." This was certainly the earliest supposition with regard to this feature of the malady, but later observers are almost unanimous in saying that many cases show an obstinate amenorrhœa which persists long after appetite is restored. A French writer, Ballet, states : " As long as the patient has amenorrhœa she is not cured. Even if she has become plump, relapses must be feared as long as the menses are not restored."

I should like to illustrate this point in the case of Miss M. She remained in the nursing home from August 1932 to the end of April 1933. During this time she put on 1 st. 10 lb. in weight ; she looked blooming and was living a normal life without special supervision. The tendency to compulsive exercise was gone and she had become much less seclusive. The menses had not reappeared since her last period in August 1931. After a short visit home she went to live in a family at one of the Universities to prepare for the entrance examination, as she wanted to study literature. At that time I had tried various pituitary and ovarian preparations with no success, and her mental condition still appeared unstable. In August 1934 I gave the patient a series of injections of progynon and proluton following Kauffmann's technique, and at the end of four weeks there were menstrual pains. A second series of dimenformon and progestin was followed by a period, the first she had had for three years. An immediate change for the better took place in her mental outlook and she expressed a joyful feeling of being a normal girl. I must not, however, minimise the fact that at this point she passed her entrance examination, no mean feat for a girl who had never had any proper schooling.

The mental state of these patients is of foremost interest, and it would be impossible to discuss it without facing the question of motive. I shall here tacitly assume that we accept Freud's theory of the Unconscious and all his major affirmations but permit ourselves to question their universal validity.

The refusal to eat is no uncommon symptom in mental disease, and it is necessary to attempt some differentiation. Melancholics frequently refuse food, but their refusal can always be directly referred to their delusions of unworthiness. Patients in states of elation may exhaust themselves by neglecting their meals, but this is rather a result of the flight of ideas which carries them away heedless of consequences ; the

anorexic has no flight of ideas but rather a fanatical domination by one idea. Again patients suffering with paranoia will refuse their food, due to ideas that they are being poisoned. Anorexia nervosa was at first regarded as a form of hysteria or possibly hypochondria, but this was displaced in favour of a more serious classification as dementia præcox. The refusal to eat would then be regarded as part of a characteristic negativism. It may be noted that Robert Dubois in 1913 published an account of a case which began as a typical anorexia nervosa and in ten years' time was a fully developed schizophrenia. Several French authors describe a type of case which evolves from hypochondriacal ideas about the digestive function, fostered by the institution of diets and leading finally to loss of appetite and refusal of food ; they may well be variants in a long series of allied conditions.

The differentiation between hysteria and anorexia nervosa is of the first importance as it must largely govern our selection of treatment. At the present moment I have two patients, one with anorexia nervosa and the other with hysterical abstention from food. The first has run a very chronic course with long periods of amenorrhœa and no other symptoms. The second has always had regular periods, her breasts are normally developed, though the rest of her body is much reduced by starvation ; she further presents alternatively attacks of asthma and urticaria. A mono-symptomatic hysteria is a doubtful candidate for classification with that protean disease. The superficial mental attitude of the two patients is sharply contrasted. The hysteric makes parade of her inability to eat and undoubtedly eats when it suits her ; the anorexic tries to dissimulate the fact that she does not eat. The hysteric desires to elicit sympathy ; this is far from the anorexic, but she may enjoy in some less direct way her ability to tease and deceive those about her. I should say that the purpose of the anorexic to starve herself is of fundamental importance. This is illustrated by their different reactions to isolation : emotional neutrality in the environment will make the hysteric eat in order to escape to one more congenial to her purposes, and we know she will eat when unobserved. Not so with the anorexic, who will only eat when under strict supervision. The hysteric welcomes attention from her environment directed to her disabilities, while the anorexic is mysterious and tries to evade inquiries ; it is as though the hysteric plays a drama to her environment and the anorexic to herself. An analytical investigation in the case of this hysterical patient has produced a perfectly coherent picture of psychological causation. Her age is 32, old for anorexia. She was the eldest daughter of a marriage seemingly devoid of all emotional significance ; the wife had money and land and the husband managed it. They belonged to an almost extinct race of minor landed gentry and both were devoid of emotion and imagination. The mother only wanted a son to inherit her property and had no use for two elder daughters, merely showing vague signs of life when a son was born nine years after my patient. This child knew no tenderness or love from the mother, whose stupidity inflicted constant minor cruelties ; she had no emotional rapport, no security. Her constitution was allergic and she soon discovered that her attacks of asthma were the only thing that roused her mother's attention. Her asthma lasted till adult life and disappeared during psychological treatment. In spite of her unfavourable surroundings she had a good deal of spirit, and after much opposition she escaped from home and qualified as a radiographer. Alas, having so escaped, she did not find herself capable of securing in the world the valuation she so sorely needed, nor was her work able to contribute much emotional satisfaction. She therefore never applied herself seriously to her profession, but fluctuated between work and home lest they forget her entirely. At home she obtained some satisfaction by causing anxiety about her asthma and the dangerous nature of her work. Presently her mother died, and then she transferred her operations to her father, who failed entirely to be moved by asthma. A new symptom was clearly needed, and at this point she began to starve herself. This proved efficacious and roused her father's attention by a curious echo from infancy. She had been difficult to feed ; her mother

could not do it, and no satisfactory substitute could be found till, faced with the loss of his child, the father enlisted the services of a donkey, on whose milk this unhappy child survived. Frustrated and unhappy in later life, she wished to bring about the death from which she had been saved and by a method calculated to wring the hearts of the most stony parents. She stated her difficulty thus : " If only I were happy I could eat and be fat and how I long to be fat for that would mean I was happy." In spite of a great reduction in weight there was no loss of appetite in the strict sense. Many authorities on anorexia emphasize that the refusal to eat brings with it a loss of appetite which is physiological.

We can appreciate hunger and appetite as two conscious elements in physiological sequences. Hunger is awareness of the general need of the organism for fresh supplies of metabolic material, while appetite is the knowledge of the presence of, or memory of, suitable substances to meet the need. These two combined result in action—the ingestion of food. The thesis of Noguès, *Anorexie Mentale*, passes in review numerous theories of the physiology of hunger and the balance of evidence minimizes the rôle of gastric contractions as a primary cause of hunger ; these localized sensations are rather an echo of a general cry for restoration. The arguments excellently presented in Wallace Ross' paper, which seek to explain anorexia nervosa on a basis of the physiology of starvation, appear too dogmatic. No doubt fluctuations in blood-sugar level are part of the mechanism by which we recognize our bodily needs, but we are still in the dark as to influences which may affect these signals. The condition of cellular metabolism must be fundamental, and this is intimately associated with the activity of thyroid and ovaries and influenced by the circulation of toxins. Perhaps we may say that in true anorexia nervosa the loss of the sensation of hunger may be due to glandular interference with cellular metabolism, but that its real importance is that it enables the patient to pursue her morbid purpose without undue distress, rather than acting as a cause for perpetuating the fast. What then is this morbid purpose ? In all cases I have seen, behind the trivial excuses offered lurks a fanatical desire to be thin and a dread of obesity. Miss M. said : " I am terrified of getting fatter or even of not getting thinner." The psycho-analytic interpretation of this state of mind would regard fatness as the sign of indulgence in the pleasures of the mouth and that the intense guilt associated with these impulses must be penalized by starvation and purgation. Such mechanisms can be brought to light in analytic investigation of these patients, but their restoration to consciousness does not seem to produce an amelioration of the condition as in other compulsive states. They appear to exist apart and not to be charged with the profound affect latent in this condition. Obesity appears to be dreaded rather as an unbearable affront to narcissism. Perhaps we can more fruitfully inquire into the circumstances attendant on the inception of the malady. One writer puts it thus : " the soil in which anorexia nervosa grows is adolescence." What is this " soil " of adolescence ? We know its physiological instability and something of its psychological difficulties. It is to these latter I would first draw attention, and I should like to quote a passage which I recently encountered in a French novel, for in many ways the French have the most penetrating insight into feminine psychology. " The only satisfactory destiny for a woman is a happy marriage. Thus she is dependent on a man and she knows it very early. It is true that an adolescent boy suffers from feelings of impotence and inferiority, but he knows that the young man he will be by and by can do what he likes with his future. A girl fears the future. A boy knows his future will be what he wishes, while a girl knows that hers will be what a man wishes. During this period of adolescent uncertainty a girl is more prone to daydreams of happiness because in advance the achievement of that happiness is uncertain." Stated more crudely—adolescent anxiety in a girl centres round doubts as to her ability to influence her environment to secure a mate. When an anorexic patient begins to confide her troubles they are always associated with doubts of sexual

potency. She does not have periods like other girls, she does not experience the sexual thrills that others describe, she feels unable to attract boys. The majority of cases are to be found among the leisured or wealthy classes and among girls who have been spoiled and petted. Marriage is usually the only possibility visualized in their education, the only means of self-realization, the only claim recognized. Spoiling is the fostering of narcissism. Miss M., brought up abroad in the luxury of a white society employing native servants, was a little princess, and she expected a fairy-tale success. What are the likely reactions of a girl so nurtured when faced with a vaguely perceived inability to fulfil her sexual rôle ? The situation will generate anxiety as surely as the threat of war to a community. There are not lacking other factors which stimulate her fears. Mothers with their eyes on the marriage market show anxiety about the amenorrhœa and are not always guarded in their comments. Miss M. said to me : " I did not worry much about my periods till mother said, ' I couldn't let anyone marry you unless that comes right ' ; I knew I didn't have the same sex feelings as other girls, I began to think I was a freak." The anorexic associates the plumpness of adolescence with her sense of sexual insufficiency and begins to try to remedy this obvious sign by dealing drastically with the fat. As soon as this mechanism is set in motion many secondary motives make their appearance and satisfactions are obtained by the revival of infantile partial sexual elements and by the mystification and annoyance of her parents. I have had opportunities for making prolonged attempts at analysis with these patients and have never been able to satisfy myself of a causal psychological sequence such as there is in my case of hysterical anorexia. The material appears in a much more disjointed way, not bearing an adequate emotional relation to the picture, much as material is produced in certain schizophrenic cases. Paraphrenics and paranoid schizophrenics show discharges of affect connected with their delusional systems which are comparable in quality with the discharges encountered when we interfere with an anorexic. The hatred and aggression thus roused are not adequately discharged through a parent transference, as in the case of a hysteric, but remain as it were a primitive rage, the result of affronted narcissism.

I have just read a lucid and illuminating article by Mayer-Gross on the early diagnosis of schizophrenia, and I should like to quote a few lines from it :—

" The normal emotions of affection and sympathy for the patient's nearest relatives and friends cool off or take on a quality of shallowness during a commencing illness. More primitive emotional reactions—for example fear or rage—are preserved longer."

This corresponds closely with the affective state in anorexia nervosa. Should we therefore think of this condition as a latent form of dementia præcox ? It may well be as in the case of Dubois. Miss M.'s mental processes show a distinct schizoid tendency. In her finals at the University she received much credit for an essay savouring of mad genius ; in an endeavour to present the cosmic implications of tragedy she soared away into the nebulous realms of modern physics and treated the fourth dimension with a familiarity Einstein might envy.

I believe that psychological treatment helped Miss M. by giving her more insight and developing less barbarous values, but I do not think she is stable, and I have been able to watch fluctuations of her mental condition closely following the state of her menstrual function. This has never been completely established, and at times she still requires ovarian hormones, to which she responds mentally and physically.

Earlier in this paper my perforce sketchy references to Simmonds' syndrome may have appeared to obscure rather than illuminate, but I hope that I have now clarified my line of thought. It leads me to the conclusion that anorexia nervosa is connected with primary ovarian failure as Simmonds' cachexia is with primary pituitary failure, the interrelationships of these glands allowing many variations of the essential picture. Noguès in 1913 suggested the likelihood of ovarian failure, though at that time adequate substitutes were not available ; in 1937 Vidart published an admirably thoughtful article on mental anorexia and indicated ovarian therapy as one of the

essentials of treatment. We do not know the relationship of ovary and pituitary to tissue metabolism, but I have noticed that when an anorexic regains normal weight she does not attain a graceful, attractive figure, but shows a tendency to puffy lumpiness. This might suggest thyroid deficiency but is unaffected by exhibition of the extract. Can we venture to postulate a faulty state of tissue metabolism which interferes with the normal signals governing the sensation of hunger and is due to the lack of essential hormones ?

If therefore anorexia nervosa has its springs in the instability of the sex glands in adolescence, it would be reasonable to think that milder cases indicate only a functional retardation of development. The school and home environments may make too great physical and mental demands on these patients ; rest and re-alimentation in a neutral setting may allow spontaneous establishment of the menstrual function. More severe cases would indicate some constitutional factor of inherent gonad deficiency. The male cases reported appear to be of a severe type. Fatness is not a phase of development in boys as it is in girls at adolescence ; the fat boy at this age is therefore more likely to be a glandular dyscrasia than the fat girl. A fear of fatness in a boy leading to self-starvation is therefore likely to be associated with profound gonad deficiency and to prove resistant to treatment.

It would be satisfactory to be able to place the abnormal hairiness of these patients in coherent relationship with the picture they present : this I cannot do. In the case of Miss M. there was a general distribution of downy hair and also coarse dark hair on the limbs, linea alba, and in front of the ears. The general distribution of downy hair is most commonly seen, and it tends to disappear when the patient is well. I have never seen any development of beard or moustache in these patients, as is common in schizophrenics and in women at the menopause. They do not present the anomalies of hair distribution recently described in association with a pathological state of the adrenal cortex. I do not know whether such hairiness is found in famine victims ; it is certainly absent in the case of hysterical anorexia I mentioned, but it is seen in some cases of tuberculosis. It does not seem to indicate masculinization but rather a degeneracy or animalization.

My endeavour has been to show anorexia nervosa as a recognizable high-light in a series of varied conditions associated on the one hand with dementia præcox and on the other with definite endocrine disorder. Such a survey leaves everything in doubt, but this is a paper for discussion, and if it opens fruitful lines of thought its title and its purpose will be justified.

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Discussion.—Dr. NEILL HOBHOUSE : I was very much interested by Dr. Nicolle's review of the various factors—neurotic, psychotic, and endocrine—which at different times have been held to underlie this disorder. Many of us who have seen these cases during a number of years have oscillated to some extent between them. We did not find it easy to explain them as purely neurotic ; mainly because they were inclined to die. Then the idea of a schizophrenic origin presented itself as a refuge from these difficulties. I was driven from this refuge when I first read Dr. Ross' " Enquiry into Prognosis ". Dr. Nicolle finds difficulty in accepting a mono-symptomatic hysteria ; it seems to me that a mono-symptomatic schizophrenia with a recovery-rate of 80% is an idea still harder to assimilate. Then in recent years the idea of an endocrine basis came into prominence, and was strongly reinforced by the clinical resemblance between anorexia nervosa and Simmonds' cachexia.

I think it is beyond doubt that a condition of true pituitary cachexia exists, which includes the type of case described by Simmonds and also many which run a much more benign course, and some of which respond to treatment by pituitary extracts. But I am firmly convinced that this disorder differs fundamentally from the type of case which Dr. Nicolle has described to-night, and I do not believe that there is any valid evidence for attributing the latter to pituitary defect. I have observed some cases which were regarded by me and others as pituitary cachexia, and I very much doubt whether a real anorexia was an essential symptom. I remember particularly one case, a girl aged 19 with prolonged amenorrhœa and emaciation ; she was a poor eater, but to talk of anorexia would be exaggeration. She was perfectly co-operative, and there was no difficulty in getting her to take a diet containing full calorie requirements, and on this entirely adequate diet she continued to lose weight. I believe that, whereas in anorexia nervosa the wasting is the direct result of starvation, in Simmonds' disease this is not so ; they may lose weight on an adequate diet just as does the thyrotoxic.

In a disorder such as anorexia nervosa where pathological evidence is lacking, but clinical features are remarkably constant, insight into its nature must best be obtained by a close evaluation of the latter. One of these features, though it is fully recognized, seems to call for more explanation. If one considers the diets which these patients have usually been consuming before treatment it is not only the quantity which is abnormal ; they have a way of selecting a remarkable mixture of meat extractives and carbohydrate slops. The effect of feeding a normal individual on this diet would be twofold ; it would lead to emaciation and it would cause dyspeptic pain. This is just what does not happen in anorexia nervosa ; even though the alimentary condition is complicated by obstinate constipation which is dealt with by drastic purges no pain is experienced. Sufferers from this disease do not feel the sensations of appetite, or the pangs of hunger, or the dyspeptic pain which would normally be evoked by the existing conditions. In this complete unawareness of the sensations connected with nutrition I am reminded most of children suffering from pink disease, where there is undoubtedly a blocking of autonomic impulses by physical

disease. In anorexia nervosa it seems obvious that there is a disturbance of function somewhere in the endocrine-autonomic system, but are there any grounds for locating it in the pituitary? Surely there is a block in the *afferent* impulses from the viscera, in the autonomic nerves, and these patients suffer from an anæsthesia and analgesia resulting from it.

When the disease progresses unfavourably the clinical picture passes on to one of starvation. But I am not sure that the picture is quite that of starvation from other causes. I have never observed in patients or in records the appearance of œdema, or the development of ketosis with its resulting symptoms. It is possible that even in starvation the autonomic system of these patients does not function in the customary manner.

As to the nature of this blocking of afferent impulses, all the evidence available is against the presence of any physical disease. It seems therefore most likely that it is of the nature of dissociation, which brings the pathogenesis into the category of hysteria. I know that this view will be unacceptable to many psychiatrists, Dr. Nicolle among them, and I would like to put forward some considerations in defence of it. Dr. Nicolle discussed with great acumen the differential diagnosis of anorexia nervosa and manifest hysteria, and her remarks certainly carried conviction. But I would suggest that anorexia nervosa is of the nature of *conversion-hysteria*, which often does differ in much the same way from the more usual forms, and simply consists of a dissociation of certain neurones of a distribution corresponding with an idea. Those conversion-hysterias which we see rather little of now, but which we saw much of in the War, were quite often mono-symptomatic—at any rate until someone "cured" the symptom; then they sometimes became poly-symptomatic. My own belief therefore is that anorexia nervosa is primarily of psychogenic origin; that the patient becomes protected from the discomforts and pains of starvation by dissociation of afferent neurones, and that the ensuing bodily changes are purely secondary to inanition.

It seems to me that the idea of a primary ovarian failure, to which Dr. Nicolle inclines, must for the present remain in the balance. Ryle commented on it as follows: "The occurrence of the disease in males and in women after the menopause reminds us that a primary ovarian dysfunction cannot very well be claimed as an essential cause of the disease." Unless we find grounds for believing that the cases described in males were something different from anorexia nervosa, I do not see how the validity of this statement can be disputed. I certainly think that one of the ways in which the elucidation of the pathogenesis of anorexia can best be served in the future will be by a critical investigation of any cases which may be observed in men.

The PRESIDENT, after congratulating Dr. Nicolle on her admirable paper, referred to cases of anorexia in which the main factor is a refusal to accept destiny. He referred to the speaker's quotation from the French novelist, in which it was suggested that the greater frequency of anorexia in females as compared with males was attributable to the fact that the girl cannot look forward to shaping her own destiny in the same way that the youth can. In this connexion he described a case of acute anorexia in an undergraduate aged 20, who had adopted starvation as a compromise form of suicide and as a protest against a destiny which biologically and functionally was completely unacceptable to him.

Dr. W. PATERSON BROWN: Dr. Nicolle has shown us the fear of sexual inadequacy in the anorexia nervosa patient. She has related the not eating to a fear of growing fat, and consequently sexually unattractive to the male.

This explanation is superficial and inadequate as it does not recognize the active repudiation of sexuality which is going on in these cases and which I should like to stress.

At the deeper and more primitive level of the mind where this occurs the ingestion of food symbolizes impregnation and obesity pregnancy.

In this connexion it is interesting to reflect on those mental hospital patients for whom tube feeding has become a conscious sexual experience.

I have myself come across two such cases while working at a mental hospital.