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PSYCHIATRIC EXPERIENCE IN THE SPANISH WAR

BY

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The fears by which the civilian of any city in Republican Spain was likely to be troubled during the recent war were: (a) that he or his family might be killed or wounded by bombardment, whether from the air or by artillery; (b) that he might be called upon to serve at the front in the Army; (c) that he and his family might be slowly but progressively starved, owing to the scarcity of food; and (d) that he might be ruined economically, owing to the fall in the purchasing power of Spanish Republican money. It was the last two fears that, in fact, proved to be the better founded.

Effects of Bombardment and Hunger

Broadly speaking, it can be said that what the average English reader has been told about the facts of bombardment in the crowded cities of Spain is exaggerated. No doubt, from a moral point of view, air raids are an unbearable outrage for the civilized man, whose normal reaction is one of "repugnance and horror" (as Mr. Chamberlain said in regard to the terrible air raid suffered by Barcelona on March 17, 1938). But if we coldly look at the facts we find that less damage was done than might have been supposed: the number of people killed in Barcelona by bombing in over 250 air raids was no more than 4,357, which is almost identical with the number of deaths caused by street accidents (mainly car accidents) in the city during the same period of time (thirty months). So it may be said that the probability of being injured by a lorry, motor-cycle, or motor-car when walking round the streets of Barcelona or Madrid in time of war was almost as great as the chance of being injured by a bomb.

The Spanish people very quickly adjusted themselves to air raids, and although only 10 per cent. of the population of Barcelona could be protected by shelters these were by no means crowded during the day-time raids. The average inhabitant, being convinced of the small risk of death from a direct hit by a bomb falling on him, preferred to remain in his office or flat rather than to walk along the street to get to a shelter. The only precaution adopted was to keep away from windows and glass, which might be easily broken by the "blast" following the explosion of a bomb in the neighbourhood. When air fighting was going on, even those who had bumped their heads rushing into a shelter in the beginning of the raid soon bumped them again as they ran out to see what was happening, curiosity proving stronger than fear. Conditions were, of course, different at night: then, all that people wanted was quietness and rest, and in order to get both they travelled out of the city or slept in the underground stations or in shelters, since otherwise the loud noise of anti-aircraft

guns and of bombs was not unlikely to awaken them two or three times in the same night.

Very much worse in psychological effects than the air raids was the slow but continually increasing hunger, observed especially among the civil population of the big cities (Madrid and Barcelona). In Madrid at the end of 1938 there were 35,000 cases of pellagra. The symptoms were cutaneous rather than mental, and responded well to nicotinic acid, which was sent from the United States and administered by mouth and hypodermically. It is significant of the conditions prevailing that in Madrid, with its population at that time of 800,000, the official allowance of food provided only 1,200 calories daily for each person. People who would stand their ground in the food queues during an air raid became desperate and hopeless when they failed to get the promised amount of bread or other basic nourishment. Hence a special attitude of mind was aroused, not by the physical effects of the guns and bombs but by the insidious mental effects of starvation. Thus the cry, "I don't care what happens, but I must and will eat," was a warning sign of what some months later came to pass—namely, the sudden and total collapse of Republican resistance. In the war butter was quite as important as guns.

Incidence of Mental Illness

The amount of psychiatric illness which developed during the war did not call for the provision of more psychiatric beds than had been available in time of peace. The number of beds actually occupied and the population to be dealt with varied according to the shifting fortunes of Republican Spain; the population can be estimated roughly at 11,000,000 before the last offensive. This was true of both the combatant and the civil population. In my duties as Chief Psychiatrist to the Army I had much opportunity for judging the incidence of mental illness. The proportion of beds was one to a thousand men—that is, there were 825 beds for an army of roughly 850,000. There was no increase in the amount of psychosis over that observed in peace-time; there were more neurotic conditions, but since it was not necessary to keep these patients under observation for the same length of time as had been customary when dealing with psychiatric conditions before the war, the actual number of beds remained about the same. Soldiers who showed anxiety or other neurotic symptoms were promptly withdrawn from the front line and taken to hospitals some twenty-five to thirty miles further back, where they were treated by the same methods as the civilian population (see below). In most cases it was possible for the soldier to be returned

to the front line after an intermediate period of "reconditioning," during which he was gradually prepared for the rigours of the front. Few of these men relapsed. That there was on the whole so little neurosis in the Army and that it could be dealt with satisfactorily may be attributed largely to the selection of the soldiers. Until the last months of the war no man over 35 served other than voluntarily. Moreover, as various batches of men came to be enrolled, any who reported that they had had any neurotic symptoms at any time were referred to a psychiatrist, who would see that those prone to a nervous breakdown were not put in the actual combatant services but were drafted into some auxiliary service—for example, transport. This was one of the most important activities of the psychiatrists during the war, and called for psychiatric ability and experience to a greater extent than the immediate care and treatment of psychiatric casualties, which, as mentioned below, could be largely reduced to a routine. The men at the front were a selected and stable group.

A similar selection occurred to some extent in the civilian population, inasmuch as the first few bombardments of Barcelona drove the more sensitive and timid inhabitants out into the country, where they remained. After a time the people in the city became almost indifferent to a bombardment if it did not affect their own district. Those who were brought into hospital immediately after an air raid were almost exclusively people who had been in the immediate neighbourhood of a spot where a bomb had fallen. Unless the upset was fairly severe, people were not brought into the neurological or psychiatric centre, but were treated, perhaps by the chemist, or were taken straight home. Some would show hysterical reactions (conversion symptoms, however, were rather uncommon, because many of the gross hysterics had fled the city before, or at, the first bombardment), some would be in a stupor, and many would show anxiety. It should, however, be emphasized that a great part of the population would feel what may be called "normal anxiety" during an air raid, but never needed psychiatric attention. Those with hysterical reactions could be promptly dealt with by rather rough-and-ready means. Often contact with other patients obviously more ill than themselves had the effect of putting an end to their symptoms and they were able to return home.

Of the *anxiety cases* some appeared to be due to actual physical damage to the brain—*commotio cerebri*, mostly from the small bombs which were used in the bombardment of the civilian population, as well as large incendiary bombs. Those whose state of anxiety corresponded to what is seen in civil life were treated by isolation and sedatives, amounting for the first four or five days to continuous narcosis. The amount of sedative drug was then gradually reduced and the patient reassured: no more psychotherapy seemed to be needed by these patients than brief reassurance for a few minutes on one's regular visit. If such measures as these were not successful the patient fell into one of two classes—the malignant group and the semi-chronic.

Malignant Type of Anxiety (Psychorrexis)

The clinical picture was from the beginning somewhat anomalous: the patients showed anguish and perplexity rather than fear or excitement; they remained sitting or lying without any spontaneous activity, barely answered questions, except with "Yes" or "No," could scarcely concentrate, but were not very confused; the pulse rate was permanently above 120, and the respirations were

40 or more (in two cases I saw they were 75). At first sight they looked like overstrained dogs. The tendon reflexes were much increased; the cutaneous reflexes were exaggerated, but were more variable. No focal symptoms were observed. The urine was concentrated and extremely acid, with a peculiar smell.

At the end of the first week, sometimes even earlier, the temperature rose very quickly and the general state became worse. The tongue became ulcerated and blackish; the skin was slightly jaundiced, the abdomen tympanitic. The mental state changed: although the anguish remained, the patient became restless and exhibited an increasing number of automatic movements; carphologia appeared; sub-sultus tendinum and facial spasms, specially roused by touch, were observed. Death occurred after three or four days in fatal cases. Such cases could not be regarded as *delirium acutum*, because there was no delirium; neither could they be considered as "encéphalites psychotiques" (in the French terminology), because the cerebrospinal fluid was normal except that the pressure was always increased, and no focal symptoms were observed. In some, post-mortem examination showed swelling of the brain and even haemorrhages. Hence we used the term "psychorrexis" as a provisional word for statistical purposes.

TREATMENT

Various methods of treatment were tried. The small number of cases recorded (twenty-eight in Barcelona and about 100 in the whole territory—not more than 2 to 3 per cent. of all the psychiatric cases) did not permit of definite conclusions, especially as in the majority of those ending fatally it was not possible to get the aid of a pathologist and no necropsy was made. We first employed the treatment strongly recommended by French writers as being successful in cases of infectious psychosis—that is, intravenous injections of large doses of electrargol, rodiol, and other colloids. No definite effect was observed. The next treatment used was that of small doses of terebenthene, in order to produce three or four small focal abscesses, and adrenaline; this also was unsuccessful. Finally, we confined ourselves to symptomatic treatment and to intravenous injections of hypertonic solutions—magnesium sulphate 40 per cent., 15 c.cm., and cytotropin—and of small but repeated doses of lobeline. By this method three cases were relieved and cured: their catamnesia had disappeared, and after one month they were discharged completely recovered. There were, however, some in whom this treatment was unsuccessful.

PREDISPOSING CONDITIONS

It seems clear that certain conditions are necessary to produce this severe and new form of anxiety psychosis. So far as we have been able to discover, these conditions are: (a) a previous lability of the sympathetic system; (b) a sudden and severe mental shock experienced in conditions of physical exhaustion due to lack of food, fatigue, sleeplessness, etc.; (c) a long delay before starting the sedative treatment. Thus in all the cases that I can recall more than a day had elapsed before they were brought into the psychiatric clinic. Still another factor must be added: in almost all the cases signs of hypocalcaemia were observed; broadly speaking, the majority of them could have been included in the "lytic" type of personality (that is, employing Jaensch's typology).

The Semi-chronic Cases

These cases were drafted to one of the psychiatric hospitals on the outskirts of Barcelona, where physical exercises and occupational therapy were found to be the most

efficacious way of dealing with the persisting symptoms. Prolonged psychotherapy was not called for. In all neurotic cases, whether in the auxiliary services of the Army or the rest of the population, work was insisted on as a therapeutic and social duty. Medical officers in charge of these patients had wide powers of compulsion for the purpose. There were 3,000 psychiatric beds for the civil population in Barcelona, but these served for much more than the 1,600,000 people of Barcelona; they covered a population of some 3,000,000 people. At a rough estimate it may be said that two-thirds of these beds were occupied by the chronic insane.

The majority of the cases seen in the psychiatric hospitals were anxiety states, often of hysterical nature, characterized by trembling, shivering, inertia, and depression; in some there was continual restless activity, like that of senile excitement. In the Army one sometimes found that, after having been bombed all day, men who were now told that they could leave the line showed great lack of initiative and spontaneity. Sometimes restlessness and anxiety developed after an initial phase of relative calm. There was very little weeping or outcry, and hardly any hysterical amnesia. Where such symptoms as hysterical aphonia occurred physical measures were found adequate—for example, faradization and other suggestive treatment, or light ether anaesthesia. Where amnesia occurred in those near whom a bomb had fallen it generally turned out to be due to organic cerebral happenings, and in some cases was associated with aphasia. Headache always raised suspicion of increased intracranial tension. Lumbar puncture was performed on such patients, and indeed on every soldier coming from the front line with some mental disturbance. In this way increased intracranial tension, slight meningeal haemorrhages, and other significant findings could be recognized. In my clinic of 150 beds it was found necessary to perform about 500 lumbar punctures a month.

TREATMENT

The immediate treatment for acute anxiety was to put the patient to bed, and for about half an hour to employ reassurance by nurses, encouragement to lie quietly, breathe slowly, etc. If the patient improved, sedatives were then given. If he did not improve, injections of sodium luminal and hyoscine were employed to bring about gradual narcosis. For a mild case in which the patient weighed less than 65 kg., 7 cg. of sodium luminal and 0.5 mg. of hyoscine hydrobromide were given intramuscularly; for a more excited or a heavier patient the respective doses would be 10 cg. and 0.5 mg. Morphine was found unsuitable to quiet a patient, because it did not afford relief in acute anxiety and its use was difficult to control, many psychopaths and addicts taking advantage of the opportunity to get the drug. If the patient was weak or had cardiac symptoms, 0.2 mg. of digitalin would be given twice daily or as appeared appropriate, along with the injection of sodium luminal and hyoscine. Treatment was continued until the patient was asleep, but did not aim at profound narcosis. The majority of those being treated could be sufficiently roused to swallow their food. The average duration of treatment was seven days, but if the patient was improving the dose was reduced, usually on the fourth or fifth day. It was especially the cases with much tremor but no subjective feelings of anxiety that seemed to require treatment for longer than seven days. In one such case, which had at first been thought to be hysterical, the treatment had to be continued for twenty-two days before recovery was attained. If the treatment was prolonged for a fortnight or more ten units of insulin would be given daily to combat vomiting and

other toxic features. Usually during the first seven days the cases were divided into those who could go home and those who were still afraid or were developing new symptoms. The latter were transferred, as mentioned above, to outlying hospitals, where occupational therapy proved very effective.

In none of the cases mentioned above was psychotherapy found to be necessary. It is striking that after the war had been going on for some time the number of psychiatrists in Spain, though not by any means large, was found to be greater than the psychiatric demands of the population required, and consequently some of them were given ordinary medical and surgical work to do. It was found that systematic psychotherapy tended to do harm rather than good, particularly in the case of soldiers. When a man did not return to his post after a nervous breakdown his comrades were quick to notice it, and there was a tendency for more neuroses to appear. It was found preferable to send a man back to the line without being completely cured, if the measures outlined above were not effective; in such a case special instructions were delivered to the corresponding military physician. It was our experience that you can always fill your psychiatric beds, no matter how many you decide to have; the supply creates the demand. So far as the civil hospitals were concerned there was no inducement for hysterical patients to keep up their symptoms. Conditions in the hospital were no better than those elsewhere: there was no heating, the food was meagre, and amenities generally were, if anything, less than at home.

The majority of those admitted to the central hospital in Barcelona following air raids could, as stated, be discharged after a week, or at most a fortnight, of the treatment outlined above—that is, isolation, sedatives, and reassurance. They were sent back to their homes, and hardly ever reappeared in the clinic during subsequent raids. It may be inferred that, unless they were again actually confronted with the immediate results of a raid, they were not affected. Patients who had been discharged were advised to attend in the out-patient department of one or other of the hospitals. Few, however, did this, and where it was possible to inquire why they had neglected to attend, they said that they did not want to miss their place in the food queue, or that they did not want to risk injury from bombardment on their way across, or that they did not feel that there was any need for treatment.

It was also noteworthy that the group of neurotics, psychopaths, and mildly insane people who usually fill out-patient departments were not seen during the war. Most of the mildly insane were early in the war admitted to mental hospitals because their families were no longer able to look after them. Depressed and neurotic patients whom I had looked after in private found relief in working for some public service—for example, social work. There was no noticeable increase in the average rate of suicide. I had the impression that many depressed and other mentally ill people were better when confronted with the actual demands and situations that arose during the war than when they were concerned only with their conflicts.

Preventive Measures

The medical practitioners (apart from the psychiatrists, of whom there were about thirty-five in Barcelona) were supplied with accurate and regular information about the nervous symptoms that they might meet with, and the ways of treating them rapidly and efficiently. As a measure of mental hygiene all soldiers received a copy of a booklet. By these, and the avoidance of any

measures that would stir up alarm, "psychical contagion" was avoided, and I did not, during the whole time of the war, hear of any instance of panic breaking out in a large city. I have seen people at the cinema in Madrid come out on the balcony to bet on the nature of a shell as they watched the flash of its explosion. So far as propaganda went, it was found that direct measures were less efficacious than indirect reassurance of the population as a whole, and the suppression of terrifying rumours or facts. Some control of books, newspapers, and films proved necessary to this end.

A word may be said about the children. On the whole, they were more tranquil than the adults during air raids; either they did not realize the danger or they thought themselves protected against it. No special measures had to be taken to deal with children from the point of view of mental disturbance.

It is to be hoped that the above data will be of historical interest, and, if occasion should arise, of practical help to those who will be responsible for the treatment of the neuroses of warfare.

PARANOID PSYCHOSIS WITH ADRENO-GENITAL VIRILISM SUCCESSFULLY TREATED BY ADRENALECTOMY

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In *The Adrenal Cortex and Intersexuality* (1938) we describe a case (Case 13) of adrenogenital virilism with psychosis in which recovery from the psychosis followed adrenalectomy. At that time we were uncertain as to the relation of the adrenalectomy to recovery, since the case was not examined psychologically until after the operation. We now describe a similar case—that of a woman aged 34 suffering from hirsuties and a paranoid schizophrenic psychosis.

Family History of the Patient

Her father is alive, aged 65. He is a bad-tempered, obstinate man who is mean with his money. He takes little interest in his family and is indifferent to the patient. Her mother is alive, aged 61. She suffers from secondary deposits of breast cancer which has been removed. She is said to be dominant and to force her ideas on people, but is good-tempered. She has favourites, though the patient has never been one of them. The patient has two sisters and a brother. They are all normal except that the elder sister is dominant like the mother. In temperament they are easy-going and good-natured. None of the family suffers from adrenogenitalism or psychoses.

Personal History

The patient showed a more or less typical prepsychotic history. She was the "odd one out" in the family, and said: "I was always the awkward one. I quarrelled with

people. At school I disliked arithmetic, but liked history and won several prizes. I was looked upon as a slow plodder, but was always overshadowed by my sister, who was brilliant. Once my parents were sent for and told that either I would not or could not work." Her father disliked children, and they had to be sent to bed before he came home. In spite of the unhappy home she succeeded fairly well at school, but her parents moved before she could reach the top class. She left school at the age of 15 and entered the Civil Service as a telegraphist at the age of 16. She soon found that the life was not easy, and complained of symptoms of maladjustment. She developed telegraphist's cramp and had to be transferred to the sorting department. Then she had exophthalmic goitre, which was treated by iodine. A year later she passed as a writing assistant and the goitre disappeared. She was soon placed on machine work (which she disliked) and the goitre and the cramp reappeared. She noticed that the hirsutism which had started at the age of 14 became thicker at the reappearance of the goitre at 18, but she was given sunlight and diathermy, and was transferred to clerical work, the goitre and cramp then disappearing. She continued to do this sort of work, and remained well until she was promoted at the age of 24. She then came in contact with religion. Previous to this she had been fairly social, played tennis, attended dances, and disapproved of religion. She was converted by a clergyman who preached a sermon on *uncleanliness*. She said: "I could find nothing unclean in my life except theatres and dances, so I gave them up. But I was not happy: the hair was spreading." The office doctor sent her to a skin hospital, and she consulted a physician, who gave her mixed glandular therapy (thyroid, parathyroid, ovary, and anterior and posterior pituitary extracts). It was after this that she went on holiday, and whilst away started to feel that her body, however much she washed it, seemed unclean. At this time (six years ago) she felt that she was beginning to smell. During the following years she showed no improvement, and in fact started to perspire a great deal. This made her feel that people were talking about her in the street, and aural and olfactory hallucinations commenced. These mainly referred to her foul odour and hirsutism.

A year ago she came under Dr. R. D. Gillespie's care and was given psychotherapy by his assistant, Dr. Parsons. She was treated for some months, but showed no marked change, and was then sent by Dr. Gillespie to Charing Cross Hospital, although certification was considered.

Psychosexual History

She admitted that she had masturbated at the age of 6, but denied that she had done it since or worried about it. She felt attracted to boys at the age of 12, although her periods did not start until she was 16. This heterosexuality did not persist, since she had no love affairs, although when 21 a young man was attracted to her. After a dance she decided that she did not want him, and told him that she did not wish to go out with him. This was partly due to her feelings about her hirsutism; but her urge to marry could not have been very strong to have been diverted in this way. Someone told her that her voice was like a boy's after it had broken, and this caused a great deal of worry at this time.

She was very emotionally attached to a girl friend who was abroad, and remarked significantly, "She has a piece of me and I have a piece of her." Although she gave no very strong signs of being consciously homo-