

A PRELIMINARY INVESTIGATION INTO ABREACTION COMPARING  
METHEDRINE AND SODIUM AMYTAL WITH OTHER METHODS

By F. HOUSTON, M.R.C.S., L.R.C.P., D.P.M.,  
Assistant Psychiatrist to De La Pole Hospital, Willerby, Hull.

IN abreaction under any of the methods in use, a phase of cortical excitation is followed by a phase of temporary cortical inhibition with rupture of pre-existing patterns of conditioned reflexes and behaviour, a phase in which new modes of behaviour are easily adopted, the ultra-paradoxical phase (Pavlov, 1934). In this phase the patient is extremely suggestible, and this corresponds to psychological transference always found in post-abreactive states (Shorvon and Sargant, 1947).

An emotional discharge takes place during the period of excitation, the predominant reactions being fear or anger. If the patient is made to re-live through emotionally charged events which coincided with the onset of symptoms, chiefly of an hysterical nature, by first of all being encouraged to talk about these events and describe them down to the minutest detail in the present tense, and is then given a drug which diminishes cortical inhibition, those events become real to the patient. There is wonderful relief of tension and the symptoms disappear. It is not so important to release repressed memories as to produce a strong emotional display and the result is proportional to the emotional display (W. Sargant, 1948). The patient lives through the emotions experienced at the time of the conflict producing his symptoms. He sees the events happening and takes part in them. In some cases he even appears to be hallucinated both visually and auditorily in relation to these happenings. For example :

*Case 1.*

Following the fall of a bag of stone on his neck, the patient, a man aged 25, suffered concussion with a lapse of consciousness. After his discharge from hospital he had attacks of dizziness, blackouts, and headaches. Examination of the central nervous system and X-ray of the skull showed no abnormality. Under ether abreaction he wept copiously and without restraint though he couldn't give any reason for his weeping ; he just felt miserable and unhappy. His symptoms were relieved after this, but not gone. A course of electric convulsion therapy given because he was depressed caused a buzzing noise in his head but no further change in his condition. Under methedrine and sodium amyral technique, shortly to be described, he relived the accident. He showed extreme panic and terror shouting, " I can't move my legs. I'm useless. I'm no good." Then followed a period of relaxation and inhibition when all was quiet. He suddenly jumped off the couch extremely agitated, trembling and in great fear. He stated that he had actually seen his father's vision, and revealed strong feelings of guilt because he had quarrelled with his father and pushed him down three weeks before the latter's death. His father took to his bed, never spoke to the patient again, and died from phthisis. This happened a year before the accident. So strong was his feeling of guilt that at times of emotional stress he saw a vision of his father. This had apparently occurred at the time of his accident, which he considered as a form of retribution for having, as he believed, caused his father's death. After this abreaction he became extremely restless, agitated and panicky, and had to be put to bed and sedated. The next day he was able to recall everything he had said and got rid of all his symptoms, had peace of mind and wonderful relief of tension.

Ether gives a better abreaction than pentothal, though the latter is highly suitable for abreaction in battle anxiety states of acute and recent onset, and for releasing hysterical amnesias. But a better method is to use sodium amyral gr. 3 injected intravenously (the patient lying relaxed on a couch with the blind drawn). A state of clouding of consciousness with release of emotional tension takes place, and this is immediately followed, using the same needle but a different syringe, by methedrine 30 mgm. in aqueous solution intravenously (methedrine is precipitated by alkaline solutions). Then there is an onset of push of talk with flight of ideas, rapid pulse, rise in blood-pressure, and dilation of pupils. The patient can no longer voluntarily suppress valuable information as he can with ether or pentothal. Moreover he remains sufficiently conscious the whole time, and usually gives a more powerful abreaction with subsequent relief of emotional tension than with ether.

With the latter some of the material divulged is partly repressed and "forgotten" when the session is terminated, whereas with methedrine and sodium amythal the connection between this emotional conflict and highly significant somatic symptoms remains in consciousness. The patient is thus able to see his problems more clearly, and gains greater insight into his personality defects.

The superiority of methedrine abreaction to ether abreaction in hysterical conditions of fairly recent onset is illustrated by the following cases:

*Case 2.*

A tug-master aged 46 suffered from hysterical depression ever since he collapsed on the bridge of his ship and developed a hysterical paresis lasting for 3 weeks in 1944. He conversed freely about his unhappy childhood and feelings of guilt about sodomy committed with his wife; because she used a bad word during intercourse he lost all faith in her; he now has a phobia that he might strangle his daughter.

Under ether he was encouraged to talk about the War—he was mine-sweeping. He showed a fear reaction with sobbing and writhing about the bed shouting that he was a coward and no good, that he was blamed for not rescuing a man who had fallen overboard. After this abreaction his depression disappeared but he still felt he had to tell me more. He then mentioned a homosexual incident which had occurred when he was 12 years of age. Under methedrine and sodium amythal he gave a more powerful abreaction with fear and horror of the blitz on the Humber, the fear paralysing his right arm as he relived those terrible days on the bridge of his ship. Then followed an outburst of sobbing and crying as he described his disillusionment with his wife. He also revealed some extreme egotism and underlying paranoid trends, saying he was the best skipper in the world but that everyone was jealous of him. Since the treatment there has been considerable improvement, his phobias have gone and he has regained self-confidence, though he still remains obsessional about his wife.

*Case 3.*

An emotionally immature man of 38 with a mother-fixation complex suffering from a hysterical depression with anxiety, and complaining of being unable to have an erection with his fiancée. Under ether he abreacted with sobbing saying "there's something there doctor." Whatever it was it never became conscious. As a result of this he was relieved for 2 days, then he developed headaches, anxiety and depression again. He was so agitated that he was given prolonged narcosis, he made an excellent recovery and got married. He returned 5 months later complaining of weakness in his arms and legs and depression, though he ate and slept well. Under methedrine and sodium amythal he abreacted well, with thrashing of arms shouting and cursing at his father, who had returned home drunk and beat him when he was a little boy. He also revealed that his feeling for his wife was a psychological transference of his mother-fixation complex since his mother had died. After this abreaction his symptoms cleared up and with them asthma, which he has had for the past 2 years since his mother's death. It is interesting to note in this case that improvement resulted from prolonged narcosis. Could this be explained on the basis of his obsession about not being able to have an erection, by Pavlov's experiments in curing obsessional dogs with bromide?

*Case 4.*

A man aged 36 with an acute hysterical reaction originating since his discharge from the Army in 1945. He complained of headaches, irritability with his own children (is a male nurse in a children's hospital), fear of the dark since the War, and chronic constipation for two years. Under ether he gave a slight aggressive abreaction, and revealed how, whilst driving a taxi two years ago he had been forced by two ruffians to transport a stolen safe in his taxi. After this treatment his constipation disappeared and his irritability and anxiety diminished. Under methedrine and sodium amythal there was a subjective feeling of unreality as the drug was being injected, then marked push of talk with some clouding of consciousness and disorientation for time (he thought the treatment lasted for 4 hours, whereas it only lasted for  $\frac{1}{4}$  hour). His fear of the dark was traced back to the period of watching in the desert at night in 1943. There he was ambushed by Arabs (he had a violent aggressive outburst at this point). He shot it out and the Arabs fled, one having been killed. After this his remaining symptoms disappeared, and he lost his fear of the dark.

*Case 5.*

A man aged 52 complained of hypochondriacal pains and weakness in his legs, anxiety, and headaches. He had not worked since 1942, he also had chronic bronchitis. Under pentothal he did not abreact but revealed partially repressed material of the 1914-18 War. A shell exploded near him, he saw his comrades fall, started running, thought of throwing down his rifle but didn't, saw things as if through a mist, then his legs gave way

and he collapsed. This session produced a slight relief from his anxiety and headache, but the pains in his legs persisted. Under ether he showed a slight fear abreaction of the 1914-18 War. He also revealed an incident in 1940 when in the R.A.F. balloon barrage; he developed bronchitis at a period of great stress during the blitz, and the officer in charge told him that he had no sense of responsibility and would have to go. This made him feel useless, and that is why he has been in bed on and off ever since. Much sobbing and weeping followed this revelation. A trance-like state then ensued in which suggestion was utilized to remove his symptoms. There was temporary improvement, but the symptoms returned on the following day. Under methedrine and sodium amytal there was no abreaction, but push of talk and flight of ideas. There was a repetition of past events and a revelation of strong obsessional trends. That night the patient only slept two hours. The next morning he felt exhausted, depressed, had severe headache, and was much worse. He was then given a course of electric convulsion therapy and to our surprise all his symptoms cleared up.

This case illustrates that deep cortical inhibition which is present in a true endogenous depression with hysterical superstructure as in this case requires a deeper excitation to break down the faulty behaviour pattern. It is believed that electric convulsion therapy has this deeper stimulating effect (Gellhorn, 1946), and it is also a form of abreaction (Sargant and Shorvon, 1945). It is probable that in a patient with such a long history the symptoms will return despite treatment as they did in the case of Pavlov's dogs, which, he considered, was due to the pathological inertia of those with weak nervous systems. (Pavlov, 1934).

Why did this case give such a poor response to methedrine? There were strong obsessional trends present and Pavlov interprets obsessions as an abnormal predominance of the excitatory process in the cerebral cortex. An overstraining of the excitatory process produced by methedrine, whose effect lasts for several hours, is bound to aggravate the condition.

The next case shows the advantage of methedrine over ether for patients with pulmonary disease.

#### *Case 6.*

A man aged 40 who had suffered from asthma for 9 years, with no response to ordinary medical treatment. Under methedrine and sodium amytal he gave a violent abreaction, with maniacal excitement and aggression against the male nurses, using obscene language and calling them — Germans. He was living through the time when he tried to put out an incendiary bomb during the blitz, and was gasping for breath from the smoke which had been the trigger for his asthma; but what had upset him was that he had claimed to the neighbours that he could put out the bomb unaided, but had been unable to do so and thus felt that he had not spoken the truth. When his asthma persisted he had said to various people, "I'll give you £100 if you cure my asthma," knowing full well that he would not do so. He felt as though he had told a lie because if he said a thing he always liked to carry it out to the letter. His asthma was thus partly an obsessional symptom, but also signified repressed aggressive trends. During the treatment the patient spoke rapidly with flight of ideas, push of talk, protruding eyeballs, dilated pupils and rapid pulse. On examination after the treatment his asthma had gone. The patient remained elated and pranced up and down the ward to show how fit he was. He remained talkative and didn't sleep that night, but felt much relief of tension the next day and has remained free from asthma.

#### *Case 7.*

Case 7 produced an unsatisfactory response to treatment; it was a case of sudden onset of spasmodic torticollis commencing 6 months ago in a man aged 28 who had a good Army record without any breakdown in battle. Under ether it was revealed that the onset was related to strong frustration by the landlord of the flat in which he and his wife lived, and his feeling of hatred for this landlord. However, he is a tense, rigid, obsessional type of personality with no interests or hobbies outside his work, brought up in a church-going household, taught never to swear in his life. He did not abreact at all, either under ether or methedrine. Treatment with Parpanit, E.C.T. and prolonged narcosis produced no improvement. This is in keeping with the findings of Shorvon and Sargant, who state that strongly obsessional personalities do not abreact; they simply relate events in a matter-of-fact quiet sort of way, and their symptoms remain as deeply ingrained behaviour patterns, in keeping with Pavlov's concepts.

#### *Case 8.*

Case 8 illustrates some of the disadvantages of methedrine. This was a case of globus hystericus related to frustration of ambition, and feeling of resentment at his superiors (he was a naval gunnery inspector). After the session with methedrine he felt so elated and was so lacking in his usual reserve that he spoke to a girl near the bus stop outside the

hospital, said he couldn't wait for the bus, and would she walk with him. He then thumbed a lift, a thing he would never do normally. That night he didn't sleep, but sat up writing his life-history. This eventuality must be guarded against in treatment by methedrine by sedating the patient after the treatment is over and providing further sedation for the night-time.

#### SUMMARY.

An investigation is made into the results of abreaction with methedrine and a comparison made between it and other methods of abreaction.

This is illustrated by eight cases, and the technique of abreaction with methedrine and sodium amytal is described. Its advantages and disadvantages are discussed in the light of Pavlov's theories on conditioned reflexes.

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