

## NEUROLOGIC ASPECTS OF MALINGERING AND HYSTERIA

by

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Malingering and hysteria are a very important aspect of any neurologic assessment. Malingering is not a medical diagnosis, except under the rare circumstances in which a patient is caught in the act of producing a sign of disease or confesses to have done so. The term "malingering" refers to the conscious and deliberate feigning of illness or disability in order to obtain the desired goal. In my experience, it does not occur as an isolated phenomenon. Its occurrence must be interpreted as a sign of a serious personality disturbance, often one which prevents effective work or success in a career. There is a close similarity between hysteria and malingering, but the nature of the relationship is nebulous and sometimes difficult to separate the two. The main points of difference between the two conditions are as follows:

1. The conscious or unconscious quality of the motivation, which always seemed the more unconscious in the hysteric and more conscious in the malingerer. In other words, it appears that the malingerer seems to be more aware of what he or she is doing.
2. The influence of persuasion, which is usually effective in hysteria and not in the malingerer.
3. The attitude of the patient. The hysteric appears more genuinely ill and invites examination. The malingerer seems less ill and evades examination.

It has been noted that sociopaths have been found to have a tendency to malingering. Most of the more obvious cases of malingering have been sociopaths. In the malingerer, one can observe pain, hyperesthesia, anesthetics, limping gait, tremor, contracture, paralysis, amaurosis, deafness, stuttering, mutism, amnesia, epileptiform seizures, and fugue states, unexplained gastrointestinal bleeding, pains, and unexplained skin lesions. In my experience, almost anything can be seen in patients who are malingering and, similarly, in those who have hysteria. A particular form of sociopathy, or malingering which consists of deceiving the medical profession and which I have seen numerous examples of, has been described under the title "Munchausen's Syndrome." This was named after a 17th century German soldier, Baron von Munchausen, who invented incredible tales of adventure and daring.

The following characteristics are frequently seen:

Feigned severe illness of a dramatic and emergency nature, fictitious evidence of disease, surreptitiously produced by interference with diagnostic procedures, or by self-mutilation; a history of many hospitalizations, extensive travel or visits to innumerable physicians, evidence of laparotomy scars and cranial burr holes and evidence of multiple surgeries, pathologic lying, aggressive, unruly, evasive behavior, and, finally, departure from the hospital against medical advice. In these patients, unlike in the usual forms of compensation-related hysteria or malingering, an ulterior motive is not readily discernible. Psychopathology of this syndrome is quite obscure. It has been regarded as a form of sociopathy, malingering, and compensation hysteria, but the distinctions between them are too ambiguous.

In assessing the patient with hysteria and malingering, the encounter begins with obtaining a history or obtaining an explanation for the various problems. It is quite interesting that there is an apparent unwillingness or inability to face facts. The patient characteristically answers questions on the subject of his/her illness by giving not data or accurate information, but by giving conclusions, either of the patient himself/herself, or some kind of contorted history. An example of this is asking the patient, "When did the pain begin?" The patient, instead of giving a date or approximate date, the patient will say, "Well, I had adhesions and the doctor sent me to the hospital for x-rays, and I had surgery." When the interviewer, M.D., again asks the patient with hysteria, the patient again answers, "Well, I had this surgery for the pain." The patient will not give a specific time or date as to when the pain started. This kind of circular discussion may go on for a long time, and frequently the physician ends up without obtaining an adequate history. So that the very first instance or suspicion of hysteria, malingering, may occur in the very first part of the interaction between the doctor and the patient, mainly in taking the history. There is a roundabout way of answering questions without giving any definite answer to any specific question that the doctor may ask. It appears that the patient is unable to reason consecutively from cause to effect. It may be because, if the patient does so, it may necessarily destroy the psychologic makeup that the patient has invented. The multiple symptoms are a form of substitution for facing the facts or facing some kind of original difficulty.

It may be said that the hysterical patient never assimilates anything that cannot be voluntarily produced, which is a major finding. Hysterical patients

have episodes of symptoms resembling physical disease. These symptoms appear suddenly, rather than gradually, as typically seen in most conditions. Paralysis or anesthesia does not come by degrees, although the patient may "consider for some time before developing them." It is common for symptoms to appear during the examination because the hysterical patient is highly suggestible. This has certainly been my experience. In the episode, the patient never demonstrates a finding that is not voluntarily possibly produced. The patient may have paralysis of convergence of the eyes or of upward gaze (for example, the patient won't be able to look up), but should not have bilateral divergence strabismus, which is not possible voluntarily or a skew deviation, where one eye goes up and one eye goes down. Similarly, such things as rotatory nystagmus would not be seen in a hysterical patient or a malingerer.

The symptoms and the findings are always those which harmonize with the patient's concept of anatomy and disease. This useful fact is probably the most important aspect in the neurologic exam. Fortunately, the patients have not been trained in anatomy, neurophysiology, or neuroanatomy. Although many patients that I have seen have worked in doctor's offices for many years, over twenty years, and also have a regular library at home, they still are not completely familiar with the anatomic distribution of nerves and innervations of muscles and general anatomy. I would say that even those who are trained in medicine, by the time they have been in practice for many years, had actually forgotten the neuroanatomy and will give symptoms and findings that are not physiologically or anatomically possible. An example of a paralyzed limb is conceived of by most patients as also anesthetic, though an anesthetic limb is

not so commonly paralyzed. Most patient's conception of peripheral neuropathy or anesthesia is that up to a certain line, the lesion is complete. At that line, it becomes normal. There is no concept of gradation and various distribution of nerves with a variation in the distribution. For example, in the hand, there are at least three nerves that supply sensation so that the patient who has allegedly an injury to the hand, or peripheral injury, will claim complete anesthesia of the entire hand. But that would be very difficult unless all three nerves have been severed. Frequently, patients will give the impression that they have a glove-and-stocking sensory loss. Unless, they have a generalized peripheral neuropathy, this would be a very unusual presentation. Patients' concepts of the extent of a limb vary according to their experience. These concepts are probably developed over time as a child, and frequently will be based on limbs of animals or pictures that individuals may have seen in a book. The perineum in the anal region do not belong to any limb and, consequently, escape anesthesia of limbs and usually an anesthesia of the trunk.

It is this inconsistency between the patient's concepts and actual anatomic and pathologic distribution which differentiate a given sign or symptom as hysterical. The same principle applies to the reflex changes which should accompany a certain organic lesion. A flaccid limb with normal reflexes or a spastic one in contracture without increase in deep reflexes would not be an anatomic or physiologic finding. Hysterical muscular weakness ranges from a complete paralysis of the limb to moderate reduction in muscular power. In cases of moderate weakness, commonly encountered, the characteristic feature is the innervation of the antagonistic muscle. For example, when a patient, lying

in bed, is asked to flex the knee against resistance, the quadriceps can be seen, themselves, to contract simultaneously instead of, as normally, relaxing. Similarly, the attempt to dorsiflex the ankle evokes a simultaneous contracture of the calf muscle. A rather feeble and slightly tremulous grasp, characteristic of hysterical weakness of flexion of the fingers, is easily recognized. Hysterical muscular weakness is often associated with hysterical sensory loss, as mentioned before. The fact that there is no muscular wasting in patients who had prolonged weakness and "paralysis" of a limb bespeaks malingering and/or hysteria.

Specifically, in the examination, a useful test is to have the patient hyperextend the leg while in bed supine. With the legs outstretched, the examiner puts his/her hand underneath the heel of the limb that is being examined. The patient then is asked to press down hard against the hand. At the same time, the examiner puts his/her other hand underneath the other limb. Frequently, when an individual is trying very hard to press down, seemingly, the other leg will also be pressing against the bed. In a situation where there is no attempt to press down, the unexamined leg is found to have no effort applied to it also.

In evaluating patients with back pain, perhaps as a result of a job-related injury, I have found that the malingerer frequently, when distracted, will be able to move normally, but while attention is paid to his/her back, the patient will feign pain and decreased motion and inability to move. For example, when asked to bend over and touch his toes, the patient will frequently say that they cannot move any further because of pain and there is marked limitation at the lumbosacral area. However, when the patient is asked

to get up on a chair on his knees and a pen or pencil is put in front of him on the floor, the patient will frequently be able to reach over across the chair and pick up the pencil. Thus, by "distracting the patient" and asking him to do some functional activity, they are able to do it perfectly well. But, while focused on the back and the disability itself, the malingerer or hysteric will not be able to perform.

In sensory examination, frequently a patient will have a characteristic midline split of sensory loss. For example, in complete hemianesthesia of the entire body on one side, extending very neatly up the midline and including the midline of the face, patients do not realize that innervation of the face is through a cranial nerve rather than through other means. This lack of knowledge of anatomy and sensory distribution becomes very evident. Another useful test that I frequently use is the use of the Weber testing, which is holding a tuning fork, usually 218 Hz. to the middle of the forehead. Patients usually say that they can sense the vibration in the middle of the forehead. Patients with malingering and hysteria frequently will claim that the sensation is better heard on the left or the right side simply by moving the tuning fork slightly to the left or slightly to the right. In cases of hysterical sensory loss, the characteristic features are that its distribution corresponds to the patient's idea of a part of the body rather than to the anatomical supply of any part of the nervous systems. Hysterical anesthesia and analgesia are found in areas with sharp lines of demarcation, as mentioned before. These lines are demarcated from adjacent normal sensibility. They tend to vary in response to suggestions made by the examiner, and they do not in themselves lead to the disability which results from corresponding sensory loss of organic origin.

For example, a patient with hysterical loss of appreciation of posture and passive movement in a limb may be able to find it (that is their limb) without difficulty with the eyes closed or in the dark, and if it is not paralyzed to use it without incoordination. This, of course, is impossible when there is an organic lesion.

One of the most useful evaluations and impressive, striking findings in malingerers and hysterics are in cases of a feigned seizure disorder or a feigned coma. In a seizure disorder, patients who have had generalized convulsions, or complex partial seizures, or even limbic seizures, there will be characteristic features and, indeed, laboratory tests that may be useful. An elevated prolactin level, for example, in seizures can differentiate those from hysterical or malingering. Some patients develop a fugue state, which, of course, may turn out to be complex partial seizure with complex symptomatology or temporal lobe epilepsy. I would argue that a neurologic process should always be excluded.

The diagnosis of malingering or hysteria should not be made negatively or in the sense of prior to exhaustive investigations of the patient, but, rather, the diagnosis should be a diagnosis of inclusion rather than merely a diagnosis of exclusion. In a patient who has a hysterical trance or is malingering and is apparently unconscious, usually the patient is able to show some response to external stimuli. For example, an attempt to elicit the corneal reflex often causes a vigorous contraction of the orbicularis oculi. Rigidity of the hysterical type may be present. If so, any attempt, passively, to overcome the rigidity excites a proportional increase in the stiffness, which resists the



observer's efforts. Of course, signs of organic disease are absent in all of these patients.

Certain organic lesions, of course, such as multiple sclerosis, or demyelinating disease seem to predispose to the development of unusual symptoms which may be characterized as hysterical. It is dangerous to jump to a conclusion of hysteria or malingering prior to excluding such diseases. Other fairly rare diseases include porphyria and forms of vasculitis that may be confused because of the subtleties and unusual symptoms and findings. Tumors in the temporal lobes or parietal lobes may also produce, initially, at least, some unusual symptomatology that borders on hysteria. Because these patients who have hysteria are very susceptible to suggestion, it is very important to consider a wide differential diagnosis and arrive at a diagnosis of hysteria or malingering in a diagnosis of inclusion. Some patients say that they have loss of memory, especially after a head injury, perhaps at work. This often turns out to be hysterical or malingering in nature. Most often, patients who have hysteria or malingering will say that they have paralysis in one limb or a part of limb. It is rare, in my experience, that they have paralysis only in the face or tongue. The diagnosis of hysterical paralysis rests upon the following points:

1. There are anomalies of distribution. Since the paralysis corresponds to the patient's idea, there are inevitably discrepancies between the hysterical paralysis and that produced by organic lesions of the nervous system. The distribution of the weakness is often anomalous and paralysis limited to the movement of one joint is unknown in organic disease.

2. Contraction of antagonist muscles. It is very common in hysterical paralysis to find that when a patient attempts to move the limb, he/she contracts the antagonistic muscle as well as the prime movers. For example, if he/she is asked to flex the lower limb, the quadriceps is felt to contract. Antagonistic contract is absent only when the paresis is so great that the prime movers hardly contract at all.

3. Muscular wasting and contracture is absent, except in cases of longstanding in which these phenomena may supervene upon the prolonged muscular inactivity. Of course, testing such as EMG and nerve conductions are always normal. It is striking to see an individual who says that they cannot use their leg and have total analgesia and anesthesia for a period of years and to find that the individual has normal reflexes, no atrophy, and, when the examiner is not looking, is able to move the leg perfectly well.

Reflexes are very useful, because they are objective. Extreme muscular rigidity, however, may make the tendon reflexes difficult to elicit. But if adequate muscular relaxation can be obtained, they are never asymmetrical and never diminished in these patients. The same is true of the abdominal reflexes, and the plantar reflexes are flexor.

Hysterical disorders of gait may be associated with hysterical paralysis of one or both lower limbs. An hysterical gait is usually easily recognized on account of its bizarre character and its dissimilarity from any disorder of gait produced by organic disease. There is often a tendency to fall, especially when other patients are present, or family members, or the doctors. But the fall does not lead to injury. In severe cases of hysteria or malingering, there is complete astasia-abasia. A patient with hysterical

abasia is always more difficult to support, frequently requiring four or five people, than a patient of normal mentality whose difficulty in walking is due to organic disease. I have always been impressed by the malingerer and hysteric who is so theatrical in their ability to walk and who frequently drag three, four, five, or six people on their way, but never really falling and always managing to land in a soft chair rather than on the floor. Although, on occasion, I have even seen patients fall to the floor and, occasionally, actually hurting themselves and not voluntarily, of course.

Hysterical rigidity may be localized to a paralyzed limb or generalized. It is distinguished from all forms of rigidity, due to organic disease, by the fact that it increases in proportion to the effort made by the observer to move the rigid part. Tremor is a common hysterical involuntary movement. And, of course, tremor is often associated with hysterical paralysis. It is increased when attention is directed to it and may be absent in movements carried out when the attention is distracted.

I mentioned before about the sensory findings on the physical exam. When cutaneous sensibility is lost over the peripheral part of the limb, the anesthetic area is demarcated from the area of normal sensibility by a sharp, upper border and encircles the limb and often coincides with the joint. Sensation may be lost over one-half of the body. In such a case, there may be loss of smell and taste on the same side. Hysterical sensory loss is distinguished from that due to organic nervous disease by failure to correspond with the distribution of the loss resulting from lesions of the sensory tract, spinal segments, or peripheral nerves. Moreover, hysterical patients often exhibit striking discrepancies in their sensory symptoms which are incompatible

with an organic origin. For example, coordination may be perfect in spite of complete loss of postural sensibility and appreciation of passive movement in a limb. Hysterical sensory loss can readily be produced and modified by suggestion. Hysterical deafness may disappear during sleep so that the patient can be aroused by sounds and a blinking reflex and auditory stimulation may be retained by the hysterical deaf. Of course, nowadays, there are studies that can be done in the laboratory including very sophisticated audiologic studies and brainstem auditory evoked responses to show that hearing is intact. In terms of sensation, somatosensory evoked responses may also be useful to document normal sensation, or at least normal sensory pathways. Hysterical blindness may be unilateral, bilateral. It may be complete or it consists merely of a reduction of visual acuity. In hysterical blindness, the optic discs and pupillary reactions are normal. It may be possible to evoke blinking by a sudden feint with the hand towards the eyes. Or the blind hysteric may avoid obstacles in his paths. Various ophthalmological tests have been devised to detect hysterical blindness. Frequently, a patient with hysterical vision problems or malingering will say that they are able to see only as if they are in a tunnel. Globus hystericus is sense of constriction, or a lump in the throat, is a common complaint. Some patients with hysteria, of course, hyperventilate and this may lead to tetany. The patients who are malingering may have abnormal fevers and skin lesions that are self-induced.

Pain is one of the most common symptoms. Head pain is probably the most common symptom in hysterical pain. In patients who are feigning coma or loss of consciousness, frequently a neurologic exam will reveal that this is malingering or hysteria. For example, in patients who are "unconscious,"

elevation of an arm and then letting go in the air will almost always never actually strike the patient's face. But, rather, there will be a quick movement of the hand away from the face down to the side of the bed. I have observed this on numerous occasions. Of course, also, the various reflexes, such as corneal reflexes and gag reflexes, will frequently wake up the malingerer.

The whole issue of seizures, I have touched upon prior; is a difficult one. A person who has had experience with seizures, such as a physician or nurse, may feign a seizure almost perfectly. Also, there is a condition called "pseudoseizures" in which individuals have real seizures as well as hysterical seizures. Throughout history, in the literature, seizures and hysteria or malingering have been mentioned on several occasions. Note, for example, in Sherlock Holmes, which was written by a physician, Arthur Cronin Doyle, by far the most interesting of seizures concerned Sherlock Holmes, himself, in the book called The Reigate Squires, Watson, the doctor, is fooled and describes the following:

His face had suddenly assumed the most dreadful expression. His eyes rolled upwards, his features writhed in agony, and with a suppressed groan, he dropped on his face upon the ground. Horrified by the sudden and severity of the attack, we carried him into the kitchen where he laid back in a large chair and breathed heavily for several minutes.

In the story, Holmes' "seizure" had been a trick device to avert attention from a suspected criminal and had successfully fooled even Dr. Watson, who conceded, "Speaking professionally, it was admirably done." Sometimes when a patient is engaged who happens to have malingering or hysteria a true diagnosis, but has had a seizure, a general physical exam may be very useful

such as evaluating the patient's pulse, temperature, muscle tone, and reflexes, which are usually unchanged in a hysterical seizure.

In summary, the diagnosis of malingering, hysteria, Munchausen's syndrome, etc. can be made, and must be made, on a basis of a diagnosis of inclusion rather than a diagnosis of exclusion. It behooves the neurologist to exclude a fairly wide assortment of diseases and conditions in his differential diagnosis prior to arriving at a diagnosis of hysteria or malingering. However, just as much damage may be done to a patient and his/her family if an organic diagnosis is made and the patient really has hysteria, or if the patient has malingering, or has Munchausen's syndrome.

Appropriate history taking, general physical exam and specific neurologic exam must be made, together with appropriate neurodiagnostic studies and laboratory assessment prior to reaching a conclusion. The ability to diagnose malingering, hysteria, and other such conditions is developed gradually by a physician and frequently requires many years of experience and exposure to thousands of patients in a busy clinic, office practice, or hospital setting. The diagnosis of malingering and hysteria should not be made lightly. Unfortunately, there are not any good therapies, except for psychiatric evaluation and trying to achieve some kind of understanding and insight oriented analysis. Frequently, the malingerer and the patient with Munchausen's syndrome will find another unsuspecting physician and will lay in wait to seize the opportunity to engage the usually young, naive health care provider physician.