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Review Article

Factitious disorders presenting as acute emergencies

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Introduction

Factitious illness can produce considerable diagnostic and therapeutic problems. This is related to the dramatic and often convincing presentation with acute illness which demonstrates atypical responses to, or refractoriness to, standard therapy. Also, doctors are unlikely to diagnose factitious illness until all other diagnostic possibilities have been exhausted. It is highly likely that the true incidence of factitious illness is underestimated,[1] partly as doctors are generally unwilling victims of deception.

The term Munchausen syndrome was applied by Dr Richard Asher to a group of patients who had attended several hospitals with multiple acute problems, often treated surgically[2] (see Table I). He described three emergency presentations: the acute abdominal type (laparotomophilia migrans), the haemorrhagic type and the neurological type. Subsequently, Professor Roy Meadow described an entity of factitious illness in children, where usually the mother was involved in giving good descriptions of, or simulating acute illness requiring medical therapy[3] (see Table II). Such children were often hospitalized and subjected to unpleasant diagnostic and therapeutic measures. It has since become apparent that the condition is far commoner than initially suspected.

Factitious illness is well delineated in the Diagnostic and Statistical Manual of the American Psychiatric Association.[4] Two categories are recognized with physical symptoms or with psychological symptoms. It is stressed that all other possible causes of the presenting symptom or sign must be considered before arriving at the diagnosis. Diagnosis is made difficult by the fact that factitious physical symptoms can coexist with or reinforce the effects of genuine physical illness.

Factitious illness must be distinguished from malingering and from conversion disorder. In contrast with malingering, there is no obvious gain, either economic or social, to the patient from factitious illness, and indeed often considerable discomfort. The conscious production of symptoms by the patient distinguishes factitious illness from conversion disorder. Patients with factitious illness may often preserve a relatively normal demeanour with no apparent psychiatric dysfunction, adding to the effectiveness of the deception.[5]

This review outlines factitious symptoms that may present as acute emergencies and produce physical symptoms or signs. The clinical, and where relevant, biochemical features are discussed.

Table I Features of Munchausen's syndrome

Male
Low socio-economic class
Acute simulated illness
Dramatic presentations
Arrival late at night
Unaccompanied: no next of kin; distant address
Hospital hopping
Often plausible medical history
Multiple prior surgical procedures (for example, laparotomy, cut-downs)
Disruptive behaviour
Acceptance of painful and invasive procedures
Pathological lying
Self-discharge against medical advice
Occasionally drug addiction/criminal record

Table II Features of Munchausen by proxy

Preschool child usually
Mother perpetrator
Father usually unconcerned
Failure to thrive
Apparently attentive and dedicated mother
Fabricated symptoms
Surreptitious drug administration
Unusual biochemical tests
Bizarre signs and symptoms unlike any recognizable illness
History of unusual illnesses/deaths in siblings

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Some of these syndromes will be familiar to those with long experience of working in accident and emergency departments.

Neurological symptoms

Pseudoseizures

'Hysterical seizures' were well described by Charcot at the Salpetriere Hospital in Paris in the late 19th century. It later became clear that feigned seizures could be associated with a variety of personality types. The term pseudoseizures was first used by Liske and Forster,[6] although non-epileptic seizure may be a better term.[7] It has become increasingly clear that patients with apparent refractory epilepsy referred to tertiary neurological referral centres often turn out to have pseudoseizures.[8,9] This has usually been confirmed by intensive monitoring including combined ictal electroencephalography and video tape recordings of seizure activity.[10,11] In one series of 36 patients with refractory status epilepticus seen in one centre, 13 were found to be suffering from pseudoseizures.[8]

Pseudoseizures can be usefully classified into four categories:[12]

1. Bilateral motor seizures.
2. Unilateral motor seizures.
3. Multiple phenomena including complex behaviour simulating epileptic automatisms.
4. Reduced response to verbal stimuli without significant sensory, motor or some purposeful phenomena.

Bilateral motor seizures are the most common type of pseudoseizure and are often mistaken for grand mal seizures. Diagnostic difficulty may be caused by the fact that pseudoseizures can complicate genuine epilepsy.[13,14] These motor seizures are often crude approximations to true tonic–clonic seizures. They are often produced by unusual precipitating factors[6,15] and always occur in the presence of an audience. Consciousness and the ability to speak are preserved with bilateral motor seizures. The seizure can often be terminated by suggestion. Bizarre motor activity including pelvic thrusting and catatonic posturing may be demonstrable. Ictal phenomena that are not useful in the distinction from genuine seizures include tongue biting and incontinence of urine, both of which can be feigned.[16] Post-ictal features such as headache and confusion are lacking and the patient almost invariably makes a dramatic recovery from the seizure. The attacks lack the stereotyped nature of true seizures and the motor features can vary considerably from attack to attack. In spite of the atypical features, recognition is, however, usually delayed. Lack of rise in serum prolactin levels following a seizure may be helpful in the diagnosis.[17] Refractoriness to standard parenteral anticonvulsant therapy puts the patient at risk of iatrogenic respiratory depression and anti-convulsant toxicity as increasing doses of anticonvulsant agents are used to terminate the seizure.[18] A false story of epilepsy may also be furnished by a mother as part of the syndrome of Munchausen by proxy[19] leading to repeated hospitalization, multiple investigations, anticonvulsant therapy and restriction of activity.

Pseudocoma

Pseudocoma (feigned unconsciousness) can often be realistic enough to lead to the patient being paralysed and ventilated.[20] Among the clinical features noted in a study of six pseudocomatose individuals was complete unresponsiveness to any painful stimulus, with preservation of quiet breathing and normal pupillary, corneal, tendon and plantar reflexes.[21] This was associated with spontaneous flickering of the eyelids and resistance to attempts to passively prise apart the eyelids. In these patients, electroencephalographic desynchronization in response to external stimuli was taken as an indication of normal cortical functioning.

Specific eye signs have also been described in patients feigning unconsciousness.[22–24] Persistent downward deviation of both eyes irrespective of patient posture is a feigned response, incompatible with any known pathological oculomotor lesion.[22] Also, it has been noted that in persons pretending to be unconscious attempted passive eyelid opening leads to upward rolling of the eyeballs and gaze avoidance – an exaggerated form of Bell's phenomenon.[24]

Factitious paralysis

Monoplegia, hemiplegia, paraplegia and tetraplegia have all been successful simulated. The features of factitious muscle weakness are well described in a review of 14 patients with simulated paraplegia and tetraplegia seen in three London neurosurgical units.[25]

In this series it was noted that the weakness was often variable and inconsistent. There was no obvious physical explanation for the paralysis, which often followed minor trauma. There were no alterations in muscle tone or tendon reflex activity. The affect of the patient was often inappropriate to the extent of weakness. No sphincter disturbance occurred. In chronic cases there was no evidence of muscle wasting or contractures, trophic changes, or pressure sores. Sensory levels were non-anatomical, not conforming to any specific dermatomal loss. The authors noted rapid improvement in many instances with hypnosis, reassurance or

amytal abreaction. It has been suggested that somatosensory evoked potentials may be used to confirm intact spinal cord function in such patients.[26]

Acute severe headache

Acute headache simulating subarachnoid haemorrhage[27] or meningitis[28] has been reported. As these are illnesses with a high morbidity and mortality, one must err on the side of caution. In the absence of knowledge about the patient's antecedents, standard diagnostic protocols must be followed.

Metabolic emergencies

Metabolic emergencies can be easily simulated by the surreptitious administration of metabolically active agents, especially hormones. These emergencies usually occur in individuals with a medical or paramedical background (nurses), and in patients (and their relatives) requiring hormonal therapy. Manipulative attention-seeking adolescents with diabetes mellitus form a large proportion of those in the latter category.

Factitious hypoglycaemia

Factitious hypoglycaemia is well documented in the medical literature. This may be produced by self administration of either insulin or sulphonylureas. Patients are typically health care professionals (especially nurses), insulin-dependent diabetics, or close relatives of diabetics. In earlier cases of factitious hypoglycaemia, recognition was facilitated by the detection of anti-insulin antibodies in the plasma.[29-31] This was because of the antigenic nature of bovine and porcine insulins then in use. This test was thus unreliable in diabetics already treated with insulin and was complicated by the fact that a genuine insulin auto-immune syndrome was found to occur.

A useful test to detect surreptitious self administration of insulin was to inject a radioactive tracer (for example, iodine-131) into ampoules of insulin found on the person of the patient and then to detect the tracer on the patient's urine. This test depended on deceit by the doctor in the unlikely event of discovering the ampoules on the patient.

C-peptide is secreted by beta islet cells of the pancreas in equimolar amounts to insulin. The association of low blood glucose, high immunoreactive insulin and low C-peptide activity in the plasma was thus recognized to be pathognomic of exogenous insulin administration.[32,33] The differentiation of sulphonylurea-induced hypoglycaemia from insulinoma is, however, much more difficult as C-peptide activity is not suppressed.[34-36] Specific chemical assays for the drugs is necessary and requires a high index of clinical suspicion.

Whether factitious or not, the initial treatment of hypoglycaemia is standard, with oral or parenteral glucose replacement a priority. In all instances of recurrent hypoglcaemia of obscure cause a period of hospitalization to document the occurrrence of hypoglycaemic episodes under strictly controlled conditions is necessary. The discovery of oral hypoglycaemic tablets or insulin ampoules in the patient's possession may be helpful.

The syndrome of brittle diabetes mellitus

A syndrome of brittle metabolic control with multiple hypoglycaemic and ketoacidotic episodes and wide fluctuations in blood glucose level is well documented.[37,38] It is possible that this syndrome is often produced factitiously by metabolic manipulation. Failure to duplicate the syndrome under rigidly supervised conditions may aid in the diagnosis. A variety of methods of interfering with treatment have been described and reflect on the ingenuity of the patients involved.[39]

Pseudo-phaeochromocytoma

Phaeochromocytoma presenting with paroxysmal symptoms of sweating and palpitations associated with hypertension can be mimicked by the exogenous administration of catecholamines.

Certain features suggest factitious illness. Pure adrenaline secreting phaeochromocytoma is distinctly unusual.[40] Varying ratios of adrenaline to noradrenaline in different urine samples suggests metabolic tampering. MIBG scanning has 100% specificity in diagnosing phaeochromocytoma and can be used to exclude the diagnosis.[41]

Adrenaline has even been reportedly added directly to the urine on the background of factitious symptoms.[42] Further sophistication has included self-administration of isoprenaline, along with lignocaine to prevent ventricular ectopic beats.

Cardiac emergencies

Most accident and emergency specialists are familiar with patients who fake chest pain suggesting myocardial infarction or unstable angina but there is gross underreporting as it is not a problem that lends itself to easy documentation.[43-46] As, in myocardial infarction, physical examination and the electrocardiograph are often normal in the early stages, fake myocardial infarction is a difficult diagnosis to make at presentation. However, specific requests for narcotic analgesia are always to be treated with suspicion.

As technical sophistication in medical practice increases, so does the sophistication with which individuals fake illness. Various cardiac arrhythmias have been produced by surreptitious manipulation of electrocardiographic monitoring leads. Among recently described cases are those of patients with paroxysmal ventricular tachycardia,[47] bradycardia with syncope leading to pacemaker implantation[48] and atrial flutter with variable atrioventricular block.[49] The latter patient was unusual in making specific requests for cardioversion and was indeed noted to have skin burns from recent cardioversion performed elsewhere.

The likelihood of iatrogenic complications is high in the presence of feigned acute cardiac illness. Thus cases have been reported of patients subjected to repeated cardiac catheterization leading to thromboembolic episodes and limb gangrene warranting amputation.[50,51]

Respiratory emergencies

Syndromes of factitious asthma[52,53] and of upper airway obstruction presenting with stridor[54] have been reported. These illnesses are characterized by lack of arterial hypoxaemia in conjunction with normal pulmonary function. For practical purposes, these syndromes are rare and largely diagnoses of exclusion.

Cases have also been reported of feigned massive haemoptysis.[53,55] In one instance, the patient was submitted to thoracotomy and lung resection on two separate occasions.[56] Lack of haemodynamic disturbance with major bleeds, demonstration of alternative sources of bleeding, (for example, oral self-induced lesions) and failure to visualize actual episodes are useful diagnostic pointers. In general, however, it is diagnosis by exclusion.

Abdominal emergencies

Acute abdominal pain is a relatively easy symptom to simulate. As no unequivocal clinical, laboratory or radiological investigation is available for the majority of common causes of the acute abdomen, deception can be successfully maintained for days on end. Repeated exploratory laparotomy may lead to the typical grid iron abdominal wall, with multiple intersecting abdominal scars. Diagnostic difficulty is compounded by the higher likelihood of adhesive intestinal obstruction complicating polysurgery.

Renal colic is a symptom that is commonly feigned. The deception may be sustained by addition of the patient's own blood to the urine or by a self-inflicted bleeding urethral wound. Furthermore, the patient may produce renal 'stones', the true nature of which is detected on chemical analysis.[57,58]

In the presence of suspected renal colic one must be wary of specific requests for narcotic analgesics, especially when non-steroidal anti-inflammatory agents are licensed for the same purpose. In practice, offers to confirm the diagnosis by emergency intravenous urography usually cause the patient to take self-discharge. Indeed, well-educated individuals may claim allergy to iodinated contrast media to forestall this possibility.[59]

Discussion

Factitious illness is under-reported and under-recognized. In unusual clinical problems and often in acute illness with dramatic and bizarre presentations, strong consideration must be given at an early stage to the possibility of factitious illness. This will minimize unnecessary and expensive investigation, treatment and hospitalization, and eliminate the risk of iatrogenic complications. It will furthermore avoid reinforcement of the manipulative attention-seeking behaviour of the patient. Indeed, in some instances a positive clinical diagnosis of factitious illness may be made with confidence.

The psychodynamics of patients with Munchausen's syndrome are well described in several articles.[60–62] In many instances a background of childhood neglect or abandonment can be identified. Common recurring themes are the need to assume a dependent status, a desire to be the centre of attention and a masochistic tendency (suggested by the willingness with which painful therapies are accepted). A variety of personality disorders may coexist with Munchausen's syndrome, including histrionic, schizotypal, borderline, antisocial and masochistic types. Most authors suggest a sympathetic attitude and a non-judgemental approach, gently confronting the patient with the fact that the deception has been discovered. Psychiatric help must be offered, although this usually leads to self-discharge.

The prognosis is usually poor. Only one case of successful treatment has been reported and that too after prolonged therapy.[63]

It is more than likely that doctors of all grades of seniority will continue to be deceived by the varied manifestations of factitious illness. The spectrum of presenting illness will undoubtedly continue to expand. Early recognition of some of the characteristic clinical presentations of factitious illness will hopefully minimize the risks of continued investigation and treatment of these individuals for presumed physical illness.

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