

Cardiopathia Fantastica: The Cardiac Variant of Munchausen Syndrome

Ted A. Park, MD, Mark Andrew Borsch, MD, Allen R. Dyer, MD, PHD,
and Alan N. Peiris, MD, PHD

Abstract: Munchausen syndrome is a rare condition in which the patient repeatedly seeks medical care for factitious illnesses. Cardiac Munchausen syndrome was first reported in 1953 and later referred to as *cardiopathia fantastica*. It is characterized by clinical manifestations of acute cardiac disease that are feigned and recurrent. *Cardiopathia fantastica* can have a variety of presentations similar to true cardiac disease. Most cases have presented with chest pain simulating acute coronary artery disease, but arrhythmias, hypertensive crises, abnormal biochemistry, and electrocardiographic findings have also been noted. These patients are willing to undergo expensive, invasive, and risky procedures to evaluate their simulated illness. This condition is likely to be significantly underreported. In some patients, the presence of abnormal findings that are clinically insignificant may complicate the investigative approach. Patients with this disorder consume a disproportionate amount of health care dollars and sometimes are left with residual deficits as complications of invasive procedures. In this review, we discuss the recognition, manifestations, and treatment of *cardiopathia fantastica*.

Key Words: *cardiopathia fantastica*, factitious disorder, Munchausen syndrome, somatoform disorders

Symptoms or signs that are intentionally produced or feigned by the patient in the absence of apparent external incentives characterize factitious disorders. Richard Asher coined the term *Munchausen syndrome* (after the fabled Baron Von Munchausen) in 1951¹ to describe a group of patients

with factitious disease. The classic modes of presentation were neurologic (neurologic diabolica), abdominal (laparotomia migrans), and hemorrhagic (hemorrhagica histrionica). Many other presentations have been since described, including lithiasis nephrologica.²

Cardiac Munchausen syndrome was first reported in 1953³ and later was dubbed *cardiopathia fantastica*. Chest pain, arrhythmias, hypertensive crises, and other manifestations of cardiac dysfunction are among the most prevalent conditions presenting to the emergency room. Up to 20% of patients attending an emergency department complain of chest pain, but only approximately 25% of those patients are proven to have myocardial infarction (MI).⁴ The majority of these people undergo an extensive and costly workup, which is not without risk. It is likely that some of these patients may have *cardiopathia fantastica*. Cardiologic manifestations are particularly attractive to patients with Munchausen syndrome be-

Key Points

- Cardiologic manifestations are particularly attractive to patients with Munchausen syndrome because of the prompt and intensive interventions associated with this specialty.
- The cost for negative inpatient cardiac evaluations has been estimated to be \$6 billion in the United States each year. How many of these patients are represented by factitious cardiac disease is undetermined, but the cost savings of identifying these patients has a large potential impact.
- Patients with *cardiopathia fantastica* are willing to undergo incredible hardship, limb amputation, organ loss, and even death to perpetuate the masquerade.
- Routine, brief, supportive office visits should be scheduled at regular intervals to provide reassurance and prevent patients from “needing to develop” symptoms to obtain care and attention.
- Cases involving factitious disorders may enter the civil legal system in a number of ways and cause incorrect judgments, financial costs, and inappropriate medical care if these disorders are not identified.

From Medicine Service, Mountain Home Veterans Affairs Medical Center, and the Departments of Internal Medicine and Psychiatry and Behavioral Science, James H. Quillen College of Medicine, East Tennessee State University, Johnson City, TN.

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Reprint requests to Alan N. Peiris, MD, PhD, Department of Internal Medicine, James H. Quillen College of Medicine, East Tennessee State University, Box 70622, Bldg. 1, Room 1-04, Johnson City, TN 37614-1709. Email: peiris@etsu.edu

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cause of the prompt and intensive interventions associated with this specialty. Factitious cardiac disease may increase as the public becomes more knowledgeable regarding manifestations of cardiac disease through multiple sources, including the Internet. Moreover, the ability to detect factitious disease may become harder with increasing sophistication of patients mimicking cardiac symptoms. Patients may use alternative medicine remedies with cardiac effects to induce disease. Awareness of the possibility of factitious cardiac disease may prevent unnecessary, recurrent, costly, and hazardous investigations.

Clues to Cardiopathia Fantastica from the Medical History

The presentations of cardiopathia fantastica have as much variety as true cardiac disease. The person usually gives a plausible and dramatic history. The patient tends to go from hospital to hospital feigning cardiac diseases and giving false and grandiose information about their medical and social background. Personal details usually follow a clear pattern with a detailed history including specifics about previous diagnostic procedures. For example, the patient usually has information on specific vascular blockages, ejection fraction, or other types of technical information. The official results of these procedures are almost always unavailable. All had next of kin that were unavailable for a variety of reasons such as no phone access, on holiday, or not to be contacted. Many patients will claim to be professionals with high-paying or glamorous jobs. In one instance, the patient claimed to be a nuclear physicist with an additional degree in philosophy. Investigation revealed that the patient had only a high school education.⁵

Clinical Presentation

Chest Pain

By far the most common presentation is chest pain. Pain and other subjective presentations are attractive to patients with factitious disorders because there is no good way to validate their symptoms. In a review of 36 cases of cardiac Munchausen syndrome, the most common presentation was chest pain simulating myocardial infarction (35 cases).³ These patients sometimes undergo extensive workup with high risks. One report documents placement of an intra-aortic balloon pump for apparent angina refractory to multiple medications.⁶ They may have scars from previous cardiac workups.

Most cases of cardiopathia fantastica have diagnostic results that are negative, but some have documented positive results on electrocardiography and biochemistry. A patient presented with chest pain, ST elevation, and an elevated creatine phosphokinase. The patient was treated with tissue plasminogen activator and admitted to the hospital. Subsequent investigation revealed prior admissions to other institutions

with similar presentations. The ST elevation in the precordial leads had also been noted previously. The patient had rudimentary knowledge of biochemistry and had deliberately injured himself to raise his creatine phosphokinase.⁴ In another case, with an electrocardiogram consistent with acute MI, the patient underwent multiple cardiac catheterizations at multiple health care facilities,⁷ all of which were interpreted as normal. The patient eventually had a cardiac catheterization in a community-based hospital that was interpreted as having a 75% blockage. The patient then underwent a single-vessel bypass that in retrospect was not considered necessary.

Cardiac Arrhythmia

Arrhythmias have been noted as one of the findings in some patients with cardiopathia fantastica. Some patients have been found tampering with electrodes on Holter monitors and electrocardiographic devices to simulate arrhythmias. A patient attempted to mislead the staff by simulating ventricular tachycardia and stating prior cardioversion for this arrhythmia.⁸ The patient requested the same treatment for his condition. After the rhythms were noted only after physicians were entering or leaving the room, close monitoring indicated that the patient would manipulate his chest leads before the appearance of the apparent tachycardia.

Hypertension

Manipulation of physical findings including blood pressure measurement have been noted. In one reported case, the patient presented with hypertension refractory to several medications.⁹ The patient's blood pressure varied from 95/60 to 240/170 mm Hg. After several paroxysmal hypertension readings, the workup for pheochromocytoma was pursued and found to be negative. Further investigations revealed that the patient was using the Valsalva maneuver to raise her blood pressure. In a similar case, a patient had elevated plasma catecholamines from excessive Valsalva maneuvers with elevated blood pressure.¹⁰ A small study performed on four subjects did demonstrate an increase in catecholamines with Valsalva but no change in plasma chromogranin A.¹⁰ Plasma chromogranin A seems to be less responsive to acute perturbations in physiologic sympathoadrenal outflow than do plasma catecholamines.¹¹ Patients with cardiopathia fantastica usually do not demonstrate elevated urine catecholamines.

Another case suggestive of pheochromocytoma had positive laboratory values and positive octreotide scintigraphy.¹² Removal of an adrenal gland was performed (found to be normal) and symptoms resolved for a brief time. Further investigations revealed high concentrations of catecholamines in the left iliac vein. It was discovered that the patient, a nurse, had been injecting catecholamines intravaginally even during the angiographic investigations.

Another drug that has been used to deliberately elevate blood pressure is pseudoephedrine.¹³ Cases of hypotension

have also been reported with patients taking amyl nitrate (widely available on the street). A pronounced and short-lived hypotension with reflex tachycardia may be noted.¹⁴

Financial Impact

There are more than 5 million annual visits to emergency departments (EDs) in the United States for acute nontraumatic chest pain, resulting in 2 million hospital admissions at a cost of \$6 billion.¹⁵ A coronary event is confirmed in less than one-third of these patients. A low threshold for admission has also been supported by a 2 to 10% rate of missed MI or unstable angina. Furthermore, failure to diagnose MI has been the leading cause of malpractice awards against emergency medicine physicians.¹⁶ Thus, management of low-risk patients presenting with chest pain has been neither clinically optimal nor cost-effective. The need for a safe, more efficient approach is thus apparent. A fundamental aspect of this concept is the ability to recognize low-risk patients with chest pain on presentation to the ED. More than one-half of ED patients with chest pain have clinical findings after their initial evaluation consistent with acute coronary syndromes and are admitted to the hospital. Approximately one-half of these patients, after evaluation in the hospital, are found not to have acute coronary syndromes. The cost for these negative inpatient cardiac evaluations consumes a significant amount of health care dollars in the United States each year. Other cardiac causes such as coronary vasospasm, plus noncardiac causes such as from the gastrointestinal tract, need to be considered. Although it is true that negative cardiac workups do not necessarily indicate cardiopathia fantastica, it is likely that some patients with cardiac Munchausen syndrome are present in the group of patients with a negative cardiac workup. The impact in identifying these patients both in terms of reducing cost and providing better medical care is considerable.

Discussion

The presence of a factitious disorder must be distinguished from patient noncompliance. Occasionally, the inappropriate ingestion of traditional medications (eg, thyroxine) and/or alternate medicines can lead to cardiac disease. In most instances, these are not truly factitious disease because the patient has no intention of inducing disease. Patients with cardiopathia fantastica are willing to undergo incredible hardship, limb amputation, organ loss, and even death to perpetuate the masquerade. Moreover, multiple hospitalizations often lead to iatrogenic physical conditions, such as postoperative pain syndromes and drug addictions. Despite these hazards, patients continue to crave hospitalization and intervention for its own sake. This is illustrated by the patient⁶ who presented with an arterial occlusion in the right leg with a history of cardiac disease and multiple vascular surgeries performed abroad. The patient eventually had a below-

knee amputation secondary to infections and vascular complications. After investigations into the patient's history, it was learned that the patient had 27 admissions in 15 hospitals over 35 months undergoing multiple cardiac catheterizations in addition to other invasive testing for cardiac disease. The patient had suffered thromboembolic complications in many of his evaluations that precipitated his vascular complications.

Most clinicians appropriately rule out identifiable causes of true cardiac disease rather than diagnose factitious cardiac disease on the initial presentation. The diagnosis of cardiac Munchausen syndrome may be further complicated by the use of sophisticated technology that may detect abnormal findings that are clinically insignificant or irrelevant to the patient presentation. Another difficulty encountered is distinguishing cardiopathia fantastica from variant angina (Prinzmetal's angina) because of the transient chest pain seen with variant angina. However, the chest pain that is associated with variant angina is usually associated with ST-segment elevation on the electrocardiogram. Moreover, patients with the variant form of angina respond well to calcium channel blockers and long-acting nitrates but can be diagnosed by coronary arteriography with provocative tests (methylergonovine, acetylcholine, methacholine) that induce coronary artery spasm that can be visualized angiographically¹⁷ and is accompanied by ST-segment elevation. Once organic pathology is excluded, the patient is usually discharged to the primary care physician and may continue to present with cardiac symptoms. Ideally, after a negative workup for true cardiac disease, the clinician should review the patient's history and behavior for signs that point to factitious disorder and possibly break the cycle of recurrent admission and evaluations for organic causes of their symptoms.

In patients with factitious disorder, the production of symptoms and signs is compulsive in that the patient is unable to refrain from the behavior even when its risks are known. The behavior is voluntary only in the sense that it is deliberate and purposeful (intentional), but not in the sense that the acts can be fully controlled. The underlying motivation for producing these deceptions is securing the sick role. The criteria for diagnosing factitious disorders are listed in Table 1.

These patients usually will have a prolonged pattern of

Table 1. DSM-IV criteria for factitious disorder^a

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| Intentional production or feigning of physical or psychological signs or symptoms. |
| The motivation for the behavior is to assume the sick role. |
| External incentives for the behavior (such as economic gain, avoiding legal responsibilities, or improving physical well-being, as in malingering) are absent. |

DSM-IV, Diagnostic and Statistical Manual of Mental Disorders, Fourth Revision.

“medical impostors,” usually years in duration. They typically have a fragile and fragmented self-image and may be prone to psychotic and even suicidal episodes. Thus, interactions with the health care system and relationships with caregivers serve to provide needed structure that stabilizes the sense of self. The hospital itself may be perceived as a refuge. Although some patients are motivated by desires for the attention and gratification associated with medical care, others are apparently driven by the conviction that they have a real, but as yet undiscovered, illness. These patients typically accept their illness with few complaints and are generally responsible workers with moral attitudes and otherwise conscientious behavior. Many are in health care occupations, including nurses, aides, and physicians.¹⁸

The abnormal behavior usually begins before age 20 and is diagnosed between ages 35 and 39. Twice as many men as women are affected.¹⁹ The quest for repeated hospitalizations often takes these patients to numerous and widespread cities, states, and even countries. These individuals see themselves as very important people, or at least related to such persons, and their life events are depicted as exceptional. They possess extensive knowledge of medical terminology. The patient usually presents to the ED during evenings or on weekends, so as to minimize accessibility to psychiatric consultants, personal physicians, and past medical records. In teaching institutions, these patients typically present in July, shortly after the change in resident house officers. They relate their history in a precise, dramatic, even intriguing fashion, embellished with flourishes of pathologic lying and self-aggrandizement (*pseudologia fantastica*). The history quickly becomes vague and inconsistent, however, when the patient is questioned in detail about medical contacts. Attempts to manage the complaint on an outpatient basis may be adamantly resisted. Once admitted, the patient initially appeals to the physician’s qualities of nurturance and omnipotence, lavishing praise on the caregivers. Behavior rapidly evolves, however, as the patient creates havoc on the ward by insisting on excessive attention while ignoring hospital rules. Distinguishing these patients from other similar psychiatric conditions primarily involves the role of consciousness as listed in Table 2.

Treatment

Treatment involves a combination of medical and psychiatric approaches, addressing the patient’s emotional needs as well as the physical manifestations. The doctor must resist

responding punitively, for this will merely perpetuate the syndrome. Blacklisting these patients from the hospital system assumes that such a system would be infallible and that the patient would not develop an organic illness. The prognosis is diminished by hostility of the physician and hospital personnel. An unmasking ceremony that sets up the patient as an adversary and elicits feelings of resentment should be avoided. Their problems should be treated as real and psychiatric. Psychiatric referral appears to be an essential initial therapeutic step, and prolonged psychotherapy may be beneficial for the basic syndrome. It is important to get a psychiatrist involved early in the process, while the patient is in the hospital if possible. Many physicians are uncomfortable making the initial referral because of the patient’s reaction to being referred to psychiatry for what they perceive as a disease with no psychiatric cause. Routine, brief, supportive office visits should be scheduled at regular intervals to provide reassurance and prevent patients from “needing to develop” symptoms to obtain care and attention. A primary care physician can provide this “medical” management well, perhaps in conjunction with a psychiatrist. The study by Smith et al²⁰ demonstrated that such a regimen led to markedly decreased health care costs, with no apparent decrements in health or satisfaction of patients. More ambitious goals have been proposed with the recommendation for multiple approaches including individual psychotherapy, nonfocused group therapy, and electroconvulsive therapy. Whereas early observations indicated some promise with each of these approaches, studies have been generally uncontrolled and used small samples. Subsequent investigations have rarely attempted to replicate reported findings using sophisticated methodology.²¹ In the 1960s, Wheatley²² reported that low doses of anxiolytic drugs provided symptom amelioration in double-blind clinical trials using general practitioners. He also noted that whereas chlor-diazepoxide was recommended for reasons of effectiveness, preference by patients, safety, and symptom relief, optimistic physicians using low doses of any anxiolytic medication obtained the best results. Surprisingly little systematic study of the pharmacologic management of somatization disorder has been performed since. Patients with somatization disorder are often inconsistent and erratic in their use of medications. They will often report unusual side effects that do not have a pharmacologic basis.²¹

Even after such therapeutic guidelines, patients with factitious and other somatoform disorders are often difficult to treat. Attention-seeking behavior, demands, and manipulation are common, necessitating firm limits and careful attention to boundary issues. Almost all therapeutic options that are currently used are managing symptoms rather than trying to cure the underlying problem.

As we deal with the patient’s diseases rather than the patient in this new age of highly advanced medicine, it is easy to overlook the person and therefore misdiagnose factitious disorder. As the population of these patients increases, it is

Table 2. The role of consciousness

Malingering = production of symptoms is deliberate and conscious, in the service of obvious conscious reasons.

Somatoform disorder = production of symptoms is unconscious and the reasons/meanings are unconscious.

Factitious disorder = production of symptoms is deliberate and conscious, but for unconscious reasons.

inevitable that there will be legal implications. Cases involving factitious disorders may enter the civil legal system and cause incorrect judgments based on financial costs due to alleged inappropriate medical care if these disorders are not identified. Psychiatrists and other physicians are usually familiar with factitious disorders, but the legal profession usually is not.²³ Even in this age of increasing sophistication in medicine, a thorough history has never been more important. To quote Hippocrates, “It is more important to know what kind of person has the disease than what kind of disease the person has!”

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■ *We judge ourselves by what we feel capable of doing, while others judge us by what we have already done.*

—Henry Wadsworth Longfellow