Factitious Hemoptysis*
Adding to the Differential Diagnosis

Jonathan B. Baktari, M.D.; Donald P. Tashkin, M.D., F.C.C.P.; and Gary W. Small, M.D.

Background: We report a dramatic case of factitious hemoptysis in a 36-year-old black man who presented with hemoptysis and chest pain.

Methods: After an exhaustive evaluation, including many invasive procedures, we discovered that the patient’s complaints were fabricated, although the method used to simulate hemoptysis was not determined. Documentation was obtained of at least 23 other hospital admissions with similar complaints. During these hospitalizations, numerous diagnostic procedures were performed, including 16 fiberoptic bronchoscopies and 3 cardiac catheterizations, with negative results.

Results: Review of 11 other reported cases of factitious hemoptysis reveals that these patients are generally young (mean age, 32 years; range, 21 to 47 years) and often health-care workers (4 of 12 cases) and that the method of simulating hemoptysis, if discovered, usually involves a self-inflicted wound (5 cases).

Conclusion: A factitious cause should be considered in the differential diagnosis of hemoptysis of unclear etiology, especially when the medical history or the patient’s behavior is unusual.

Although the differential diagnosis of hemoptysis is extensive, consideration of a factitious cause is rarely contemplated. While factitious hemoptysis is not common, we believe that it is underreported and often not recognized and that it should be considered in the differential diagnosis of hemoptysis of unclear etiology, especially when there are unusual aspects to the medical history or the patient’s behavior. We report herein a case of Munchausen’s syndrome characterized mainly by factitious hemoptysis. The level of documented excessive hospitalization and diagnostic procedures dramatically illustrates the considerable time and resources invested by health care providers in evaluating such patients. We also review 11 other published cases of probable factitious hemoptysis.

Case Report

A 36-year-old man presented to the UCLA Medical Center Emergency Department on January 21, 1991, with complaints of recurrent hemoptysis and left-sided chest pain since January 1990. He denied fever, chills, night sweats, weight loss, or a history of lung disease. He also reported no history of tobacco, alcohol, or other drug use or HIV risk factors, was receiving no medications, and had no known drug allergies. He had been employed as an electronics engineer.

Results of physical examination, including a thorough nose, mouth, and throat examination, were normal. Laboratory results, including a complete blood cell count, chemistry panel, coagulation parameters, sedimentation rate, arterial blood gases, and urinalysis were all essentially normal.

Posteroanterior and lateral chest radiographs showed a 1-cm area of opacification in the right lower lobe. High-resolution chest computed tomographic (CT) scan confirmed that this lesion was in the right lower lobe, but no other parenchymal, vascular, or mediastinal abnormalities were identified. Subsequently, the patient underwent bronchoscopies and bronchoalveolar lavage, which showed evidence of mild tracheobronchitis, but no endobronchial lesions or evidence of bleeding. All cultures of the lavage fluid were negative and cytologic examination of the lavage cell pellet showed no evidence of malignancy.

During the hospital course, the patient expectorated several teaspoonfuls of bright red blood in a basin on an almost daily basis, but none of the medical or nursing staff documented actually seeing the patient cough up blood. In addition, he required significant amounts of intravenous narcotics to control his left-sided chest pain. He was discharged from the hospital to return for further evaluation as an outpatient.

Approximately 1 month later, the patient presented again to the UCLA Emergency Department with similar complaints and was rehospitalized. Chest radiograph and chest CT were normal. A ventilation-perfusion scan indicated a low probability for pulmonary embolism. Pulmonary angiography revealed no evidence of pulmonary embolism and normal pulmonary artery pressures. A bronchial arteriogram showed a “questionable area of abnormal vascular blush” in a branch of the bronchial artery feeding the right lung; this branch was embolized to remove a possible cause of the hemoptysis. However, the patient continued to complain of hemoptysis, as well as left-sided chest pain. A technetium-99m-labeled RBC scan failed to show any evidence of bleeding. In an attempt to localize the bleeding site by provoking bleeding in a controlled setting, heparin was administered intravenously after the patient had been informed that this procedure was unconventional and associated with significant risk and had given his consent. Repeated bronchoscopy after adequate anticoagulation showed no evidence of bleeding from the lower respiratory tract except at the sites of previous endobronchial biopsies. The patient then was discharged from the hospital with a follow-up outpatient appointment that he failed to keep.

Approximately 5 months later, he presented to UCLA-affiliated county hospital again complaining of left-sided chest pain and hemoptysis. He denied ever having had similar problems previously or any prior hospitalizations. The pulmonary consultant who was asked to see the patient was the same physician who had evaluated him at UCLA Medical Center. The patient vehemently denied recognizing the pulmonary consultant or having ever been at UCLA Medical Center or any other hospitals. Yet, he also readily consented to authorizing requests for evaluation of his medical records from other hospitals. Several hours later, he left the hospital with his intravenous heparin lock in place and without notifying the nursing or medical staff.

A survey of as many physicians as we could locate who had been involved in his care revealed an extensive hospital itinerary over the past 6 years. We were able to document 25 admissions to 14 other hospitals since 1985. The hospital days per admission ranged from 1 to 22, with a mean of 6.7 days. A total of 168 hospital days was confirmed with about 150 hospital days in 1990-1991 alone. In addition, 11 emergency department visits were documented in 1991. Numerous diagnostic studies were performed during these hospitalizations, including 16 bronchoscopies, 7 chest CTs, 5 ventilation perfusion scans, 4 pulmonary angiograms, 3 aortograms, and 3 cardiac catheterizations. Prussian blue staining of alveolar macrophages in sputum and bronchial washings obtained during one bronchoscopy revealed no to minimal iron pigment. At one hospital, the patient was offered and consented to thoracotomy, after bronchoscopy revealed a possible bleeding site. The patient actually had received general anesthesia for a planned thoracotomy that was cancelled at the last moment after the surgeon failed to find any significant abnormality.

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during a final bronchoscopy performed on the operating room table. Drug-seeking behavior was noted during several hospitalizations. During these admissions, he required relatively large doses of narcotics to alleviate chest pain. After exhaustive evaluation for the cause of his chest pain, several physicians raised the question of a factitious disorder and obtained psychiatric consultation. Several psychiatric diagnoses were suggested, including dysthymic disorder, major depression with borderline personality traits, and adjustment disorder. During his numerous hospitalizations, the patient received a variety of treatments, including intravenous antibiotics, high-dose corticosteroids, heparin, and nitroglycerin and bronchial artery embolization.

During his most recent hospitalization, the patient confessed that he had visited one hospital after another seeking admission because he was very depressed and expressed the hope that he might have died from possible complications of one of his many procedures. In addition to a suicidal wish, drug seeking was another stated motive. However, the patient refused to divulge the means by which he had simulated hemoptysis. A psychiatric consultation was obtained and a diagnosis of Munchausen's syndrome was made. The patient was offered outpatient counseling. Although he proclaimed an interest in receiving psychotherapy, he did not keep his follow-up appointment.

**DISCUSSION**

The recurrent hemoptysis illustrated by the present patient was almost certainly of factitious origin. While several members of the medical and nursing staff observed bright red blood mixed with sputum at the patient's bedside, no one actually witnessed the patient expectorating blood. However, the direct observation of bloody expectoration does not exclude a factitious etiology. Although the patient produced sputum with bright red blood in a basin shortly prior to several bronchoscopies, the lack of evidence of even minute traces of blood in his oral cavity, glottic area, or tracheobronchial tree during the ensuing bronchoscopy aroused suspicion that the blood did not arise from his respiratory tract.

This case also illustrates features of factitious disorder with physical symptoms wherein the patient's symptoms are intentionally produced or feigned. The chronic form of factitious disorder with physical symptoms is known as Munchausen's syndrome and includes a pattern of repeated hospitalizations and procedures. Usually no obvious ulterior motive or secondary gain underlies the compulsion of the patient with Munchausen's syndrome to seek hospitalization. Therefore, the drug-seeking behavior exhibited by the present patient is not characteristic of this syndrome. Although this patient's drug seeking was an important motive underlying his complaint of chest pain, it is unlikely that he would consent to thoracotomy, if drug seeking was his only motive.

Previous experience with patients with Munchausen's syndrome suggests that psychotherapeutic interventions are usually unsuccessful. Although supportive and nonpunitive confrontation is occasionally effective, it often leads to hospital departure against medical advice. Other approaches include indirectly and gently informing the patient of knowledge of the deceit or avoiding confrontation altogether. Several authors argue for the establishment of a regularly updated, readily accessible national registry of such patients to alert clinicians and facilitate early recognition.

An important societal impact of factitious disorders is the cost to the health care system. The present patient's expenses at our institution alone amounted to approximately $58,000. If one prorates this bill to the cost of an estimated 165 total hospital days, the total expenses would be roughly $600,000. If one assumes that we were able to locate only a fraction of the patient's hospital admissions, the total bill could be multiplied by an undetermined factor. Therefore, this patient illustrates not only an isolated medical/psychiatric disorder, but also a problem that affects the health care system at large.

Review of the literature documents 11 other cases of factitious hemoptysis and includes a pattern of repeated hospitalizations and procedures. Usually no obvious ulterior motive or secondary gain underlies the compulsion of the patient with Munchausen's syndrome to seek hospitalization. Therefore, the drug-seeking behavior exhibited by the present patient is not characteristic of this syndrome. Although this patient's drug seeking was an important motive underlying his complaint of chest pain, it is unlikely that he would consent to thoracotomy, if drug seeking was his only motive.

**Table 1 — Reported Cases of Factitious Hemoptysis**

<table>
<thead>
<tr>
<th>Source</th>
<th>Year</th>
<th>Case No./Age, yr/sex</th>
<th>Occupation</th>
<th>Method of Producing or Simulating Hemoptysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapman et al.</td>
<td>1957</td>
<td>1/39/M</td>
<td>Merchant seaman</td>
<td>Self-inflicted wound</td>
</tr>
<tr>
<td>Barker et al.</td>
<td>1962</td>
<td>2/43/M</td>
<td>?</td>
<td>Injury to posterior pharynx with a piece of glass</td>
</tr>
<tr>
<td>Bowie et al.</td>
<td>1965</td>
<td>3/47/M</td>
<td>Fish dealer</td>
<td>Dicumarol self-administration</td>
</tr>
<tr>
<td>Roethe et al.</td>
<td>1981</td>
<td>5/34/F</td>
<td>Nurse</td>
<td>Self-inflicted wounds to posterior part of tongue</td>
</tr>
<tr>
<td>Roethe et al.</td>
<td>1981</td>
<td>7/26/F</td>
<td>Nurse</td>
<td>Venipuncture</td>
</tr>
<tr>
<td>Roethe et al.</td>
<td>1981</td>
<td>7/21/F</td>
<td>Respiratory therapy student</td>
<td>Trauma to trachea with cotton swab</td>
</tr>
<tr>
<td>Feinsilver et al.</td>
<td>1983</td>
<td>8/30/F</td>
<td>Nurse</td>
<td>Unclear</td>
</tr>
<tr>
<td>Raj and Chawala</td>
<td>1955</td>
<td>9/27/F</td>
<td>&quot;Housewife&quot;</td>
<td>Manipulation of pharyngeal muscles</td>
</tr>
<tr>
<td>Humphries et al.</td>
<td>1988</td>
<td>10/27/F</td>
<td>?</td>
<td>Biting the inside of lip</td>
</tr>
<tr>
<td>Ifudu et al.</td>
<td>1992</td>
<td>11/30/M</td>
<td>? Professional football player</td>
<td>Unclear</td>
</tr>
<tr>
<td>Present study</td>
<td>1993</td>
<td>12/36/M</td>
<td>Computer technician</td>
<td>Unlclear</td>
</tr>
</tbody>
</table>

**Factitious Hemoptysis (Baktari, Tashkin, Small)**

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few patients with cryptogenic hemoptysis present with bizarre stories of relentlessly recurrent expectoration of blood for which they repeatedly seek hospitalizations and willingly undergo a multitude of diagnostic studies, including invasive medical procedures. These unusual features should arouse suspicion of a possible factitious etiology. Characteristic features of such patients include a relatively young age, normal results of physical examination, normal results of laboratory studies, including chest radiograph and fiberoptic bronchoscopy, and a history of multiple previous evaluations, including invasive diagnostic procedures.

We believe that factitious hemoptysis is underrecognized and underreported. Possible reasons include (1) the reluctance of physicians to entertain factitious etiology when there is no apparent ulcer or secondary gain and (2) the belief that the patient’s ability to produce actual blood at the bedside, albeit by one form of subterfuge or another, lends physical credence to the patient’s complaints. Even when a factitious etiology is suspected, the physician’s ability to investigate and confirm the suspicion of a factitious disorder is often hampered, given the ethical constraints required for preserving confidentiality and avoiding invasion of the patient’s privacy.22'24 Cases of hemoptysis of unclear etiology associated with a bizarre medical history or unusual personal behavior should arouse suspicion of a factitious cause.

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Transesophageal Echocardiography of Right Atrial Metastasis of a Hepatocellular Carcinoma*

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Antemortem diagnosis of cardiac metastases of a hepatocellular carcinoma is rarely observed. In a 52-year-old female patient with a history of posthepatic cirrhosis and partial hepatectomy, transesophageal echocardiography brought to light a mass in the right atrium. After location and characterization of the tumor by transesophageal echocardiography, a transvenous biopsy confirmed the diagnosis of metastasis of a hepatocellular carcinoma.

(CHEST 1994; 105: 945-47)

HCC = hepatocellular carcinoma; TEE = transesophageal echocardiography; TTE = transthoracic echocardiography

Metastasis of a hepatocellular carcinoma (HCC) to the heart is rare. Postmortem studies report incidences of 2.6 percent and 1.6 percent for metastasis to the heart for HCC in noncirrhotic and cirrhotic patients, respectively.1 We report a case of a right atrial metastasis in a 52-year-old Pakistani woman with cirrhotic disease of the liver and a

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