Ms. L, age 75, presents to the ED with severe weight loss, self-neglect, and a constant worry about what she eats. What could be causing her fixation on the negative effects of food?

**CASE** Fixated on health and nutrition

At the insistence of her daughter, Ms. L, age 75, presents to the emergency department (ED) for self-neglect and severe weight loss, with a body mass index (BMI) of 13.5 kg/m² (normal: 18.5 to 24.9 kg/m²). When asked why she is in the ED, Ms. L says she doesn’t know. She attributes her significant weight loss (approximately 20 pounds in the last few months) to gastroesophageal reflux disease (GERD). She constantly worries about her esophagus. She had been diagnosed with esophageal dysphagia 7 years ago after undergoing radiofrequency ablation for esophageal cancer. Ms. L fixates on the negative effects certain foods and ingredients might have on her stomach and esophagus. Following transfer from the ED, Ms. L is involuntarily admitted to our inpatient unit. Although she acknowledges weight loss, she minimizes the severity of her illness and indicates she would like to gain weight, but only by eating healthy foods she is comfortable with, including kale, quinoa, and vegetables. Ms. L says that she has always been interested in “healthful foods” and that she “loves sugar,” but “it’s bad for you,” mentioning that “sugar fuels cancer.” She has daily thoughts about sugar causing cancer. Ms. L also mentions that she stopped eating flour, sugar, fried food, and oils because those foods affect her “stomach acid” and cause “pimples on my face and weight loss.” While in the inpatient unit, Ms. L requests a special diet and demands to know the origin and ingredients of the foods she is offered. She emphasizes that her esophageal cancer diagnosis and dysphagia exacerbate worries that certain foods cause cancer, and wants to continue her diet restrictions. Nonetheless, she says she wants to get healthy, and denies an intense fear of gaining weight or feeling fat.

**HISTORY** Multiple psychiatric diagnoses

Ms. L lives alone and enjoys spending time with her grandchildren, visiting museums, and listening to classical music. However, her family, social workers, and records from a previous psychiatric hospitalization reveal that Ms. L has a history of psychiatric illness and fears regarding certain types of foods for much of her adult life.

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Ms. L’s family also described a range of compulsive behaviors, including shoplifting, hoarding art, multiple plastic surgeries, and phases where Ms. L ate only frozen yogurt without sugar.

Ms. L’s daughter reported that Ms. L had seen a psychologist in the late 1990s for depression and had been diagnosed with obsessive-compulsive disorder (OCD) and attention deficit/hyperactivity disorder in the early 2000s. In 2006, during a depressive episode after her divorce, Ms. L had a suicide attempt with pills and alcohol, and was hospitalized. Records from that stay described a history of mood dysregulation with fears regarding food and nutrition. Ms. L was treated with aripiprazole 5 mg/d. A trial of trazodone 25 mg/d did not have any effect. When discharged, she was receiving lamotrigine 100 mg/d. However, her daughter believes she stopped taking all psychiatric medications shortly after discharge.

Her daughter says that in the past 2 years, Ms. L has seen multiple doctors for treatment of somatic gastrointestinal (GI) complaints. A 2018 note from a social worker indicated that Ms. L endorsed taking >80 supplements per day and constantly researched nutrition online. In the months leading to her current hospitalization, Ms. L suffered from severe self-neglect and fear regarding foods she felt were not healthy for her. She had stopped leaving her apartment.

**EVALUATION**

**Poor insight, normal lab results**

During her evaluation, Ms. L appears cachectic and frail. She has a heavily constricted affect and is guarded, dismissive, and vague. Although her thought processes are linear and goal-directed, her insight into her condition is extremely poor and she appears surprised when clinicians inform her that her self-neglect would lead to death. Instead, Ms. L insists she is eating healthily and demonstrates severe anxiety in relation to her GI symptoms.

Ms. L is oriented to person, place, and time. She scores 27/30 on the Montreal Cognitive Assessment, indicating normal cognition. She denies any depressive symptoms or suicidal intent. She does not appear to be internally preoccupied and denies having auditory or visual hallucinations or manic symptoms.

A neurologic examination reveals that her cranial nerves are normal, and cerebellar function, strength, and sensory testing are intact. Her gait is steady and she walks without a walker. Despite her severely low BMI and recent history of self-neglect, Ms. L’s laboratory results are remarkably normal and show no liver, metabolic, or electrolyte abnormalities, no signs of infection, and normal vitamin B12 levels. She has slightly elevated creatinine and blood urea nitrogen levels, but a normal glomerular filtration rate.

Her medical history is significant for squamous cell esophageal cancer, treated with radiofrequency ablation. Although Ms. L is constantly worried about the recurrence of cancer, pathology reports demonstrate no esophageal dysplasia. However, she does show evidence of an approximately 1 cm × 1 cm mild, noncircumferential esophageal stenosis, likely resulting from radio-frequency ablation.

**What should be included in the differential diagnosis for Ms. L?**

- a) Anorexia nervosa
- b) Avoidant/restrictive food intake disorder
- c) OCD
- d) Somatic symptom disorder
- e) Illness anxiety disorder
- f) All the above

**The authors’ observations**

Several health- and physical symptom-related psychiatric disorders have overlapping features, which can complicate the differential diagnosis (Table 1, page 49). Ms. L presented to the ED with a severely low BMI of 13.5 kg/m², obsessions regarding...
specific types of food, and preoccupations regarding her esophagus. Despite her extensive psychiatric history (including intense fears regarding food), we ruled out a primary psychotic disorder because she did not describe auditory or visual hallucinations and never appeared internally preoccupied. While her BMI and persistent minimization of the extent of her disease meet criteria for anorexia nervosa, she denied body dysmorphia and did not have any fear of gaining weight.

A central element of Ms. L’s presentation was her anxiety regarding how certain types of foods affect her esophagus. While Ms. L was in remission from esophageal cancer and had a diagnosis of esophageal dysphagia, these preoccupations and obsessions regarding how certain types of foods affect her esophagus drove her to self-neglect and thus represent pathologic thought processes out of proportion to her symptoms. Illness anxiety disorder was considered because Ms. L met many of its criteria: preoccupation with having or acquiring a serious illness, disproportionate preoccupation with somatic symptoms if they are present, extreme anxiety over health, and performance of health-related behaviors.\textsuperscript{1} However, illness anxiety disorder is a diagnosis of exclusion, and 1 criterion is that these symptoms cannot be explained by another mental disorder. We felt other diagnoses better fit Ms. L’s condition and ruled out illness anxiety disorder.

### Table 1

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Somatic symptoms?</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Somatic symptom disorder</td>
<td>Yes, often painful</td>
<td>• Persistent somatic symptoms that cause distress and disrupt daily life&lt;br&gt;• High level of anxiety disproportionate to the severity of symptoms&lt;br&gt;• Excessive time devoted to symptoms</td>
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<tr>
<td>Illness anxiety disorder</td>
<td>No, or mild</td>
<td>• Preoccupation with having or acquiring a serious illness&lt;br&gt;• Patient either seeks care from many clinicians and is unsatisfied with negative results, or avoids medical care and believes a physician may reveal a life-threatening illness</td>
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<tr>
<td>Delusional disorder, somatic type</td>
<td>No</td>
<td>• Fixed, persistent delusion(s) without markedly impaired functioning&lt;br&gt;• Belief that something is wrong with the body: an undiagnosed disease, infested with parasites, parts of the body are misshapen or malodorous&lt;br&gt;• Patient seeks care by many clinicians, is disappointed by negative evaluations</td>
</tr>
<tr>
<td>Conversion disorder</td>
<td>Yes, often neurologic</td>
<td>• Voluntary motor or sensory functional deficits that disrupt daily life but without correlative clinical findings&lt;br&gt;• Symptoms often include weakness, paralysis, abnormal movements, and abnormal sensation</td>
</tr>
<tr>
<td>Body dysmorphic disorder</td>
<td>No</td>
<td>• Preoccupied with ≥1 perceived flaws in physical appearance&lt;br&gt;• Others cannot detect perceived flaw, or flaw appears slight&lt;br&gt;• Patient devotes excessive time to checking or thinking about perceived flaws</td>
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Source: Reference 1

Clinical Point

Avoidant/restrictive food intake disorder is common among adults with gastrointestinal disorders.
Ms. L’s long history of food and non-food-related obsessions and compulsions that interrupted her ability to perform daily activities were strongly suggestive for OCD. Additionally, her intense preoccupation, high level of anxiety, amount of time and energy spent seeking care for her esophagus and GERD symptoms, and the resulting significant disruption of daily life, met criteria for somatic symptom disorder (SSD). However, we did not believe that a diagnosis of OCD and SSD alone explained the entirety of Ms. L’s clinical picture. Despite ruling out anorexia nervosa, Ms. L nonetheless demonstrated disordered eating.

Avoidant/restrictive food intake disorder (ARFID) is an eating disorder in which patients restrict their diet and do not meet nutritional needs for any number of reasons, do not experience body dysmorphia, and do not fear weight gain.1 A common feature of ARFID is a fear of negative consequences from eating specific types of food.2 Table 2 lists additional clinical features of ARFID. Although ARFID is typically diagnosed in children and adolescents, particularly in individuals with autism with heightened sensory sensitivities, ARFID is also common among adult patients with GI disorders.3 In a retrospective chart review of 410 adults ages 18 to 90 (73% women) referred to a neurogastroenterology care center, 6.3% met the full criteria for ARFID and 17.3% had clinically significant avoidant or restrictive eating behaviors. Among patients with ARFID symptoms, 93% stated that a fear of GI symptoms was the driver of their avoidant or restrictive eating behaviors.2

Patients with GI diseases often develop dietary control and avoidance coping mechanisms to alleviate their symptoms.4 These strategies can exacerbate health anxieties and have a detrimental effect on mental health.5 Patients with GI disorders have a high degree of comorbidity with affective disorders, including anxiety disorders.6 These trends may arise from hyper-vigilance and the need to gain control over physical symptoms.7 Feeling a need for control, actions driven by anxiety and fear, and the need for compensatory behaviors are cardinal features of OCD and eating disorders.8 Multiple studies have demonstrated comorbidities between irritable bowel syndrome and eating disorders,9 SSD,10 and OCD.11 Taken together with observations that ARFID is also found in patients with GI disorders,2 these findings demonstrate that patients with a history of GI disease are at high risk of developing extreme health anxieties and behavioral coping strategies that can lead to disordered eating.

The rise in “healthy” eating materials online—particularly on social media—has created an atmosphere in which misinformation regarding diet and health is common.
and widespread. For patients with OCD and a predisposition to health anxiety, such as Ms. L, searching online for nutrition information and healthy living habits can exacerbate food-related anxieties and can lead to a pathological drive for purity and health.12

Although not included in DSM-5, orthorexia nervosa was identified in 1997 as a proposed eating disorder best characterized as an obsession with healthy eating with associated restrictive behaviors.13 Patients with this disorder are rarely focused on losing weight, and orthorexic eating behaviors have been associated with both SSD and OCD.12,14 As in Ms. L’s case, patients with orthorexia nervosa demonstrate intrusive obsessions with nutrition, spend excessive amount of time researching nutrition, and fixate on food quality.12 Throughout Ms. L’s hospitalization, even as her food-related magical thinking symptoms improved, she constantly informed her care team that she had been “eating healthily” even though she was severely cachectic. Patients with SSD and OCD prone to health anxieties are at risk of developing pathologic food beliefs and dangerous eating behaviors. These patients may benefit from psychoeducation regarding nutrition and media literacy, which are components of effective eating disorder programs.15

What would you prescribe for an older adult with symptoms of OCD, SSD, and ARFID?

a) Reassurance and social engagement
b) Selective serotonin reuptake inhibitor (SSRI) monotherapy
c) Second-generation antipsychotic (SGA) monotherapy
d) SSRI plus an SGA
e) Mirtazapine

The authors’ observations

How do we approach the pharmacologic treatment of patients with co-occurring eating, somatic symptom, and anxiety disorders? Olanzapine facilitates recovery in children and adolescents with ARFID by promoting eating and weight gain, and decreasing symptoms of depression and anxiety.16 Patients with orthorexia nervosa also may benefit from treatment with olanzapine, which has decreased food-related fixations, magical thinking, and delusions regarding food.17 Further, orthorexic patients with ARFID have also been shown to respond to SSRIs due to those agents’ efficacy for treating intrusive thoughts, obsessions, and preoccupations from OCD and SSD.18,19 Thus, treating Ms. L’s symptoms with olanzapine and fluoxetine targeted the intersection of several diagnoses on our differential. Olanzapine’s propensity to cause weight gain is favorable in this population.

**Bottom Line**

Anxiety disorders, eating disorders, and somatic symptom disorder are common in patients with gastrointestinal disease, and the overlap of the presentations of these disorders can make their diagnosis and management challenging. It is particularly critical to diagnose and treat eating disorders in older adults because this population can experience increased morbidity and mortality from resulting complications.
particularly patients such as Ms. L, who do not exhibit body dysmorphia or fear of gaining weight.

**OUTCOME** Weight gain and fewer fears

Ms. L is prescribed olanzapine 5 mg/d and fluoxetine 20 mg/d. She gains 20.6 pounds in 4 weeks. Importantly, she endorses fewer fears related to foods and expands her palate to include foods she previously considered to be unhealthy, including white bread and farm-raised salmon. Further, she spends less time thinking about food and says she has less anxiety regarding the recurrence of GI symptoms.

**Clinical Point**

Olanzapine has a propensity to cause weight gain, which can be beneficial to patients with certain eating disorders.

**References**