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FECAL INCONTINENCE IN OLDER ADULTS: A PRACTICAL APPROACH

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Abstract

Fecal incontinence is a condition that increases in prevalence with age but should not be considered a normal part of aging. Active case-finding is very important in older adults, who are often reluctant to disclose this condition to their health care providers. Fecal incontinence in older adults is often multifactorial, and therefore they should have a careful history taken and targeted physical examination performed in order to elucidate the causes of fecal incontinence. Health care practitioners should be aware that evidence-based treatments exist and should be selected based on the patient's functional status, cognitive status and goals of care.

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Key points

1. Fecal Incontinence (FI) is not a normal part of aging.

2. Active case finding for FI is very important, as most patients will not disclose this condition to their health care providers.

3. The type of incontinence must be determined through a FI-focused history, and a targeted physical exam should be performed to help diagnose the underlying causes of FI.

4. Both non-pharmacological and pharmacological treatment options exist for FI and should be offered to patients and their caregivers based on their functional and cognitive status and goals of care.

Introduction

Fecal incontinence (FI) is an under-reported health condition in older adults that is often overlooked by health care practitioners who consider it to be a normal consequence of aging. In actuality, the function of the gastrointestinal system remains relatively preserved with aging,[1] and FI should therefore be considered pathological and the underlying etiology sought. A recent population-based survey in the United States found that 1 in 7 people are affected by FI,[2] with rates of FI increasing with age in both females and males.[3] Rates are much higher in those in long-term care. In this population, chronic FI is often a marker of increasing frailty and is associated with higher one-year mortality.[4]

Active case finding for FI is essential in older adults as many patients will not disclose the presence of FI to a health care provider.[5] High-risk patients such as those with medical conditions commonly seen in older adults such as diabetes mellitus, stroke, spinal cord lesion (e.g., disk herniation, spinal stenosis) and chronic constipation should be particularly targeted. Similarly, the presence of dementia and lack of participation in social activities are associated with FI in older adults and should lead to more proactive screening.[3]

Simple screening questions (e.g., "Do you leak stool or have difficulty controlling your bowel movements?") should therefore be a routine practice for older adults so that FI can be identified and an individualized treatment plan can be made.

FI assessment

Taking a thorough and accurate history is very important in the diagnosis of FI. FI is defined as the involuntary passage of stool or the inability to control the expulsion of stool.[6] FI is a subtype of anal incontinence, defined as the involuntary loss of feces and/or flatus and/or mucus.[7] FI is not synonymous to diarrhea, defined as the frequent passage of loose stools. Although the two may co-exist and diarrhea may lead to more severe FI, the presence of acute or chronic diarrhea should prompt further investigations to look for specific underlying etiologies (e.g., infectious, inflammatory, malabsorption, etc.).

When considering the etiology of FI, an anatomical approach can help to organize one's approach (Table 1). In older patients, the etiology is often multifactorial and disorders outside the GI tract, particularly within the central nervous tract, are more common.

There are three main types of leakage: urge, passive and seepage. Determining the type of FI is important and is helpful in diagnosing the underlying causes. Those with urge will be aware that they have to defecate but are unable to reach the washroom in time. Patients with passive leakage have no awareness that they need to defecate and describe FI without warning. Those with seepage will describe awareness followed by a normal defecation, then leakage post-defecation that often occurs without warning. These three types of leakage may co-exist to different degrees depending on the underlying etiology.

A history for FI should also include a review of the patient's past medical history, medications and functional status. Further details about the FI episodes (onset of FI, quantity and frequency of leakage, containment products used, effect on quality of life, timing, presence or absence of urgency) should also be elucidated. The Bristol Stool Chart[8] (see www.bladderandbowel.org/wp-content/uploads/2017/05/BBC002_Bristol-Stool-Chart-Jan-2016.pdf) is a quick tool that allows patients to visually identify their stool quality/consistency. There are also several validated questionnaires for FI including the Modified Manchester Questionnaire (see https://deepblue.lib.umich.edu/bitstream/handle/2027.42/41395/10350_2004_Article_899.pdf;sequence=1),[9] the ICIB-Q[10] and St. Mark's Incontinence Score,[11] which include questions about stool frequency and consistency, flatus and/or effects on quality of life.

Importantly, one must always consider red flag symptoms such as unexplained change in bowel habits for three months, rectal bleeding or mucus, unexplained weight loss, anemia and family history of bowel cancer.[6] Such red flags should prompt a referral for a colonoscopy if this is aligned with the patient's goals of care. New onset FI associated with back pain and new neurological abnormalities in the lower extremities necessitates an urgent MRI to rule out cauda equina.

Physical exam can help to reveal the underlying cause and also complications from FI. The physical exam should include an abdominal exam to look for scars from prior surgeries and palpate for masses. With the patient in left lateral decubitus position, inspection of the perineum can be performed to look for skin breakdown and signs of bacterial or fungal infection that can occur with FI and may be a sign of inability to maintain proper hygiene and/or improper use of continence products. Next, a sharp instrument can be used to test S2-S4 sensation (three arc-like strokes moving out from the anus to the inner upper thigh), and the anal wink can be elicited by stroking the skin around the anus and watching for external anal sphincter contraction. A digital rectal examination is then done to check for the presence of impacted stool, hemorrhoids, rectal prolapse or anal fissures and to test both strength and endurance of anal contraction. In older patients, a gait assessment is important to screen for slow gait speed and poor balance that may impair their ability to make it to the washroom in time. Similarly, watching how older adults unbutton or unzip their clothing can reveal problems with dexterity or praxis that may delay toileting.

Additional investigations may be required on an individual basis. For those with either loose stools or those suspected of having constipation with overflow incontinence, basic blood tests such as a complete blood count (CBC), Calcium, TSH, HbA1C and Albumin can be ordered. If the patient has chronic loose stools associated with flatulence and bloating, hydrogen breath for lactose intolerance and bacterial overgrowth and/or a trial of a lactose-free diet can be considered. Rarely, imaging such as an endorectal ultrasound, rectal MRI and defaecography can be considered if a structural cause of FI is suspected and the patient is a surgical candidate for repair. Anal manometry, a test that measures internal and external anal sphincter function as well as rectal sensation, may also be considered in selected patients with undifferentiated FI.

Developing a treatment plan

Treatment plans are then developed based on the etiology of the FI (Table 1) as well as the older adult's functional status, cognitive status and goals of care (Figure 1). The degree of bother and effect on quality of life that results from one's FI is also very important to elucidate as it can help guide the intensity of the treatment regime. For those who require assistance with toileting, it is imperative that caregivers be included in the development of the treatment plan such that a realistic and practical approach can be developed.

As is the case for urinary incontinence, a multidisciplinary approach is often required for the management of FI in older adults.[12] The physician can perform a thorough review of comorbidities and medications that may be contributing to the underlying cause of FI and may choose to order

some preliminary investigations. Nurse continence advisors (NCAs) are registered nurses who have additional training in both urinary and fecal incontinence and are an integral part of the multidisciplinary team. They are often also involved in the assessment phase, identifying lifestyle factors (diet, fluid intake, hygiene) that may be contributing to FI. NCAs play a key role in teaching patients and caregivers how to practically implement FI treatments and then follow through to ensure that the plan is achievable and effective. Such treatment plans may include food diaries to identify dietary triggers, optimizing fluid intake, recommending skin-care regimens to prevent skin breakdown and toileting regimens for frailer patients and their caregivers. Social work may also be needed when caregiver burnout is a major issue. The number of caregiving hours has been found to be higher for those with FI[13] and caregivers for those with FI have high rates of emotional distress and health deterioration.[14] Lastly, the role of physiotherapists in the treatment of FI cannot be understated. Both general physiotherapists to increase mobility for toileting, as well as pelvic floor physiotherapists may be part of the treatment team.

The treatment plan begins with non-pharmacological strategies to address FI. Nurse-led education about conservative measures for FI have been found to be helpful in reducing FI frequency, either alone or as part of a multicomponent intervention.[15] This education should include a recommendation to increase soluble fibre in a stepwise fashion if stools are loose, as this intervention has been found to decrease the frequency of FI.[16] A referral to a registered dietitian may be important in cases where patients with FI are significantly limiting total intake and/or skipping meals to avoid an FI episode due to the risk of malnutrition in such patients. Those with FI and their caregivers also need to be educated about proper positioning for defecation (well supported in seated position, leaning forward, with feet raised off the ground).[17] Considering the environment in which one is toileting is also important to ensure that it is accessible, free of obstacles and private.[18] While establishing a bowel habit routine can be helpful, current evidence does not support the use of timed or prompted toileting protocols.

Pelvic floor physiotherapy is effective in cognitively intact older adults who are motivated to attend regular sessions and practice their prescribed exercises. The use of biofeedback as part of therapy, which uses electrodes to allow patients to better sense their ability to contract the pelvic floor, has been shown to be particularly effective.[19] Tibial nerve stimulation (TNS), during which a surface electrode or needle is placed/inserted over the tibial nerve and small, short pulses of electricity are administered, is an investigational therapy for FI. While a systematic review in 2014 showed TNS to be no better than a sham,[20] a more recent study in 2015 found some improvement in secondary outcomes, particularly urgency-related FI. This low-cost, low-invasive therapy needs further study but could be a good option for older adults if future studies show benefit.

In terms of medical therapies, psyllium-based supplements (e.g., Metamucil, Benefibre) are recommended in community dwelling, active older adults with loose stools in order to improve control of stool passage. It must be ensured that an adequate amount of fluid (at least six cups of total fluid per day) is being consumed to avoid paradoxical constipation. Such supplements should generally be avoided in those who are immobilized (including hospitalized patients) for the same reason.
It is prudent to start with a small amount (1 tbsp of psyllium powder) and gradually increase to 4 tbsp of powder. Psyllium supplementation has been shown to lead to a significant reduction in FI frequency in those with loose or liquid stools (up to 50% improvement)[16] and are just as effective as anti-motility agents (e.g., loperamide).[21] Anti-motility agents have a role in select patients with loose stools and non-infectious chronic diarrhea. As such agents can also increase resting anal canal pressures, it may also be useful for patients with anorectal surgery who have passive FI. In older adults particularly, loperamide is preferred over codeine and diphenoxylate. Due to the risk of arrythmia associated with excessive loperamide dose, older patients, particularly those with underlying cardiac disease, should be instructed to stay at the lower end of the dosing interval (maximum 8 mg per day, divided into four doses). Care must be taken to avoid excessive use, which may lead to constipation, especially in those who are sedentary. Caution must be employed in those with cognitive impairment who are more vulnerable to the weak anticholinergic effects of loperamide on the central nervous system.

Transanal irrigation, used to irrigate the lower bowel from the rectum, is another treatment for FI that has been shown to decrease FI rates in observational studies by up to 63%[22] and may be beneficial as an add-on therapy for those with FI not responding to psyllium.[23] In a small prospective study from 2011 with 14 patients who had undergone anterior resection who used transanal irrigation for a median of 29 months, there was a significant decrease in the number of defecations during both day and night and marked improvement in quality of life.[24] Further study with randomized control trials are needed to study the effectiveness of transanal irrigation, but this may be a promising treatment for older adults to use in order to have fewer and more predictable bowel movements, which in turn can improve quality of life.

Lastly, non-frail patients with trauma to the sphincter or sphincter defects who are refractory to conservative therapies may be referred for surgical intervention such as sacral neuromodulation, sphincter repair or sphincteroplasty.

Conclusion

FI is a condition that affects those of all ages and can have significant negative effects on the quality of life of older adults. Active case finding is important to identify those with FI, and consideration should be given to all possible causes in order to form an individualized treatment plan. It is important for patients and their caregivers to recognize that evidence-based treatments for FI exist so that they can feel empowered to engage in their treatment and feel hopeful that their symptoms can improve.

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Table 1. Causes of FI

Anus: -Traumatic – surgical or obstetrical injury -Non-traumatic – radiation, fibrosis, neuropathy (e.g., diabetes)
Pelvic floor: -Traumatic – surgical or obstetrical injury, chronic straining -Non-traumatic – obesity, sarcopenia, poor muscle coordination
Rectum: -Traumatic – surgical injury -Inflammation – inflammatory bowel disease, radiation, infection -Reduced sensation – neuropathy, constipation
Bowel: -Diarrhea – infection, inflammation, medications (magnesium, antibiotics, metformin, proton pump inhibitors, cholinesterase inhibitors, antifungals, calcium channel blockers) -Constipation with overflow diarrhea
Central nervous system: -Brain – neurogenerative disorders, stroke, brain tumor, MS -Spinal cord – spinal cord injury, spinal stenosis, myelopathy

Figure 1. Approach to FI in older adults