Constipation in the elderly

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Causes

Most of the causes of constipation in younger age groups apply to the elderly and I will not attempt a systematic classification (Table 1). When bowels have not acted for some days after illness relatives will say 'But she hasn't eaten anything'—and they are right. *Lack of food* whether from starvation or illness may be a cause, especially if food is easily absorbed and *lacking in insoluble cellulose residues* or roughage. *Lack of sufficient fluids* may also cause constipation. This may be due to sweat loss in fever or hot weather, loss by vomiting, or diuresis for instance in diabetes, causing dehydration. A helpless old person can easily become dehydrated even with ample fluid on the locker, simply because nursing staff do not ensure that it is taken. Even if given frequently, much is often spilt and little swallowed. Sometimes the elderly, who have small capacity bladders and suffer frequency of micturition, habitually take insufficient fluid for fear of incontinence or the need to make frequent visits to the toilet. With old kidneys passing urine of fixed low concentration the risk of dehydration is the greater.

TABLE 1
Some causes of constipation in the elderly

Lack of physiological needs	Food Cellulose residues Fluids Thyroid
Muscular weakness, herniae	Diaphragm Abdominal wall Pelvic floor Bowel musculature
Bowel abnormalities	Carcinoma Diverticulitis
Neglect of call to stool	Discomfort of toilet Fear of pain—piles, fissure Vascular brain damage Depression
Drugs	Purgatives Iron Codeine Antacids—calcium carbonate Anti-spasmodics Anti-hypertensives Anti-Parkinsonism drugs Barbiturates, sedatives

While considering lack of essentials one should mention *lack of thyroid*: constipation is usual in hypothyroidism which is easily missed, as a harsh voice, dry skin, cold intolerance and slow mentality may all be attributed to old age.

Muscular weakness is often found in the elderly. The diaphragm is weak, hiatus hernia common, and chest and heart conditions may further make straining difficult. Weak abdominal muscles, with hernia at various sites often ignored by patient and physician, all add to the difficulty. It is possible that the bowel musculature itself gradually weakens with age.

Bowel abnormalities such as carcinoma or diverticulitis should be considered.

Rectal stasis or dyschezia. Neglect of the normal call to stool sent up to the brain when the rectum fills may be due to a variety of reasons.

The elderly do not rush off to school or office but there may be aversion to the *discomfort of the toilet*. This may involve a difficult journey, climbing stairs with laboured breathing or arthritic joints, or negotiating in winter the icy steps and slippery yard to the cold outside closet. It is surprising how many old people endure such conditions in old housing which would not be tolerated by the young. *Fear of pain* from piles or fissure may add to the aversion.

Depression is usually associated with constipation, but I think probably the commonest cause in the elderly of neglect of the call of the full rectum is the brain dulled and damaged by *cerebral vascular disease*. The bowel soon becomes lethargic and overloaded and the patient ceases to be aware.

Many *drugs* cause constipation. Paradoxically the first to be considered are *purgatives*. Bowel obsession is common as the older generation were indoctrinated with the need for 'cleansing the system'. The laxatives they often take may empty the whole colon instead of only the distal portion. Physiological constipation ensues while the colon refills, which in turn is regarded as a need for more pills. Indeed many symptoms formerly attributed to constipation are now known to be due to the purgatives taken.

Among *iatrogenic causes* must be remembered iron, compound codeine tablets, antacids such as calcium carbonate and aluminium hydroxide, antispasmodics such as propantheline, anti-hypertensive drugs and ganglion blockers, drugs for Parkinsonism such as benzhexol or benztropine, and barbiturate sedatives, which for other reasons also are best avoided in the elderly.

Syndromes

Though constipation may occur in isolation or in combination with a great variety of symptoms certain syndromes (Table 2) occur sufficiently commonly in the elderly to justify mention.

TABLE 2

Some syndromes of constipation in the elderly

1. Anorexia, weight loss, lassitude—? growth
2. Mental symptoms
Confusion, restlessness
3. Urinary symptoms
Frequency, incontinence
Infection
Retention with overflow
4. Spurious diarrhoea, faecal incontinence
5. Intestinal obstruction

(1) The patient presents with *anorexia, weight loss and lassitude*, symptoms which give rise to the suspicion of a growth. Barium meal will exclude carcinoma of the stomach. Barium enema is often unsatisfactory as ordinary preparation fails to clear the loaded bowel, but if this eventually excludes colon pathology the incidental correction of constipation may result in improvement. However, this does not always happen.

Mrs K.C. aged 70 gave a history of a stroke 15 months before with two more recent recurrences and she had been bedfast at home for 6 weeks. I was called to see her for an attack of vomiting with constipation for a week and incontinence. She was admitted with a view to rehabilitation and regulation of bowels. She improved for a time and was able partially to dress herself and walk with a frame. However her appetite was poor and she persistently lost weight. Chest X-ray showed nothing significant and barium meal was also negative. Constipation remained as shown by palpable scybala in colon and rectum. This was treated with some success, but her general condition continued to deteriorate. Nortryptiline was given as she was thought to be depressed. She lost over 20 lb (9 kg) in weight in 2 months and we thought she must have a growth somewhere which we had not succeeded

in finding. She died of bronchopneumonia and post mortem showed no growth anywhere.

(2) Constipation may be associated with *mental confusion and restlessness* in the old person. The chronic discomfort of constipation may make her confused but unable to identify the cause, just as a baby will cry when uncomfortable from a wet nappy or projecting pin without being able to say what is wrong. Alternatively it may be that confusion from say a minor stroke will prevent the brain responding to the call to stool and so initiate constipation. Which comes first does not matter provided the association is recognized: improvement of mental function usually accompanies the treatment of constipation.

Mrs L.H. aged 88 had been forgetful for some months, disturbed and noisy at nights, but able to walk and dress until a week before admission when she took to bed with nausea but no vomiting. Since then she had become more confused, repeatedly getting in and out of bed, and had fallen on the stairs, causing bruising but no bone injury. On admission she was confused and restless, climbing over the cot sides. There was no significant finding except a doubtful plantar response, but she was very constipated. This was treated during the next few weeks and her mental state gradually improved, though there were relapses, one being associated with a chest infection. However she eventually became able to walk, dress and attend to her own toilet, and for the last 4 months has lived a normal social life in our convalescent hospital, helping other patients by doing little jobs for them. Her niece, remembering her former confusion and restlessness, refused to have her back so she has now to await a place in a Welfare Home.

(3) Constipation may present entirely with *urinary symptoms*. There may be frequency of micturition, incontinence and urinary infection for which antibiotic treatment will fail unless the constipation is also treated. Or there may be retention with overflow dribbling incontinence, commonly due to faecal impaction.

(4) *Spurious diarrhoea* from faecal impaction is well known in geriatrics but the inexperienced nurse is often misled. It is reported that the patient is dirty and constantly soiling with faeces. When I feel the faecal masses I insist on the nurse also putting on a glove and feeling them, and she marvels to find the patient constipated with liquid faeces escaping around the irritating scybala. Sometimes a single faecal mass forms a *ball-valve obstruction* which a patient of mine diagnosed herself. She was a very interesting case.

Mrs M.S. aged 83, living alone, was admitted one cold January day with accidental hypo-

thermia and a temperature of 87°F. She gradually improved but when a month later she was almost ready to return home she suddenly developed acute rheumatoid arthritis of hands with anaemia, raised ESR and strongly positive latex test. As this subsided she was depressed and preoccupied with her bowels, complaining that something came down and caused a stoppage. How right she was, for a ball-valve of solid faeces was doing just that! I broke it up and evacuated it, but a fortnight later Sister had to do the same again and in spite of treatment, twice more in the next month. She became more anaemic in spite of iron, occult blood tests were positive and a barium enema then showed an annular carcinoma of the descending colon just distal to the splenic flexure. This was removed by Mr Matheson with end-to-end anastomosis. A sacular aneurysm of the abdominal aorta, noted clinically, was confirmed at operation. She did well and went for convalescence but there had a stroke with left hemiplegia. She made remarkable recoveries from this and a recurrence 6 weeks later, but succumbed 2 months after that to bronchopneumonia. Post mortem showed the colon cancer completely cured but the pathologist added 'there is evidence of constipation'. Let us not imagine constipation is easily treated!

(5) Finally there are the cases sent in as *acute intestinal obstruction*, and sometimes even opened up by the surgeon.

Vicious circles

From the foregoing it may be seen that vicious circles (Fig. 1) may be set up both on the physical and mental side. Physically any debilitating illness may render the old person weak and often bedfast and constipated. Appetite is lost, resulting in further wasting, malnutrition and weakness. I think this occurred in the following case:

Mrs H.A.S. aged 85 had been living alone

Fig. 1. Vicious circles of constipation in the elderly.

and gave a history of anorexia, weakness and constipation similar to the first syndrome described earlier. Six weeks before admission she had a fall and went to her daughter's where she continued weak and ill with vomiting and diarrhoea. On admission she was dehydrated and emaciated with anaemia, skin pigmentation, glossitis and angular stomatitis. There were no clinical signs of carcinoma. The bladder was full and the rectum plugged with a mass of solid faeces, so the diarrhoea had been spurious. She was given fluids, complan, iron and vitamins and the bowels were treated with Senokot by mouth and Dulcolax suppositories. After temporary improvement she gradually deteriorated to her death. Unfortunately permission for post mortem was refused.

I postulate that when living alone she began to get constipated, her appetite declined and she did not get herself proper meals. Her daughter said that in all the 6 weeks she was with her she did not have her bowels moved properly, merely passing small quantities of liquid motion. Further anorexia and vomiting perpetuated a vicious circle of malnutrition.

Similarly on the mental side confusion, cerebral vascular disease or depression may lead to neglect of the call to stool and constipation. Chronic discomfort from this may aggravate the confusion, or pain from the fissure or piles may cause fear, and both may lead to further neglect of going to the toilet. Or there may be a crossover, as in the first case described (Mrs K.C.), arteriosclerotic dementia and depression causing constipation leading to anorexia and weight loss with suspicion of growth.

Treatment

The advantages of getting the elderly patient up, out of bed and active are many, but not least among them is management of the bowels (Table 3). It is essential for the toilet to be near, warm, comfortable, of suitable height, and with hand grips. Unlike younger age groups the elderly are not usually short of time.

TABLE 3
Management of constipation in the elderly

The toilet	Nearness, warmth, comfort, height, hand-grips
Diet	Fruit, vegetables, fluids
By mouth	Lubricants Bulk producers Stool softeners Laxative drugs
Per rectum	Digital examination Suppositories Small enemas (Large enemas)

The importance of *diet* was brought home to me by a paraplegic patient of mine.

Miss E.H. is now aged 62 and has been paralysed and anaesthetic from the groins down for 30 years from a pathology never established at the time, but there was a previous history of tuberculosis. Fortunately for her the sacral nerves supplying bladder and rectum escaped so she retained control. She was, however, very constipated, with bowels that could only be persuaded to act with difficulty with regular aperients. She developed a resistant anaemia which was found to be due to chronic renal disease. Blood urea in June 1966 mounted to 480 mg and she was put on treatment which included a Giovanetti diet containing much fruit and vegetable. From then on bowels acted daily and were no problem. Latestest blood urea incidentally is 38 mg but anaemia persists.

Specific measures divide themselves into those given from above and those from below. There are various categories of substances given by *mouth*. Of *lubricants* liquid paraffin is typical, but disadvantages of long-term usage are well known; lymphatic blockage, interference with absorption of fats and fat-soluble vitamins, and the discomfort of anal seepage.

Bulk producers whether from Psyllium seeds or Sterculia, such as Normacol, or cellulose derivatives such as methyl cellulose (Cellevac) or hydroxyethyl cellulose (Prepacol) have their uses in colostomy management or preparation for X-rays, but when the aged bowel has already become insensitive the further bulk seems only to add to faecal distension. However they have a place in treatment.

Stool softeners or wetting agents are useful in breaking up faecal masses in chronic constipation. Dioctyl sodium sulphosuccinate is the agent in Dioctyl Medo and Norval, poloxalkol in Dorbanex. These are usefully combined with the anthracene laxative danthrone in Normax and Dorbanex. The former is only in capsules but if these are found difficult to swallow liquid Dorbanex is useful.

I will not attempt to describe all the various *drugs* that have been used to treat constipation. Gone are the days of castor oil or rounds with large bottles of black and white mixtures. The only two laxatives we use in our Geriatric Unit are Senokot, the well known standardized senna preparation, and bisacodyl (Dulcolax). Both are thought to act after absorption by stimulation of Auerbach's plexus in the large intestine, and both are useful. They are best given regularly daily, the dose being gradually increased until the desired effect is obtained and then gradually re-

duced. However, I am afraid the practice of giving them intermittently in purgative doses still goes on.

Of all the *agents used from below* I would put first the exploring finger. There are well known aphorisms stressing the importance of the rectal examination. The presence of faeces in the rectum of a patient unaware of the fact is diagnostic of constipation, and the consistence—whether hard or soft—gives us further information. Digital evacuation of a loaded rectum results in surprise, relief and gratitude from patient and relatives, but this is only a beginning. Nursing staff who traditionally preside over the patient's bowels should be taught the technique of painless rectal examination—pressing backwards with the flat of the well lubricated finger before inserting the tip inwards—so that progress of treatment can be regularly checked. I recently discovered faecal retention with overflow in a patient in one of my wards. In spite of my instructions treatment was *not* given daily and progress was *not* checked. I found the condition unchanged a fortnight later and had to do a digital evacuation.

Enemas are not used routinely in our wards. The small Fletcher's enema has its advocates, and some use warm olive oil or glycerine. In general they have been replaced by *suppositories* and we prefer the bisacodyl (Dulcolax) suppository. Staff should be instructed not to push it into the faecal mass but to insert it in contact with the rectal mucosa so that absorption can take place. Some like a glycerine suppository, or a moistened Beogex suppository which produces carbon dioxide with explosive effect.

Our routine is either Senokot, Dulcolax or Dorbanex at night followed by a Dulcolax suppository in the morning until regularity is achieved, attention being paid, of course, to diet and fluids.

I would stress in conclusion that the treatment of established constipation in the elderly requires a course of daily treatment and is not just a matter of an occasional aperient or enema from the District Nurse. With faecal incontinence it is worth much effort to make the patient socially acceptable again by re-educating the bowel to function at convenient times. It may take weeks rather than days of regular treatment and supervision and even then one may not be successful as the following case shows:

Mrs L.K. a woman of 82 had taken to bed a month before admission complaining of pain in the back and legs and inability to stand. She was cared for by an 89-year-old husband who found it difficult to help her to the commode. She was thin, weak and anaemic with low blood pressure

and oedema of the feet. Faecal masses were felt per abdomen and per rectum and there was a sacral pressure sore. Haemoglobin was 9.0 g the blood film showing both macrocytosis and iron deficiency change. There were no neurological signs of sub-acute combined degeneration. Lumbar X-ray showed osteoporosis and osteoarthritis. She was given Neo-Cytamen 1000 μ g daily for 5 days, Fersema, Senokot at nights and Dulcolax suppositories in the mornings. Though there was a reticulocyte response of 12% the haemoglobin went down to 8.0 g and she developed a chest infection treated first with a course of tetracycline. When sputum grew penicillin sensitive *Staph. pyogenes* she was given penicillin. Meanwhile her general condition deteriorated and her pressure sore was worse. There was a

large mass of presumed faeces in the descending colon with a distended bladder needing a catheter, and a rectum overflowing with spurious diarrhoea. Several attempts were made at digital evacuation and Dulcolax suppositories were continued. She lingered on in a pathetic state and died 6 weeks after admission. Post mortem showed as expected widespread bronchopneumonia. The upper alimentary tract was normal. The descending and sigmoid colon and rectum were enormously dilated by impacted faeces, the total mass like a rugby football measuring $12 \times 9\frac{1}{2}$ in (30×24 cm). There was no organic cause of obstruction. Pressure of the faecal mass had caused bilateral hydronephrosis. Our treatment of constipation had to admit defeat!