

schistosomiasis which were examined at autopsy or in 50 cases of schistosomiasis mansoni examined sigmoidoscopically. This variation in findings is probably due to the fact that hyperinfection is so constant in Egypt.

### Summary

Sigmoidoscopy is an essential aid to diagnosis in the routine investigation of patients complaining

of symptoms referable to the lower intestinal tract or rectum. Its limitations must, however, be clearly realized and all further auxiliary aids to diagnosis such as repeated examinations and cultures of stools must be carried out. If the sigmoidoscopy is negative and the history warrants it, a barium enema using preferably the double contrast method is advisable as the next stage in the investigation of a difficult case.

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## COLOSTOMY: THE PATIENT'S POINT OF VIEW

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There are many surgeons who believe that to be left with a permanent incontinent abdominal anus is for most patients an almost insufferable burden, and use this as their main argument in support of the sphincter-saving operative procedures. Close enquiry is necessary to test the validity of their belief, for their argument, if true, must carry much weight in favour of the less extensive resections. Every surgeon who practises abdominal surgery must surely have some idea of the disability which a permanent colostomy involves, but his impression will depend in large measure on the social group to which the majority of his patients belong. It is also probably true that he tends to remember only his more successful cases. He can contentedly enumerate the ones who are happily at work in the most arduous or the most responsible occupations, the fate of the less fortunate remainder being conveniently forgotten. Few studies have been made of large numbers of colostomy patients, a notable exception being the follow-up of 100 St. Mark's cases reported by Cuthbert Dukes in 1947. His impressions were on the whole favourable, but one felt inclined to attribute this happy state of affairs to an excellence of practice in this highly specialized clinic which

was unlikely to be rivalled in the average general hospital.

It was for this reason that in company with the hospital almoner we visited 20 of our old colostomy patients in their own homes. They were selected only by the accident of their living within easy reach of the hospital. They all belonged to what we have hitherto called the 'hospital class,' and of this group they can, we believe, fairly be taken as an average cross-section. As a former council hospital, we have probably admitted for treatment rather more of the elderly and indigent than would be the case in an established voluntary hospital. The youngest was 42 years of age, the oldest 79; the average age of the whole group was 65. The colostomy was in every case a permanent one. As Lahey (1946) has pointed out, the bad impression which many surgeons have formed of the results of the operation may well be due in part to the unhappy experience of the average patient with a palliative colostomy. His troubles are, of course, largely due not so much to the colostomy itself, as to the continued presence of the rectal neoplasm. In every one of our cases an attempt had been made to remove the primary growth, although subsequent events have suggested that at the time

of our examination at least a few of them were, in fact, harbouring recurrent disease.

Many of the patients could be said to be truly 'experienced' in colostomy management, the 'oldest' having had her abdominal anus for 10 years, the 'youngest' for just under 1 year. The average duration of colostomy management for the whole group was 3 years. We took pains in each case to examine the colostomy and to record the details of its day to day management; patients were often proud to show their own particular tricks and gadgets which experience had taught them to be valuable. The hospital almoner made discreet enquiries about the household budget and endeavoured to estimate the economic and social hardship resulting from the operation.

### Capacity for Work

Of the male patients only five were under 65 at the time of the operation, and four of them had since returned to productive employment (one not to his old job of boot-repairing but to the equally remunerative one of news vendor). Of the seven who were 65 or over at the time of operation, three had already stopped working; the remaining four had not returned to work after their illness, but it seemed likely that it was age and the serious nature of the operation, just as much as the disability of colostomy which had been responsible for a premature retreat.

The older men could reasonably be said to be enjoying the normal life of a retired artisan, pottering in his home, doing odd jobs in the garden and seeking the comfort of his pipe on a bench in the nearest park.

Two of the eight women were bed-ridden, but one of them was 79 and the other was incapacitated by causes other than her colostomy. The remainder were usefully employed housekeeping, although often under the care of a grown-up family.

It seems not unlikely that in our assessment of the discomforts of colostomy, the overall picture may be somewhat distorted by the inclusion in our small series of a large proportion (seven out of 20) of colostomies at a relatively high level.

### Diet

The laxative action of certain common food-stuffs is of no great moment in the presence of a full length of colon and a normally-functioning sphincter, but with a colostomy it becomes a matter of much concern. Most colostomy patients find it necessary to select their food with care and to restrict its choice in varying degree.

Three of our patients were able to tolerate a full, normal diet. Of the remainder, the great

majority could eat almost anything with the exception of some fruits and vegetables which they were careful to take in only moderate quantities. Eating either in larger amounts was almost certain to precipitate a bout of uncontrollable diarrhoea. Strict avoidance of onions was almost the rule, but in relation to other vegetables, fruits and salads, there seemed no great variation in tolerance from one patient to the next. Other individual peculiarities were noted in having to avoid jam, savoury foods, fried fish or pastries.

Only two complained bitterly of the severe restrictions in diet which their colostomy made necessary. They were among the most intelligent and fastidious in the group, and each had only one or two bowel movements per day. Not only did they studiously avoid all fruit and vegetables, but all rough foods yielding a high residue of unabsorbable cellulose. Each was resigned to a rather monotonous, unvarying diet as a necessary condition to the avoidance of recurring diarrhoea. As one of them put it, 'It is the only way to have complete confidence.' It was for each a real hardship and the chief burden of a colostomy which they found somewhat difficult to endure.

Every patient had, on discharge from hospital, been warned of the upsets which might follow the taking of fruit and the like; many, in fact, had already had such experiences in hospital. Dietary adventures in the early weeks at home had, however, led often to more seriously disconcerting attacks of diarrhoea, often to the accompaniment of the distress and embarrassment of soiled clothes and bed linen. With the bitterest memories of this early humiliation, whichever food was held responsible for the attack was often thereafter proscribed for ever. The average patient was reluctant to try again, being not unnaturally fearful of a recurrence of the earlier disaster. The wiser had, however, by a careful process of trial and error selected the kind and amount of the 'difficult foods' which experience had shown them they could safely tolerate. Foods which, taken in the earlier months were always followed by diarrhoea, were taken later with no ill-effects.

Many patients came away from hospital with the impression that they could never again eat fruit, jam, vegetables, salads, nuts and a variety of other rough foods. The restriction of their diet was no more than a careful observance of what they believed to be a hospital instruction.

Tolerance of alcohol seemed to vary considerably; most of the old men could safely take their customary evening glass of ale.

Our impressions of the dietary troubles of this group of colostomy patients were as follows:

A colostomy in most instances involves some

restriction in the variety of the diet, the reward for care in this respect being freedom from frequent colostomy action. For some the dull, unvarying diet which follows complete abstinence from the more 'dangerous' foods, is a source of considerable hardship. The continued avoidance of many foods is due in some cases to hospital instructions while in others it dates from a severe attack of diarrhoea in the early weeks, for which a particular food has been held responsible. It seems not unlikely that by more careful instruction and by more continuous supervision especially in the early months, many of these dietary difficulties could be avoided.

### Complications

A colostomy can give rise to other troubles, such as prolapse, hernia, skin stenosis, bleeding, polypi and intestinal obstruction. Some of these were noted in our cases, but none gave rise to symptoms for which the patient had at any time thought fit to seek advice.

In 12 there was some degree of bulging of the abdominal wall in the region of the colostomy. This was often considerable, amounting to a large swelling with a colostomy perched on its summit. In one it was the size of a foetal head. Skin stenosis of a moderately severe degree was present in one instance, and in this case the hernia was obviously interstitial, but in many of the others it was difficult to decide whether there was a true hernial sac or merely the diffuse bulging of weak and paralysed muscles. Prolapse was present in six cases, but it amounted to the appearance of only a few centimetres of bowel, sometimes the efferent loop, sometimes the afferent and, in one case, both. Its control was easy by a dressing alone and in no patient had there ever been any difficulty in reduction.

There was slight excoriation of the skin around the colostomy in two cases of a degree sufficient to cause some bleeding on the dressings.

Severe recurring diarrhoea is a commonplace in the early days. One patient described his first three months after operation as being, for this reason, a 'nightmare.' All had the liveliest memories of the difficulties of these early weeks, but as time went on diarrhoea in almost every instance followed a dietary indiscretion.

Constipation was complained of by none and the necessity of taking any form of aperient was distinctly uncommon.

### Management

We were dismayed and not a little humiliated to find that many patients had left hospital with

few instructions to help them in the trying initial period following discharge. Each had in the fullness of time worked out his or her own salvation with a varying measure of success, having to endure in the process a good deal of mental and physical discomfort which we should have been able in large measure to prevent.

The majority were content to leave the bowel undisturbed and only four had adopted a wash-out regime, twice or only once a week. None of the risks attendant to the practice of the self-administered colon wash-out had so far been encountered, but the manoeuvre had proved to be most time consuming (taking in one case  $1\frac{1}{2}$  hours or more). Each of them seemed to experience the same difficulty in that on having completed the whole performance and adjusted the dressings, the first step frequently precipitated a further return of faeculent soap solution. Two of the four were among those to whom the colostomy was proving to be a source of considerable worry and discomfort, but in each the factor responsible might equally well have been the siting of the stoma in the transverse colon.

The remaining majority were content to let the colostomy act in its own time and there was no question that they fared better than their fellow-sufferers who carried with them habitually a bulky douching apparatus in company with which they spend many (no doubt unhappy) hours each week in the bathroom.

We found that colostomy patients were, in general, extravagant with dressing material, a habit which most of them had no doubt learned in hospital. Cotton-wool, lint and gauze were used in vast quantities and the burden of the cost of these materials, amounting in some cases to as much as 10s. or 12s. a week, had been in the days before the introduction of the National Health Service, a cause of considerable financial hardship. An immediate dressing of ointment to the colostomy was popular. Paper or wood-cellulose were used as dressings by only a few; the remainder used varying amounts of gauze, lint, gamgee, wool, jaconet and oiled silk.

Disposal of the dressings causes little concern when the patient enjoys the privacy of his own home. Burning in the kitchen grate is a common practice, the less bulky dressings being tipped into the lavatory pan. For the patient living in a single room in a lodging house, anxious as he usually is to keep his secret from the other inmates, the problem of disposal is often very difficult. One of our patients always kept paper and sticks handy so that he could burn the dressings in the open grate, and a second when away from home carried a bottle of methylated spirit for the same

purpose. In fact, the difficulty of disposing of soiled dressings becomes for every sensitive colostomy patient the cause of considerable anxiety and makes him unwilling to leave home.

A great variety of appliances was in use to control the dressings. The minority wore and like the type of colostomy belt supplied by the hospital—a clumsy contraption of canvas, often with a gusset of rubber opposite the stoma, secured by a row of untidy belts and buckles, difficult to thread and difficult to adjust. Two, however, got from the wearing of such a rigid belt a feeling of security which was absent with any other appliance, and they would never risk venturing out without one. An outfit consisting of two or three many-tailed bandages was also popular. This allows for easy laundry but, in common with an ordinary bandage, it is difficult for even a young subject to adjust and secure unaided in the erect position. An ordinary bone corset was satisfactory for several of the women and this was usually applied over a minimum of dressing. Elastic pressure, applied by a girdle of garter elastic adjusted across a square of cardboard was enough for an elderly but active bricklayer, and among the most satisfactory appliances which we encountered was an adaptation of the woman's roll-on suspender belt which is easy to adjust and, because of its two-way rubber stretch, controls the colostomy most adequately. It needs no adjustment by belts, tapes or buckles and is washable, light and comfortable. Home-made binders or simple old-fashioned cholera belts were also popular.

### Social Life

Colostomy patients have been described as 'veritables esclaves de la société' (d'Allaines, 1948). If this is so, then their lot of social ostracism is indeed an unhappy one, and a strong argument in favour of its avoidance at all costs. Only one of our 20 patients was confined to the house, and this was due to causes other than her colostomy. Four said they were afraid to go far from home for fear of an accident; their activity was restricted to a short excursion to the first seat in the nearest park. Although fearful of the embarrassment of an uncontrollable colostomy action when out of reach of the privacy of their own home, it was interesting to note that not all of them had, in fact, had this unhappy experience. However, it is certainly true that to a sensitive man the dread of such a happening is indeed a heavy burden. Many of them seldom ventured far from home as, for example, to visit friends or relations, to do shopping, or in search of entertainment, but many were old and unlikely to do any of these

things even when well and unhindered by a colostomy.

Visits to the cinema were not common; a stay of two hours or thereabouts in the darkness and comparative quiet of a crowded cinema is a severe test of colostomy function.

Many were reluctant to spend nights away from home unless at the houses of near relations. The more venturesome had been to seaside boarding houses, but they liked to know beforehand what amenities were available, and several had enlisted the sympathetic help of an indulgent landlady. The problem of having, as Dukes puts it, 'undisputed possession of the bathroom' is one of the main difficulties of living away from home, and the disposal of soiled dressings is another.

One of our patients had gone to France on holiday and a second had taken his family to a holiday camp, which must surely offer only the most limited amount of privacy.

It was our impression that without question the social life of the average colostomy patient is restricted. He never feels quite so safe as when within the four walls of his own house, surrounded by people who 'know the secret' and 'understand' his complaint. As Dukes has pointed out, the most fortunate are those with a home and a wife or a husband; for the old lodger in a single room it is a great burden.

Mailer, in a recent contribution on the merits and demerits of a sphincter-saving resection, suggests that an abdominal anus is often an intolerable hardship to the elderly. He believes that this might be used as a strong argument in support of strenuous efforts being made in its avoidance, even if the practice lessens the chance of ultimate cure.

In general, the younger and the more intelligent the patient the less troubled he is by his colostomy. Perhaps just as important, the higher his social status, the easier is his lot, plenty of time, plenty of room in a good bathroom and a large measure of privacy make the life of a colostomy patient much easier. One of our patients living in such surroundings was able to enter fully into the bright social life of her 18-year-old daughter from whom she had so far been able to keep the secret of her disability.

In considering the social life of the colostomy patient it is important also to remember the people with whom he lives. We found in the course of our visits to patients in their own homes that provided their standard of personal cleanliness and hygiene was reasonable (and this appeared to be so in every case) we were able to detect from a close range in very few cases the slightest trace of a faecal odour, and then only of a degree likely to prove repellent to the most

sensitive. This cannot be said to be true of the average patient with a suprapubic cystostomy. It was, however, true that in some households the greater part of a small bathroom or bedroom seemed to be taken up with the colostomy impedimenta and it was often apparent that in the smaller household it was clearly the most important of all domestic happenings. The amenities available in the average dwelling in our district of London seemed, however, to be adequate.

### Conclusions

From consideration of so small a group of cases one is not entitled to draw conclusion but may reasonably form certain impressions.

The early weeks of a colostomy life are very trying and much can be done by careful training while in hospital and by sympathetic and continued observation after discharge, to prevent and to alleviate the distress which it then occasions. As experience widens and as the colon acquires new habits and tolerance, so life becomes easier. Occasional bouts of diarrhoea seem almost inevitable, but a careful watch on the diet can help to lessen their frequency. Although patients seem to vary much in their experience with different articles of food, some restriction in its choice is almost invariable and its monotony may be a cause of real hardship. Here, again, adequate supervision can be of great help.

A transverse colostomy is much more troublesome than a sigmoid colostomy, chiefly because of fluid bowel movements by night. Although the minor complications of colostomy such as hernia and prolapse are common, when only mild in degree they seem to cause no trouble.

Wash-outs seem to be a nuisance, to be time-consuming and to do little good.

Even old men and women are quite able to undertake the dressing of a colostomy. The lighter and the more elastic the belt the better. Clumsy, expensive corsets and bulky dressings give no more security and appear unnecessary.

The earning capacity of these patients is not necessarily seriously impaired. Its presence is certainly compatible with hard manual work. Many of the patients are old and the operation often leads to their giving up work, but it does not deny them the full enjoyment of the ease of retirement; often the colostomy seems for many of them to become the most important thing in their life—the same might equally be said of the fitting of an artificial limb.

Their social life tends to be restricted but they by no means suffer the trials of complete ostracism. Many have lost the confidence to visit away from home, but for most this is no great hardship.

For the younger and more intelligent, and

especially for the patient who has his own home, colostomy is no great burden and its presence is no bar to the enjoyment of a full life; for the lonely old man who does not enjoy the privacy of his own home things may be more difficult, but he is seldom miserable.

It is possible at all ages and in all walks of life, despite a colostomy, to lead a vigorous and contented existence.

Cuthbert Dukes (1947) summarized his experience from a survey of 100 colostomy patients by saying ' . . . that many keep in good health, lead useful lives and seem to be little handicapped by colostomy.'

Lockhart Mummery believed the disability following colostomy to be 'surprisingly little,' and found that most of them had no inconvenience at all and were able to travel, shoot and play golf as normal folks. Pfeiffer, in 1937, said he believed with good reason that 'the chief and most vociferous objectors to colostomy are those who do not have them and do not need them to survive.'

Milligan (1945) has pointed out that the 24-hour rhythm of the healthy bowel depends not on the rectum but on the colon and that the same rhythm or regularity of bowel action can be attained with a colostomy. 'We cannot control a colostomy, but it can be controlled.' Two of his patients with an unfavourable social environment were driven to suicide, and he has stressed the importance of inspiring the right mental attitude in which fear of accidents and self-pity have no place.

Lahey (1946) from his own wide experience, is convinced that colostomy patients get along very well, while admitting that they need four to six months to become accustomed to a constipating diet, to learn what liberties can be taken, and to allow healing and shrinkage to occur. McLanahan and Gilmore (1948) studied 40 colostomy patients, private and hospital, old and young, white and coloured; they found that some months were required before the colostomy got going properly, but that after this interval 27 of the 40 had satisfactory control, the remainder admitted to a feeling of insecurity, wore a bag and suffered considerable restriction in their activity, while three seemed mentally to have failed to adjust themselves to colostomy.

An anonymous physician in the columns of the *Lancet* (1948) said he could do anything with his colostomy he could do without it and that even staying at a hotel, provided it had a bathroom and W.C. combined, presented no difficulties. Nielsen (1949) in a survey of 125 colostomies found that approximately 85 per cent. of the patients (who came from all classes of society) had after the first few months little or only moderate discomfort. He found that 16 patients after operation were in-

clined to pass more or less liquid stools, a complication which was said to be 'tolerable' in some and to cause 'serious disability' in a few. All of these patients had before operation habitually passed fluid motions and it was felt that such a history should encourage one to take great pains to avoid a colostomy.

Although most of the opinions mentioned above

have been given as evidence in support of the radical types of operation, it can be fairly concluded that the lot of the average colostomy patient is by no means an unhappy one, and that an alternative operative procedure which attempts to spare him this disability must not be allowed in any way to diminish his chances of continued survival.

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## THE RELIEF OF PAIN

By A. J. GLAZEBROOK, M.D., M.R.C.P., and FRED WRIGLEY, M.R.C.S., D.I.H., M.P.S.

'Pain is perfect misery, the worst  
Of evils; and, excessive, overturns  
All patience'—(Milton).

A drug which afforded complete relief from pain without other action would be an inestimable boon to humanity. Pain has always been the predominating symptom in diseases of man; it is therefore not surprising that the science of analgesia is of great antiquity. References to it are found in all the early schools of medicine, the Chinese in 500 B.C. and afterwards in the Persian, Indian and Greek. Preparations were made from mandrake, hellebore, poppy, hemlock, henbane, mulberry, lettuce and hops, and while the concoctions were made heroic they were often useful.

During the dark period of the Middle Ages the art of medicine fell into the hands of the Church, and no advances in analgesia were made; indeed, uncertainties as to the preparation of opium mixtures often led to fatalities. This, coupled with religious objections, caused them to fall into disuse. In the 17th century we find Nicholas Bailly, a French barber surgeon, being accused of witchcraft because he prescribed opium, and a law was passed in France banning its use.

In course of time opium came to be recognized as the only potent analgesic and it retained this place until comparatively recently. Sydenham said that without opium the healing art would cease to exist, and while this is not true today there can be few doctors who would care to be without it or its derivatives for their practices.

The first real step forward since the time of the Greeks was the isolation by Sertürner (1806) of morphine and the recognition that it was the main

analgesic alkaloid in opium. This isolation of the alkaloid enabled standardized preparations to be made which could take the place of the unreliable tinctures previously used. More confidence could be placed in the prescription of the drug and its clinical applications were increased.

In 1876 MacLagan argues that as quinine was obtained from the cinchona tree found in malarial areas, nature would undoubtedly provide a specific for rheumatism in areas notorious for this complaint. This led him to investigate extracts of the willow, and in this way he hit upon salicin. The fact that salicylates had analgesic properties was soon seen, and in 1889 aspirin was produced commercially and rapidly became a household analgesic and antipyretic. Further research into aniline derivatives produced an impressive array of pain-relieving compounds, the two most important groups being those derived from aniline and the closely-related phenetidin such as acetanilide and phenacetin, and those derived from pyrazol such as antipyrin and amidopyrin. Aspirin administration has recently been helped by the discovery of a stable soluble calcium salt.

All of these products have an undoubted pain-dulling action, but the extent of it is not to be compared with that obtained by the opiates. In view of their relatively weak analgesic action, Fourneau (1938) suggested that they be separated from true analgesics and called antalgics. Until quite recently they furnished the only class of totally synthesized pain relievers.

Attempts were also made to improve opium and morphine preparations. These took two main lines—the purification of opium to obtain a