ULCERATIVE COLITIS OF PSYCHOGENIC ORIGIN: A REPORT OF SIX CASES*

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Thanks to the teachings of our best clinicians and psychiatrists for the past two decades, most physicians appreciate the rôle played by psychic disturbances in many symptom-complexes. In the field of gastro-enterology the necessity for a complete understanding of the patient's emotional life is especially important. Alvarez, in his excellent book on "Nervous Indigestion", reviews the ways in which emotion can affect the digestive tract. He reminds us that references to the purging effect of fear or anxiety may be found as early as 700 B. C. when Sennacherib, in describing his battle with two young kings of Elam, noted that, "Like young captured birds they lost courage. With their urine they defiled their chariots and let fall their excrements."

Many present-day gastro-enterologists have estimated that more than half of their cases are suffering from emotional or "functional" disturbances and only 25 to 45 per cent suffer from organic diseases of the gastro-intestinal tract. When we can find no organic basis for a symptom-complex we call it "functional" and try to place the blame on emotional stresses and strains. We hear very little, however, of the rôle played by emotion in the causation or symptomatology of organic disease. When we are able to make a diagnosis of peptic ulcer or chronic ulcerative colitis, we are apt to feel perfectly satisfied and rarely consider the emotional life of the patient. The physician who feels that symptom-complexes can be divided into two separate groups, one psychic and the other organic, which never overlap, will fail to recognize many of the most interesting situations which his patients present.

There seems to be no doubt that psychic trauma may be the initiating factor in certain cases of organic disease. Clinicians have noted for years that a severe mental shock may be the precipitating factor in the onset of such diseases as thyrotoxicosis, diabetes mellitus and asthma. Peptic ulcer, ulcerative colitis, and, perhaps, other gastro-intestinal diseases may likewise be related to severe emotional crises. The purpose of this paper is to report six cases of

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ulcerative colitis which seem to be directly related to emotional difficulties.

Our interest in the etiological relationship between psychogenic disturbances and ulcerative colitis was aroused by an article by C. D. Murray on "Psychogenic Factors in the Etiology of Ulcerative Colitis and Bloody Diarrhea", which appeared in the American Journal of Medical Sciences in August, 1930. In this article the author discussed four cases of bloody diarrhea in which emotional difficulties played a definite etiological rôle. His second case, *M. McA.*, resembled in many details a patient who had recently (July, 1930) been admitted to the New Haven Hospital with the diagnosis of amebic dysentery. Investigation showed that the two were identical, our patient having been seen by Dr. Murray at the Presbyterian Hospital in New York in 1928. We are presenting a report on this patient (Case I) and five additional cases.

CASE I

A married woman, age 33, admitted in July, 1930, with a complaint of chronic amebic dysentery.

Abstract of present illness: Six years prior to admission, the patient began having attacks of diarrhea, which occasionally were blood-streaked. For four years she continued to have four or five soft stools daily. She consulted a physician in New York who treated her for constipation. In 1927, bloody diarrhea, accompanied by severe abdominal cramps, appeared. In 1928, the number of stools had increased from five to fourteen to twenty a day. Another physician was consulted, who was said to have found *Endameba histolytica* on stool examination. The patient was given emetine and ipecac with no result except severe nausea.

The patient entered the Presbyterian Hospital in New York in May, 1928. Physical examination at that time was essentially negative. Laboratory examination revealed a moderate secondary anemia (hemoglobin 68%, red blood count 4.3). Stools contained blood and pus but no mucus. Proctoscopic examination revealed multiple ulcers of the rectal mucosa.

The patient was given yatren by mouth and rectum—41 grams in 2 weeks, without beneficial results. She was also given large doses of stovarsol, following which diarrhea and cramps disappeared, but an arsenical dermatitis developed. She was discharged, improved, two weeks later.

Shortly after her discharge, in July, 1928, the patient was married and three weeks later the bloody diarrhea returned to the extent of thirty stools a day. She entered the Providence Hospital, in Holyoke, Massachusetts,

where she remained for several months. Emetine and quinine were first given, with slight improvement. Later, stovarsol was given with no untoward results. At the time of discharge, the patient had gained weight and her condition was improved.

There was no return of symptoms until September, 1929, when bloody diarrhea and cramps reappeared. The New York physician was again consulted, who gave another course of stovarsol. Following its administration a severe arsenical dermatitis developed. The patient was then given in succession—ipecac, emetine, quinine, bismuth and iodine intramuscularly; silver nitrate and sodium perborate enemata. No improvement was secured with any of these. The patient spent January and February of 1930 in a New York hospital without much change in her condition.

In April, 1930, she moved to Hartford, Connecticut, and shortly afterward entered the Hartford Hospital. Physical examination was essentially negative. Stool examination revealed no amebae, but Bargen's diplococci were isolated. Examination of the blood showed a marked secondary anemia (hemoglobin 37%, red blood count 2.6). X-rays indicated the presence of an old tuberculous process in the right chest.

The patient was given three large blood transfusions and a course of Bargen's vaccine. She was discharged at the end of two months with her condition somewhat improved.

One month later, she entered the New Haven Hospital because of a return of symptoms.

Physical Examination: Temp. 101. Pulse 110. Resp. 20. Weight 103 lbs. Appears chronically ill. Examination essentially negative except for slight tenderness in the right lower quadrant. No spasm. No masses.

Laboratory Findings:

Blood: R.B.C. 4.2, Hgb. 75%, W.B.C. 6900, polys. 63, lym. 29, monos. 8, Smear negative.

Urine: Negative.

Kahn: Negative.

Stool: Bloody, guaiac 4 plus. Microscopic, many pus cells, no amebae seen.

Blood Culture
Serum Agglutination } Negative.
Stool Cultures

Gastric analysis: Demonstrated free HCl.

X-ray Examination of the G. I. Tract: Showed evidences of extensive ulcerative colitis.

X-ray Examination of the Chest: Showed no evidence of pulmonary tuberculosis.

Emotional Factors and Course in the Hospital: The following psychoanalytical study of this patient is taken verbatim from Dr. Murray's article.

"The first conference with this patient revealed very little except that when she was four years of age her mother died of pneumonia. She was pleasant on all other subjects but touchy about her personal history. 'I have supported myself since I was seventeen', she would reply, 'and my family affairs have nothing to do with the case'. Finally, however, she abandoned her resistance and gave the following history.

"Three years ago her men friends in the office tried to plan a match for her with another officer of the company. Without having much affection for this person, she did, however, go out with him several times and the thought of marriage as a possibility occurred to her for the first time. Soon after, the duration of her menses diminished to two days and she noticed blood in her stools. She was afraid that the blood was a symptom of cancer, nor would she accept the reassurance of several doctors, none of whom, she thought, took her fear sufficiently seriously.

"Two years later she met another man to whom she promptly became engaged during the Christmas season. They planned to get married 'in about a year', although there was no tangible reason for such a long engagement. During that year her menses diminished to one day. The year wore on and a few weeks before the following Christmas, she returned from an extensive trip. Her sweetheart met her. He had looked up several apartments which he wished to show her, but she could take no interest in choosing between them. She was whole-heartedly in love, but no definite day had been set for the wedding and she was tending to put off the event more and more. Meanwhile, after her return, her colitis became suddenly worse and a few days before Christmas she went to a doctor for the first time during that year. She was having eight stools a day and was beginning to have cramps, and was admitted to the hospital.

"The psychologic background of her case is interesting, not in its novelty, but as a classic. From what has been said, the possibility suggests itself that her fear of cancer derives its exaggerated mental energy from a fear of having a child. When questioned about this she said that the thought of childbirth was, in fact, a mortal fear—she was sure she would die if she had a child. At first she could not account for this. She said she knew practically nothing about sex or childbirth until three years ago. She was asked to think about this problem—how death and childbirth had become so indelibly associated in her mind, but it was not until the following day that she remembered that her mother's death from pneumonia (?) had occurred two weeks after the birth of the patient's youngest sister. She had never thought of that before!

"Her aversion to marriage, partly unconscious, also involved a fear of sexual relations, and this fear was likewise indefinitely conditioned. The patient was the fourth child in a family of six. After the mother's death, the father engaged a neighbor to come in as housekeeper, and when the patient was about five years of age, the father married the housekeeper. She was a jealous woman—the children would not kiss her and so she forbade them to kiss the father whom they adored. When it was pointed out to her that this wound had come about exclusively through the sex factor—that is, the marriage of the father—she declared, 'But that wasn't the worst blow', and then recounted the following story.

"When she was about seventeen years of age, her older brother, by that time the only one of the older children still living at home, went away for four years in the navy. She had not been unduly attached to this brother, but during his absence the two had a very voluminous correspondence. In due time the brother returned full of plans to buy an automobile, build a garage, and so on. He was welcomed by his sister as a savior. She and her two younger sisters had borne the brunt of the stepmother's nagging for four years. The first day after his arrival they measured out the site for the garage. But the dreams were not to come true, for within a month the brother was engaged to the stepmother's cousin—a woman ten years older than himself—who 'had made a dead set for him, vamped and mothered him.'

"The patient never spoke to him again. For a while she would lock herself into her room when the brother was home, and he would plead with her through the door. One one occasion he told her that in his four years' service he had not had intercourse. This remark increased her fury—it was the first time she had ever heard the word, but she said she sensed its meaning right away. Soon after this she left home for good. This episode is clearly a repetition in its essential details of the earlier psychic trauma. Again sex had robbed her of what she cared for most."

The subsequent history as elicited from the patient during her stay in the New Haven Hospital revealed that shortly after leaving the Presbyterian Hospital, she married the man to whom she had been engaged. Three weeks later bloody diarrhea returned. From that time until her admission about two years later, she was never free from symptoms for any considerable time. It was during this period that she entered hospital after hospital in an endeavor to regain her health. But, although her condition would improve temporarily, her weight loss and anemia gradually increased.

Having discovered the psychic background of the patient from Dr. Murray's article, we proceeded to investigate the case and eventually discovered further factors which had come to play a very significant part in prolonging the patient's condition. It has been mentioned that the patient had an exaggerated fear of having a child. When questioned as to the source of this fear, she spoke not only of her mother's death shortly after the birth of her sister, but also revealed that one of her doctors had stated that her prolonged illness would make normal childbirth impossible. She inferred from what he said that she would either die in childbirth or bear an abnormal child. The situation became further complicated after her marriage since, because of religious convictions, neither she nor her husband would use contraceptives. Consequently, because of the patient's intense fear of childbirth, they never had intercourse although they had been married for two years and were very much in love with each other.

With these facts as a basis, it was decided that the best sort of therapy would be to get rid of the fear of pregnancy, if possible. Accordingly, a gynecological examination was made and, as a result, the patient was assured that she was fitted to bear normal, healthy children. The patient and her husband were given several books on sex education. From the time that

she became convinced that her fears were groundless and that she could lead a normal marital existence, her physical condition began to improve with the

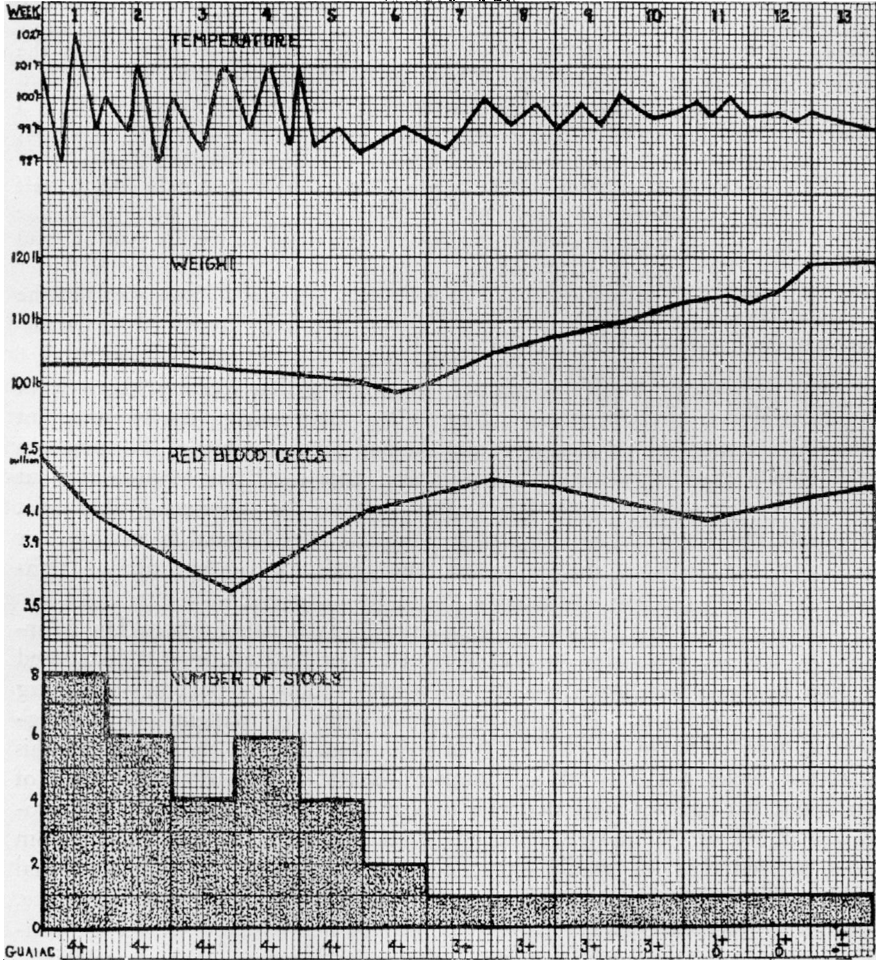


Chart showing the course of Case I during the stay in the New Haven Hospital. A low-roughage, high-vitamin diet and kaolin by mouth constituted the only medical therapy. Psychotherapeutic procedures were instituted during the fourth and fifth weeks.

result that when the patient left the hospital she had gained 22 pounds and was markedly improved in every other respect (see chart).

Subsequent course: Two and one-half months later the patient wrote that she was feeling fine, leading a normal marital life and having no diarrhea. To our astonishment we later learned that she died in July, 1931, two days after giving birth to a healthy child. The latter part of pregnancy was complicated by toxemia with renal impairment and edema. Death was attributed to the cardiorenal condition. As far as we could learn, there was no flare-up of the colitis in the nine months' interval between discharge from the hospital and the patient's death.

CASE II

A married woman, age 26, admitted in November, 1930, with a complaint of bloody diarrhea and abdominal pain.

Abstract of Present Illness: In May, 1930, the patient began to have six to eight loose stools a day. There was no blood at that time. She consulted her family physician who prescribed pills which reduced the stools to three or four a day. Later she was given bismuth and paregoric without much effect. She was six months pregnant at that time. Shortly after her delivery in August, 1930, the patient began to notice blood and mucus in her stools which often numbered as many as twenty a day. About this time she developed rather severe abdominal cramps. In November the patient consulted a physician who diagnosed colitis and advised hospitalization.

Physical Examination: Temp. 99. Pulse 90. Resp. 20. B.P. 110/70. Examination essentially negative except for tenderness over the descending colon and an irregular, indefinite mass in the left lower quadrant.

Laboratory Findings:

Blood: R.B.C. 4.8, Hgb. 52%, W.B.C. 9600, polys. 59, lym. 24, monos. 4, eos. 3.
Urine: Negative.
Kahn: Negative.
Stool: Guaiac 3 plus, no parasites.
Blood Culture, *Serum Agglutination*, *Stool Culture*: Negative.
Gastric Analysis: Demonstrated free HCl.
Proctoscopy: Confirmed the diagnosis of chronic ulcerative colitis.

Emotional Factors and Subsequent Course in Hospital: This patient was the wife of an impecunious minister, who had a small parish outside of New Haven. In an endeavor to discover any factors which might have been instrumental in aggravating, if not in causing her illness, it was found that

the onset of bloody diarrhea coincided with the discovery that her husband was suffering from a tuberculous cervical adenitis and not just a minor infection as he had led her to suppose. As a result of his illness, the husband had to go to a tuberculosis sanatorium for the summer. The parsonage had to be turned over to the minister's substitute, and the patient's worry was increased by the fact that strangers would occupy her home and use her furniture. The advent of a second and undesired pregnancy was another complicating factor, as were various financial difficulties. The preceding winter she had been attending classes at the University and working on a Master's thesis, but these activities had to be given up because of the changed circumstances. The child, which was born in August, presented a serious feeding problem because of a congenital pyloric stenosis.

At this point, the diarrhea which had persisted for three months became much more violent, and the stools became bloody. Despite diet and medication it became necessary for the patient to enter the hospital in November.

When her condition was discussed with the patient it was pointed out that her combined difficulties probably had had much to do with her illness. She was impressed especially by the coincidence of the first diarrheal attack accompanying her discovery of the nature of her husband's illness and the appearance of bloody stools with the vomiting and feeding problems presented by the baby. She admitted that her financial difficulties and her dislike of parish social life were worrying her a great deal. At the time of her admission to the hospital, because of absent menses, she was fearful that she was pregnant again.

The patient had been a graduate student in psychology and was quite coöperative to psychotherapy. Her diarrhea and abdominal cramps disappeared in a few days. Five weeks later the stools (1 or 2 a day) still showed a faintly positive guaiac. In the same period her hemoglobin rose from 52% to 93%. Five months later the patient had a return of abdominal cramps with a few loose stools for three days which she felt may have been due to a fear of pregnancy, as they disappeared with the appearance of her tardy menstrual period.

CASE III

A single male, age 22, admitted in October, 1931, with a complaint of bloody diarrhea.

Abstract of Present Illness: Two weeks before admission the patient began to have four to six soft, formed stools a day. A physician was not consulted at that time because the patient had suffered from "looseness of the bowels" for the last ten years. Four days before admission, he first noticed blood in his stools and began to have moderately severe abdominal cramps. A physician was called who prescribed paregoric and kaolin, without beneficial results. Upon his advice, the patient entered the hospital for treatment.

Physical Examination: Temp. 98.6. Pulse 90. Resp. 20. B.P. 116/70. Examination essentially negative except for slight tenderness in the left lower quadrant. No spasm. No masses.

Laboratory Findings:

Blood: R.B.C. 5.8, Hgb. 100%, W.B.C. 18,100, polys. 81, lym. 12, monos. 5, eos. 1, bas. 1. Smear negative.

Urine: Negative.

Kahn: Negative.

Stool: Bloody, guaiac 4 plus, many pus cells and red cells, no parasites, cysts or ova. On one occasion an unclassified non-lactose fermenting organism of the Shigella group was isolated. This organism was not agglutinated by the patient's serum.

Blood Culture
Serum Agglutination } Negative.
Stool Culture

Gastric Analysis: Demonstrated free HCl.

X-ray Examination of G. I. Tract: Showed evidences of ulcerative colitis.

Proctoscopy: Confirmed the diagnosis of ulcerative colitis.

Emotional Factors and Subsequent Course in Hospital: The third patient, like the first two, was considerably above the average in intelligence. His childhood presented no outstanding features except for a tendency to "loose bowels" in consequence of which he received a good deal of attention from his mother to whom he became deeply attached. When, at fifteen, he "borrowed" money to buy a second-hand car, his mother, who felt that he had obtained the money dishonestly, persuaded him to return it. This affair only increased his admiration and respect for her.

The patient, having finished high school, left home and went to work in New York at the age of eighteen. He made frequent visits to his home town not only to see his mother, but also to see a girl whom he had met just before leaving for New York. Two years later, the girl with her family moved to New Haven and the patient, who, meanwhile, had fallen deeply in love with her, also moved to New Haven. He obtained a position without much trouble and began to work hard to "make something of himself". Under the influence of his sweetheart, who was a Christian Scientist, he became interested in that religion and in a short time he became a much more ardent Scientist than she. Consequently, when the girl started to college and began to "step out" in a way inconsistent with the teachings of Science, they had frequent altercations. Finally, however, having failed to impress his point of view upon her, the patient decided that he might as well "step out" too, and so he began to smoke, drink and go to parties.

About a year later the love affair was terminated rather abruptly by the girl who told the patient frankly that she no longer loved him. He was so disturbed that it took him almost a year to recover. During that period the old childhood "looseness of the bowels" became noticeable and he was careful to eat non-residue foods. He tried to take a serious interest in Christian Science again, but, since he had not lived according to its tenets, he felt that seeking its help was hypocritical.

Six months before admission to the hospital, the patient met the college room-mate of his former sweetheart and became interested in her. Their affair progressed so well during her summer vacation that they considered themselves practically engaged by fall. He still held the same position but his salary, although adequate for his needs did not permit of luxuries. Nevertheless, the patient bought a car. In a short time, however, he found it necessary to borrow a small amount of money from the bank, and, as even that did not suffice to cover his debts, he began to appropriate small sums from his employers. This practice so weighed on his conscience, however, that he finally confessed his dishonesty to his immediate employer. The latter agreed to help him make good the loss by deducting a certain amount from his weekly salary.

Two weeks before admission to the hospital, the patient visited the present sweetheart in her home, and at that time he experienced an undue "looseness of the bowels" for the first time in several months. Three days later (September 23), he visited her at college and took her out to dine. It is to be noted that this was his first visit to the college since the beginning of his affair with this girl who was still the room-mate of his former sweetheart. While dining at a restaurant with her, he had two or three severe attacks of diarrhea, but felt well enough to drive home that evening and to work the remainder of the week. On Saturday, three days later (September 26) he was informed of a cut in his salary and, moreover, of an increased amount of work. The following day (September 27), he visited his sweetheart again and had another acute exacerbation of diarrhea. He returned home, went to bed, and on Monday (September 28) could only work a half day. He then stayed in bed until Tuesday afternoon (September 29) when, feeling much better, he again saw his sweetheart at college and on this occasion suffered the most severe attack of diarrhea to date. He "almost passed out" on the way home. From this time he was confined to his bed, blood first appeared in his stools the next day (September 30), a physician was called in, and he entered the hospital three days later (October 3). Meanwhile, during the two weeks just described, his financial difficulties had reached a climax: his note, which he was unable to meet, became due at the bank.

The preceding facts were elicited during the patient's stay in the hospital. In spite of bland diet, belladonna, and large doses of tincture of opium, the patient continued to have 4 to 6 grossly bloody stools a day for four weeks.

His blood count dropped from 5,800,000 to 3,500,000 and the hemoglobin from 100% to 65%. He lost 16½ pounds in weight and ran a daily afternoon temperature of 101 degrees. A long series of interviews was held with the patient and all his problems were discussed. The relationship between these and his illness was suggested and a return to Christian Science was advised. Since medication was incompatible with "Science", the patient was discharged, and a bland diet was advised. Toward the end of his hospital stay, the patient's father offered to assume his financial obligations and from that time recovery was rapid. In three months his weight had increased from 116 to 155 and he was having only one normal stool a day. The anemia which developed while in the hospital rapidly disappeared. To date there have been no recurrences.

CASE IV

A married woman, age 38, admitted in October, 1931, with a complaint of bloody diarrhea.

Abstract of Present Illness: Two years prior to admission, the patient first noticed "loose bowels" to the extent of three to four stools daily. She continued in this fashion with no other symptoms until February, 1931, when diarrhea appeared and she began to have four to five stools daily. The local physician was consulted who treated her throughout the summer of 1931 with all sorts of medication, none of which, however, afforded any permanent relief. Two weeks before admission, the patient first noticed blood and mucus in her stools, and the number of stools increased to eight to ten daily. No other symptoms appeared up to the time of admission, but the patient was advised to enter the hospital for observation.

Physical Examination: Temp. 99.7. Pulse 90. Resp. 22. B.P. 110/75. Patient is an asthenic, hypersensitive woman. Examination essentially negative except for slightly hyperactive reflexes.

Laboratory Findings:

Blood: R.B.C. 5.24, Hgb. 85%, W.B.C. 6400, polys. 64, lym. 24, monos. 7, eos. 5. Smear negative.

Urine: Negative.

Kahn: Negative.

Vaginal Smear: Negative.

Acid-fast Exam. of Stool: Negative.

Stool: Pea soup consistency, blood-streaked, large amounts of mucus, guaiac 4 plus. Many R.B.C. and W.B.C. No parasites or ova. Culture, only *B. coli.*

Tuberculin: 1/100 positive.

X-ray of Chest: No evidence of pulmonary tuberculosis.

X-ray and Fluoroscopic of Colon: Showed extensive ulcerative colitis of entire large intestine.

Protoscopic Examination: Revealed a granular appearing mucosa of the rectosigmoid which bled easily. One small punched-out ulcer seen.

Emotional Factors and Course in Hospital: From the onset it was apparent that psychogenic factors were involved in this case to a greater or lesser extent, because the patient, at the first conference, volunteered that worry or nervous excitement invariably increased her symptoms. The onset of her illness, which first manifested itself as "looseness of the bowels", occurred during a very trying period, two years prior to admission, when the patient nursed her mother through her last illness. She had always been deeply attached to her mother and when the latter not only fell gravely ill, but also became manic a month before her death, the patient was under a severe mental and physical strain.

Having established a connection between the onset of the illness and emotional factors, an attempt was made to correlate the appearance of diarrhea with possible subsequent upsets. This was relatively difficult, since it became obvious after long and careful questioning, that no emotional difficulty of any consequence had occurred. There was no marital maladjustment. Finally, however, when it was mentioned that joy was an emotion, as well as fear, worry, etc., the patient exclaimed, "I have had much to be joyful about". She then proceeded to relate that early in the spring (1931), a new minister was appointed to the church where she had been organist for some time. Before his arrival, some of the parishioners remarked that the patient might have a difficult time retaining her position because the minister was reputed to be something of a music critic. In order to make sure of her position, which she was loath to lose, the patient began to take organ lessons. She got on very well with her lessons and had no trouble in retaining her church position, which she still holds at the present time.

It is noteworthy that although the patient is constantly afraid she will have an attack of diarrhea during a rehearsal or church service, only once has this been the case. On that particular occasion, the patient felt a sudden desire to go to stool in the midst of a general discussion during choir rehearsal, and therefore her temporary absence went unnoticed. The patient admits that she gets extremely wrought up and nervous before each performance, but loves her work so much that she considers the last six months one of the happiest periods of her life.

Nothing in the way of therapy (beyond bland diet and sedatives) was attempted with this patient. It was suggested that since nervous excitement seemed to be related to the exacerbations of her illness, self-control and a

more ordered life might have a beneficial effect. Although not entirely free from symptoms, the patient was definitely improved on discharge.

Subsequent Course: During the six months since discharge the patient's improvement has been definite but not striking. The patient still has 3 to 4 rather loose stools a day, but there has been no blood in them for 3 months. She has gained in weight (8 pounds) and strength, and is able to lead a normal life. The most interesting feature of her convalescence has been the association of short exacerbations of symptoms with her church-music activities. On six different occasions choir rehearsals and church services have produced diarrhea, cramps, headache and occasionally vomiting. These spells have lasted two or three days. The relationship between the church activities and the relapses were discussed with the patient, apparently with profit, for there have been no further relapses during the past three months.

CASE V

A single male, age 25, admitted in November, 1931, with the complaint of seven years of intermittent diarrhea, which at times was bloody.

Abstract of Present Illness: In the summer of 1924, while selling books and "eating around" in various restaurants, the patient began to have 3 to 6 loose stools a day, with considerable abdominal pain. He went to a physician who gave him bismuth, without much benefit. When he returned to college in the fall the diarrhea was exceedingly troublesome. He would have remissions followed by relapses, when he became fatigued. During 1925 he first noticed gross blood in the stools and at times would have 10 to 12 a day, although the number was quite variable. The following year he was proctoscoped and numerous small, pin-point bleeding ulcers were found. A diplococcus was isolated and a series of vaccine injections given without improvement. He was also given acriflavine injections. The patient, although feeling very poorly, then went to Syria to teach English for a year. During this time he had a great deal of trouble, was constantly fearful lest he should go too far from a toilet and thus have an accident, which occasionally happened. The stools were frequently bloody. He consulted numerous physicians while abroad and was given a course of neosalvarsan injections while in Switzerland. On his return to America, the patient decided to study for the ministry. For the past two years, while finishing his studies, he has been occupying a pulpit in a small town in Connecticut.

At the time of admission, the patient was complaining of considerable abdominal pain, "gas" and 4 to 6 bloody stools a day. He was advised to enter the hospital for complete studies. Three weeks previous to admission, the patient had an upper respiratory infection, to which he had paid little attention. This was probably the onset of an attack of infectious mono-

nucleosis that altered the patient's blood picture during the next few months. This has subsequently become normal.

Physical Examination: Temp. 98.6. Pulse 80. Resp. 20. B.P. 100/60. The cervical, submental, axillary and inguinal lymph nodes were large, discrete and elastic feeling. Tonsils enlarged. Spleen not felt. Some tenderness over the sigmoid.

Laboratory Findings:

Blood: R.B.C. 4.0, Hgb. 93%, W.B.C. 27,500, polys. 21, lymphs. 78, eos. 1. Smear revealed a preponderance of cells which apparently were immature large lymphocytes.

Urine: Negative.

Kahn: Negative.

Stool Culture: Pure culture of *B. coli.*

Stool: Repeated exams. done on soft brown fluid stools. Rare W.B.C., many R.B.C., no amebae, parasites or ova. Moderate amount of mucus. Guaiac 4 plus.

Basal Metabolic Rate: Plus 4%.

X-ray of Chest: No evidence of pulmonary tuberculosis.

Proctoscopic Examination: A hyperemic mucosa in rectum and recto-sigmoid covered with small ulcerations, varying in size from a pin-point to a match head, which bled easily.

Barium Enema: Extensive colitis involving entire colon.

Emotional Factors and Course in the Hospital: The patient manifested considerable insight into his condition, was quite intelligent and coöperative. Very early in the interview he volunteered the information that he may have used the toilet as a place of escape or relief from difficult or embarrassing situations. He would often have several watery stools before interviewing two particular professors who might "show up his ignorance", or before addressing some audience.

It is interesting to note that the patient's father had a "nervous breakdown" immediately after graduating from college, and this had kept him in bed for two years. The patient's intestinal difficulties began when he was a freshman in college. He received a bid from a fraternity and determined to become a prominent campus figure, in which he was fairly successful. He spent most of his time reorganizing the glee club and arranging for extensive tours for the club each year. He felt that he was neglecting his studies, eating irregularly and never getting enough sleep, owing to the fact that he lived in a large dormitory room with about 30 other students. For four years "I did nothing but drive myself".

Indecision is one of his greatest failings. Although he addresses his con-

gregation each week-end and will graduate from Divinity School this year, he is still undecided whether or not to go on in the ministry. He likes to preach, but at times is disgusted with theology. Recently he practically decided to go into philosophy but again changed his mind and became fascinated with the ministry. He says many girls have been in love with him and he enjoys their company. Recently he has been going around a good deal with a Catholic girl, a situation which is worrying him a great deal.

Finances are one of his major problems. His father has been out of work for some time and he feels that he is not doing his share toward the support of the family. In June, 1931, the patient failed in one of his major courses which necessitated his spending one more year in the Divinity School, a development which greatly shocked his ego and accentuated his financial worries. It was felt that this emotional upset was responsible for his present exacerbation of symptoms.

The patient remained in the hospital only 8 days and therapy was limited to a bland diet. He was discharged as improved, for, as he stated, "what I needed most was a rest and I got it in the hospital".

Subsequent Course: During the two months following his discharge from the hospital the patient's condition remained about stationary. During the third month his condition became worse; he began to have bloody stools every two hours, occasionally involuntarily. During this period he had been sending out many letters of application for positions for the coming year and had received several favorable replies. About the first of April, 1932, he accepted a position teaching philosophy at a neighboring college; this will enable him to continue in the small town pulpit which he now occupies. The combined salaries are quite adequate for his needs and probably the two positions solve his problem of deciding between philosophy and religion. His symptoms immediately improved and from that time he has been having only one or two semi-formed stools a day. He states the case completely in his own words, "I have been pounding away with all my energy and reserve for seven years, now for the first time I can relax and take things a bit easier".

CASE VI

A married male, age 56, was seen in the New Haven Dispensary in December, 1931.

Abstract of Present Illness: Patient stated that at various periods in his life he had been subject to short attacks of "gas" and frequent stools. He was a known diabetic and had been taking insulin for five years. For the past two months he had been having rather severe lower abdominal pain, tenesmus and had been passing small amounts of dark liquid fecal material 15 to 25 times a day. Physical examination revealed nothing of importance. Stool

showed a 2 plus guaiac but no parasites or ova. Barium enema revealed several small diverticula in the sigmoid and a "fuzzy" appearance of the cecum and transverse colon suggestive of colitis. Proctoscopic examination showed nothing abnormal except a hypertrophy of Houston's valves.

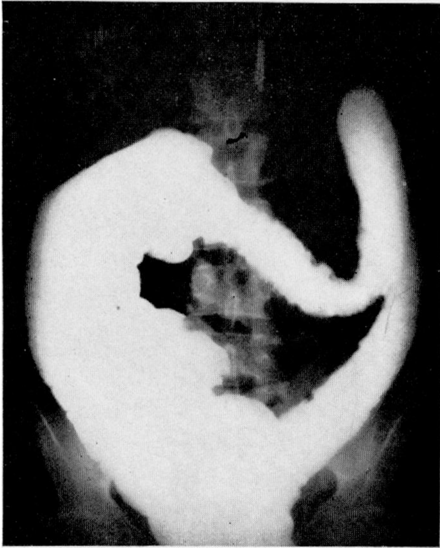
Emotional Factors and Subsequent Course: Several long interviews with the patient revealed the fact that most of the previous attacks of diarrhea were related to emotional upsets in his life. He had been separated from his wife for many years but lived within a few blocks of her and contributed financially to her upkeep and that of his two children. One of his earlier attacks coincided with the following episode: One Christmas Eve the wife put the son out on the streets with a little bundle of his clothes and told him to fend for himself. The child, only 12 years old, fortunately met his father on the street a few hours later and lived with the latter for several years. The present attack which began in the late fall of 1931 was also directly related to many family difficulties. The patient learned on excellent authority that his wife was entertaining male visitors over-night, and what was worse, doing this in the presence of her 20-year-old daughter who had recently returned from school. He was exceedingly upset about this situation and appealed to the police without satisfaction.

The patient, although coöperative, was unintelligent and it was felt that the efforts to show him the connection between his symptoms and his family difficulties might be unavailing. Nevertheless, the diarrhea promptly subsided, although he followed a bland diet and took bismuth and kaolin by mouth for only two weeks. During the past four months the patient has been free from gastro-intestinal symptoms.

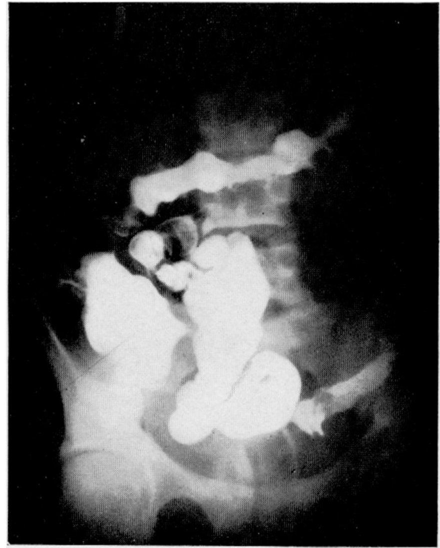
Comment

There can be little doubt that these six cases must be classified with the group usually labeled as chronic non-specific, ulcerative colitis. Care was taken to rule out malignant, vascular, trophic, toxic and other constitutional diseases as the responsible factors and no evidence of specific bacterial or protozoal disease was found. Cases I and V are typical of the chronic form of the disease, with remissions and relapses, in spite of diet, irrigation or intravenous therapy, or a course of vaccines. Case III is of the acute fulminating type which carries a poor prognosis and often must be subjected to surgical procedures. The other three cases are of moderate severity.

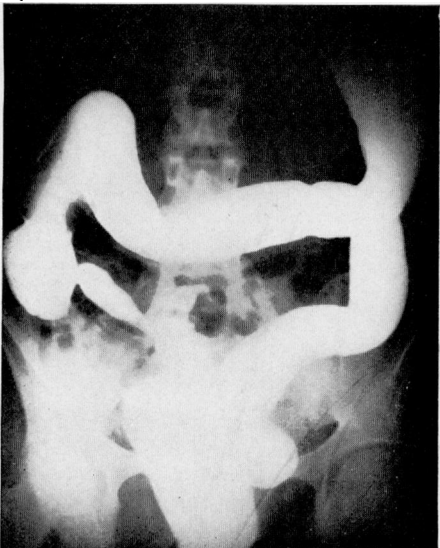
That emotional upsets played some rôle in the clinical pictures presented by these six patients cannot be questioned after reading



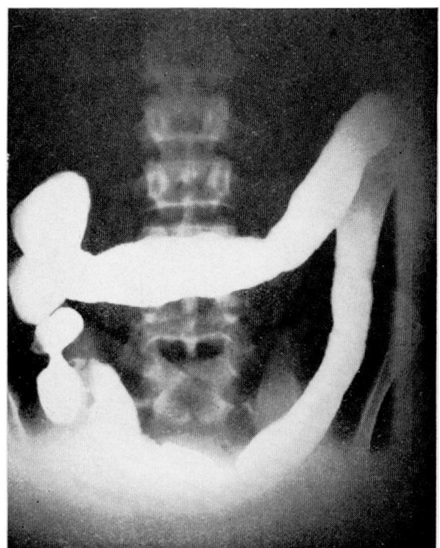
Case I



Case III



Case IV



Case V

Roentgenograms taken after barium clysma on Cases I, III, IV and V shortly after admission to the Hospital.

the case histories. Again and again, the onset of periods of bloody diarrhea can be found to coincide with psychic disturbances. We offer no explanation for the phenomenon. We know too little about the motility of the gut, its blood supply, its secretions or its powers of repelling bacterial invasion to do more than speculate as to the reasons why an emotional upset may be followed in a few hours or days by colonic ulceration and bloody diarrhea.

We do wish, however, to point out the therapeutic importance of recognizing that there may be a definite connection between the patient's emotional life and the presence of ulcerative colitis. In these six cases the subsequent course, though short, indicates that the prognosis can be altered by psychotherapeutic adjustment. With the exception of the tragic end-result in Case I, the patients have been helped more by procedures directed toward the improvement of their personal problems than by medical therapy directed toward the colon. We do not claim "cures" for these patients, as it is very likely that further emotional difficulties will precipitate relapses of the colitis.

During the 20 months in which these six cases were seen, six other cases of ulcerative colitis were admitted to the New Haven Hospital. One of these died in the hospital; one died a few weeks after leaving the hospital against advice; one left against advice in a moribund condition; and one left improved but soon had a relapse and has spent most of the last six months in a hospital in another state. The fifth case, complicated by a severe arthritis, was discharged as "improved". The sixth case, a 29-year old psychiatric social worker with a history of six years of bloody diarrhea, had an extensive ulcerative colitis complicated by a rather severe pellagra. She suffered constantly from delusions, hallucinations and paranoid ideas. These failed to disappear as the dermatitis of the pellagra improved and the mental condition was labeled schizophrenia. Because of the lack of an adequate history and the fact that the psychosis might have been due to the vitamin deficiency we cannot assume that the mental condition antedated the colitis or was in any way a causative factor in the bloody diarrhea. In spite of nine weeks of intensive treatment with high vitamin diet, intramuscular iron and liver, transfusions and the like, the patient failed to improve.

A comparison of these two groups of cases indicates a decided difference in prognosis. It is to be hoped that further studies on larger groups of cases will show definitely whether the prognosis in the first group of cases is altered by the recognition of the psychogenic factors and subsequent psychotherapy, or whether it is merely that psychogenic ulcerative colitis is a milder form of the disease.

Conclusions

1. We report, briefly, six cases of chronic ulcerative colitis in which psychogenic factors seem to have played a major rôle in the onset and course of the disease.

2. We believe that psychotherapy materially alters the prognosis in these cases.