

The treatment of the diseased cervix depends upon the extent and character of the infection. The cautery, in my hands, has yielded the best results. The Sturmdorf tracheloplasty is useful, but is inferior to surgical amputation. I have abandoned both procedures in favor of the cautery. Skene's glands are very difficult to cure; the cautery wire has been most serviceable. Bartholin glands when once infected are rarely entirely free of disease. Their complete extirpation without rupture through the labia offers a complete cure. The cure or removal of diseased Skene's and Bartholin glands will generally cure relapsing cases that have baffled other modes of treatment.

I am satisfied that protein therapy has a decided place in our armamentarium. This is especially true of diseased internal, rather than external, organs. It seems to exert little influence upon the diseased cervix or vulva. On the other hand, its action is quick and sure in many cases of acutely diseased uterine adnexa. Diathermy, in my hands, has not yielded the wonderful results other men have achieved. When it is used, great care must be exercised not to stir up a sleeping pelvic infection.

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R. GLENN CRAIG, M. D. (490 Post Street, San Francisco).—Doctor Pettit has offered us an entirely new method in the treatment of gonococcal infections in the female which, in his hands, has given most satisfactory results. It cannot be too strongly emphasized that this treatment is a hospital treatment which must be carried out under the constant observation of attendants who are accustomed to giving these hot baths. If the treatment is used under other conditions, fatalities may result. Doctor Pettit has made a step forward, but we should await his report on a larger series of patients.

I cannot agree with Doctor Pettit's statement that gonococcal infections are so often carried to the internal genitalia through the lymphatics. If this is true, I would like to ask why gonococcal salpingitis is not seen after supravaginal hysterectomies or when a sterilization has been done. I would like to ask if he has seen one such patient. Until the evidence is changed, I must continue to believe our old teaching, that gonococcal infections seldom spread up to the lymphatics.

COLIC IN INFANCY—IN THE SECOND TRIMESTER*

REPORT OF CASE

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DISCUSSION by T. C. McCleave, M. D., Oakland; Ernst Wolff, M. D., San Francisco; Donald K. Woods, M. D., San Diego.

COLIC in infants for the first three months of age is so common that many erroneously consider it physiological. But colic in older infants from three to six months is very uncommon and when it apparently occurs a very careful diagnosis is desirable. A careful history is absolutely essential. A complete physical examination with the infant stripped is necessary. Etiological factors which may come into action in the second trimester of the infant's life will be considered in turn.

ETIOLOGIC FACTORS

Indigestion.—Indigestion may be due either to a high fat or a high sugar content, or to food which is not suitable for that particular infant. The high percentage of fat found in certain milks may cause dry, constipated soap stools which are difficult to pass and at times give pain. Certain sugars, as milk sugar or dextrin malt preparations which are too high in maltose or glucose, as for example, corn sugar, may cause looseness of the stools, abdominal distension and cramps. Occasionally improper solid foods are fed even to an infant of this age. If so, that fact will usually be disclosed in the history. The reduction of the high fat milks and the use of the proper type of sugar usually brings prompt relief.

Angioneurotic Edema.—This condition is rare at this age and if the child has been on the same formula from the beginning without such a complication, then the condition need not be taken seriously. It is a possibility, however, which must not be overlooked in the history and examination of the infant, especially wherever there are urticarias or other signs of skin irritation. We must not forget that the breast-fed infant may have trouble from certain foods that the mother may eat, as noted by Shannon. Particular emphasis in such cases is seen in certain intractable eczemas. We must, however, be careful not to attribute the colic to the mother's diet until all other factors have been eliminated.

Cerebral Birth Injuries.—These may cause so much cortical irritation that a child, even at this age period, has definite spastic signs with more or less muscular rigidity, and an associated inability to properly care for the food. These infants cry a great deal and always seem in more or less distress, do not gain properly in weight or strength. The food is changed frequently as it may be thought that the food is the factor at fault, when, as a matter of fact, the trouble is primarily of a cerebral and not gastro-intestinal nature.

Some of these infants with cerebral birth injuries may not be particularly spastic but may be difficult feeders and have much gas. We have under observation one patient that has convulsions at varying intervals of from a week to a month, regardless of the care that is given to the preparation of its food. Blood calcium is within normal limits and gastro-intestinal studies with barium reveal no abnormalities and x-rays of the skull shows nothing abnormal. Infants such as this are the ones that are slow in their mental development, and at eighteen months usually are not able to sit, and seem many months retarded.

Certain Congenital Anomalies.—These are rather rare, but as found occasionally, include conditions such as strictures, adhesions, mesenteric cyst, with or without volvulus and Meckel's diverticulum with volvulus. The following case of Meckel's diverticulum is here reported.

* Read before the Pediatric Section of the California Medical Association at the fifty-ninth annual session at Del Monte, April 28 to May 1, 1930.

REPORT OF CASE

Baby F., male, referred by Dr. A. Hon, was first seen August 21, 1929, age 4½ months, first child, instrumental delivery after slow labor. Birth weight, 8 pounds, 10 ounces. The child had been well up to the day before it came under observation. It had been breast fed every three hours. Bowel movements had been good until August 20, but were somewhat dry and lumpy. On this date it vomited but seemed to have no temperature. At 3 p. m. it started to whine and cry. The mother reported that for the preceding three weeks it would wake at night and fuss and seem to have abdominal gas. The mother had been on a fair diet with some restrictions. The infant had been given no laxative or enemas until August 20, and then with no results. When first seen on August 21 its temperature was 103. The infant was well nourished. It lay with its legs flexed and was very pallid. It had a hypospadias, but the testicles were down and there was no hernia. The heart and lungs were normal. The left membranatympani was pink and the throat was quite red. The abdomen was sensitive with slight rigidity, although it endured deep pressure without much flinching. The upper part of the abdomen was more full although no definite mass could be felt excepting around the umbilicus. On deep palpation its respiration became grunty. Its face had an anxious look. It vomited greenish brown material. The blood count was 17,800, with 60 per cent polynuclears and 32 per cent lymphocytes. It passed small mucoid stools tinged with some blood. A tentative diagnosis of intussusception was made and the infant was removed to the hospital where it was operated on under ether anesthesia by Dr. W. L. Huggins. Through a right rectus incision about 300 to 400 c.c. of blood fluid was evacuated from the abdominal cavity. A Meckel's diverticulum, containing about one ounce of fluid and attached underneath the navel, had caught a loop of bowel, twisting it and forming a complete block. The serous coating of the bowel was glossy and the color rapidly improved when relieved of the tension. The attachment of the diverticulum was divided and it was removed.

The child was returned to bed in good condition but the nurse quoted that in a few minutes his skin became pallid and a brown liquid ran from his nostrils. The infant died suddenly.

Pathological report: "Specimen is sac-like structure with narrow mouth, which is approximately 0.6 cm. in diameter. The whole specimen is approximately 4½ cm. in diameter. Surface dark red and surface lined with this smooth blood-stained membrane. Diagnosis: Meckel's diverticulum."

No autopsy was permitted, consequently we were unable to determine whether there was any other cause for the sudden death, although from the condition of the child when it was sent to the operating room, we were of the opinion that shock was the principal cause of death.

Porter,¹ in his list of 184 patients, mentions twelve under seven months of age, and of these seven died and four recovered, one result not smooth. Walls infiltrated with hemorrhage. Inner being mentioned. Nine of these patients were under two months of age. There has been very little in the current literature on the subject. The mortality is higher than 50 per cent. It behooves us to be on special guard when a diagnosis is made of a surgical condition, in order to avoid delay that might be dangerous, as even in a few hours irreparable damage may be done.

Pyuria and Renal Colic.—For every infant an urinalysis should be made. An urinalysis is particularly indicated in infants where there is a history of so-called colic of short or long dura-

tion. The urine may show pus, with or without blood. There may be no history of change of temperature at such times, although usually where there is pus there is more or less temperature. This is particularly emphasized in cases of female infants, as they are more frequently affected with pyuria than male infants. Stone in the ureter or in the bladder must not be forgotten. Though rare, such cases occur. The microscopic examination of the urinary sediment will give the first definite lead when blood corpuscles are found. Further studies should be made in cooperation with a competent urologist.

The Neurotic Child with Nervous Parents.—Such an infant is apt to be thin, costive, over-handled, overwrapped. It may be fretful, irritable and may cry a great deal and be unable to properly digest food. It may have had varying degrees of colic until proper dietary and hygienic regimen are established. Such an infant may have had a poor start for frequently such a child may be denied its own mother's milk because the mother may think she is "too nervous." If such a mother does nurse the child it seems to be worse then when it is fed artificially. Such infants at times become serious problems in pediatric practice, and it is no easy task to manage the parents and the relatives so as to give the infant its proper chance.

Inflammation of the Ear and Mastoids.—Due to the work of Dean and Marriott, the attention of the medical world has been drawn to the relationship between the middle ear and mastoid infections and the gastro-intestinal tract. It is a common finding for an infant which has been doing well in the early months of life on breast feeding, or on a proper formula, to have, following a mild coryza, symptoms of indigestion, loose stools, colic and more or less temperature. Such infants are frequently given physic to get rid of the supposedly irritating food products, or the diet is changed, or perhaps they are starved and what not until they develop symptoms of dehydration and acidosis, ending often in death.

If the ears of such babies are carefully studied, definite changes in the color of the ear drum and a certain amount of sagging of the canal walls, particularly the posterior and superior, will be found, but no swelling or particular tenderness back of the ear. Repeated myringotomies release only a small amount of pus, if any. These cases show a marked improvement following a simple mastoidectomy, which must usually be bilateral. However, not all infants at this age with these symptoms of digestive upset require such radical procedures, but some may be markedly improved and even relieved of all their symptoms by a simple myringotomy.

Intussusception.—This complication is usually considered to be more common from 6 to 18 months of life. It may occur earlier and should be kept in mind as a possibility of colic. A report of a case follows:

Baby G., female, aged 6 months. The child was born at full term, birth weight 6 pounds, 12½ ounces;

was breast fed every four hours for four months, then feedings were supplemented with artificial food. Infant did well, with normal bowel movements, until the morning of September 4, 1929, age at that time being six months. The mother telephoned that the child had awakened at 6 a. m., apparently with abdominal cramps, followed by one normal stool. Then, inasmuch as the cramps did not seem to abate, the mother gave an enema and got some bloody mucus. When the infant was seen at 10:30 a. m., it had a temperature of 99. A little mass was palpable in the median line on a level with the umbilicus, which seemed to be tender. The child was not in shock and five drops of 1/1000 atrophin every three or four hours were ordered and the child was left under close observation. At 2:30 p. m., it had a large bloody stool, the mass was still present, the lower right quadrant seemed empty. A diagnosis of intussusception was made and the child was operated on at 5 p. m., by Dr. George Ernsberger, who reduced an intussusception at the ileocecal valve, and also removed the appendix, which was about three inches long and acutely engorged. The child made an uneventful recovery.

Microscopic examination of the appendix: "Lining intact, areas of hemorrhagic extravasation. A few collection of leucocytes, many eosinophiles in mucosa. Lymphoid tissues hyperplastic, collection of round cells in subserous and mucous layers. Diagnosis: Chronic appendicitis with early acute inflammation."

The interesting point to speculate on here is: Was the acute inflammation of the chronic appendicitis responsible for the intussusception, or was the acute condition due to the strangulation?

Strangulated Hernia.—This condition must not be overlooked. Platou² notes a case of a female infant eight weeks old, with a strangulated left inguinal hernia, which was operated on with recovery. Some years ago we observed a male infant, six weeks old, which had a strangulated right inguinal hernia of about thirty-six hours duration, and which was operated upon and made an uneventful recovery. These two cases are in an age period younger than the one we have under discussion, but they are brought in to emphasize the fact that these conditions may be present and must not be overlooked.

SUMMARY

The fact that an infant is past three months of age and has symptoms suggestive of colic should make one watch for possible congenital abnormalities or intussusception. A painstaking history is of the greatest value. Likewise a thorough examination of the stripped child. The child should be carefully studied with particular reference to otoscopic examinations of the ears. The urine must be examined microscopically, to rule out pus or microscopic blood; and the abdomen must be palpated, particularly in the region of the umbilicus for any small mass or tumor, which, if present, usually is painful and causes the infant to cry out when manipulated. In the abdomen there is a suggestion of emptiness in the lower part. A bloody mucoid stool may be one of the signs.

The use of barium enemas and barium meal, and of fluoroscopy and x-ray plates is a waste of valuable time, if a diagnosis has been made of some abdominal condition requiring surgery, as

the exact or differential diagnosis is not so important as the fact that surgery is indicated. X-rays of mastoids at this age are not to be depended upon. The diagnosis should be made on clinical findings. The x-rays should be adjuvants.

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2. Platou, E. X. Possible Anatomic Basis for Certain Cases of So-called Colic in Infants. Archives Pediatrics, Vol. XLIV, No. 7, p. 458, July, 1927.

DISCUSSION

T. C. McCleave, M. D. (1904 Franklin Street, Oakland).—Dr. Scott's reference to congenital anomalies of the intestine as a possible cause of colic-like pain in infants is exemplified by a case seen by me of an infant some nine or ten months old who had a history of repeated attacks of apparently severe pain in the abdomen, the present attack of several days' duration. The baby, when seen, was in extremis, with fecal vomiting, a distended upper abdomen and a flat lower abdomen, a condition obviously indicative of intestinal obstruction. Operation revealed the cause of the obstruction to be a diverticulum which was inverted, incarcerated and gangrenous, the outer extremity of which was a disc of solid tissue shown later on by microscopical examination to be accessory pancreas tissue. Time was not taken to allow examination of the portion of intestine from which the diverticulum originated, owing to the baby's bad condition, and further examination was not permitted after death, which occurred shortly after operation. It was evident that the recurrent attacks of pain were caused by the repeated transient invagination of the diverticulum which acted like a ball-valve in the lumen of the gut; finally, however, spontaneous reduction failing to occur as heretofore, becoming incarcerated as a result of congestion and swelling.

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ERNST WOLFF, M. D. (516 Sutter Street, San Francisco).—Dr. Scott's paper has extraordinary merits in view of the many urgent problems connected with the proper diagnosis of acute gastro-intestinal disturbances in the second trimenon.

The case report of intussusception in a six months old baby is to me especially interesting on account of two features. These were duplicated in a case of intussusception in a three months old baby boy, whom I observed recently in private practice.

It is mentioned in most of the next books that bloody stools do not appear for six to seven hours after the intussusception has started. In Dr. Scott's case and in mine bloody mucus appeared in the second hour after the onset of abdominal pain.

The second coincidence is the finding of an acutely engorged and red appendix during the operation. The microscopic report pointing to chronic appendicitis with early acute inflammation seems to be strange when the tender age and the uneventful past history of the patient is taken into consideration.

There is the possibility that the term of hyperplastic lymphoid tissue may denote only a physiological condition of a young baby. As the appendix is situated very near to the ileocecal valve, which is ordinarily the site of the intussusception, strangulation may easily explain the pathology of the appendix in both cases.

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DONALD K. WOODS, M. D. (2545 Fourth Street, San Diego).—Dr. Scott's paper is valuable not so much because of the particular cases reported, but on ac-

count of the emphasis placed on the need of careful examination and definite diagnosis in recurrent attacks of so-called colic.

Colic, as he brings out, is usually caused by exacerbation of subacute conditions or recurring acute trouble. Also the underlying cause is often of a very serious nature.

One cause for recurrent colic which is rather frequent has not been discussed, namely, pylorospasm. This is encountered not infrequently. It may or may not be accompanied by vomiting. In some of the children a history of vomiting during the first three months is given, but not later. The attacks are intermittent and usually occur soon after feeding. X-ray will show a very slow emptying time for the stomach. The attacks are usually relieved by small doses of atropine before feeding, or in more severe cases by $\frac{1}{8}$ to $\frac{1}{4}$ grain doses of phenobarbital with or without atropine. It would be well to exclude pylorospasm in all cases of colic where the diagnosis is obscure.

However, I feel that, as stated before, the chief value of Dr. Scott's paper is to emphasize the fact that recurrent pain should be given the same searching clinical consideration in early childhood as would be given to similar symptoms in the case of an adult.

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DOCTOR SCOTT (Closing).—I wish to thank the men who have discussed this paper. My object in bringing this before the section was to provoke discussion and remind us that there are other causes than food which may cause colic in infants past the first three months of life. We tell our students to strip the child, examine the ears and the urine. If these admonitions are heeded there should be fewer errors in diagnosis and fewer important points overlooked.

A PROFESSION WITH A SOUL*

By W. H. Hood, M. D.
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GREAT has been the progress of medicine in the last century. Greater still has been the progress of our profession since the illustrious Lister applied the principle of Pasteur, scarcely two decades before the organization of the Pacific Association of Railway Surgeons some twenty-eight years ago. And even greater will be the progress in the days to come, for today in hundreds of laboratories there are thousands of investigators following in the footsteps of other pioneers, and to these future investigators honor will also be given, for through their efforts scientific medicine will continue to advance.

The clerical profession deploras today what it terms our material age, in which the chief aim in life is apparently the obtaining of wealth with which to gratify the body, without regard to those deeper pleasures of the mind or soul which money cannot buy. So the thought sometimes comes to me that, unmindful of the biblical injunction that "Man cannot live by bread alone," many in our profession may become so materialistic that they overlook the fact that our profession should possess a soul as well as a body—a soul that is over and above and which cannot be measured by the material scientist with his instruments of precision. Our service to humanity will be fuller if this soul element be not ignored.

* President's address at the twenty-eighth annual session of the Pacific Association of Railway Surgeons, August 23, 1930, at Coronado, San Diego.

Today there are many cults and systems of healing competing with scientific medicine. That such have many intelligent followers there is no denying. If they seem to their credulous followers to succeed, is it not perhaps, because they have capitalized an element that we have been too prone to neglect?

As I grow older in the practice of medicine, and in the experiences of life, I feel more and more the importance of this soul element in medicine. My thought to you today is that we, who from habit are concerned largely with the material elements of the body, may gain in value by keeping in mind this undefined soul which exists also in our patients as it is partly evidenced through the psychical element in disease. We all are familiar with the effects of a sick body on the mind, but we sometimes seem to forget that as great, or greater, are the effects of a sick mind on the body.

In our school days we were taught that a perfect bodily function depended upon healthy organs, upon a healthy supply of blood to these organs, and upon a healthy nerve supply to these organs. By nerve supply I do not visualize an inert wire that conducts an impulse, but the living battery that generates it.

As you well know, we have in the brain two sets of nerve centers: the upper nerve centers which have to do with thought, intelligence, will power, memory, and the like; and the lower subconscious or medullary centers, through which the upper nerve centers act. This is a wise provision of nature, universally observed. For example, when the student of music learns to play the piano every key that he strikes, every note that he sounds, is a conscious effort, and is followed with fatigue; but when, in time, by constant practice, he masters the instrument, with only the decision of the will to do, these lower centers act automatically and he plays even the most complicated compositions of the great masters without effort and without fatigue.

To apply this example, what happens in health or normal processes may also happen in sickness. In your own experiences you have seen how these subconscious centers act viciously, with symptoms continuing long after the cause of the illness is removed. These unfortunate patients need mental and not physical treatment. First of all let the physician make a complete examination, using the aid of all scientific tests, so that he can be sure of his position; for if the physician is not confident he is in no position to inspire confidence in the patient. With sympathy, then, assure the patient that his trouble is not imaginary but real. Then trace the progress of the illness from the beginning and illustrate how the subconscious center acts automatically in the ordinary pursuits of life. To obtain a cure it is necessary to re-educate the patient to bring this center into normal action. This cannot be done by an effort of the will power, for trying to do a thing expresses in itself an element of doubt of success, but it can