Staff Meeting Bulletin Hospitals of the » » » University of Minnesota

Perirectal Abscess and Fistula

Volume XV | Friday, November 12, 1943 | Number 7

STAFF MEETING BULLETIN
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INDEX

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William A. O'Brien, M.D.

I. LAST WEEK

Date: November 5, 1943

Place: Recreation Room, Powell Hall

Time: 12:15 to 1:15 p.m.

Program: "Carcinoma of Larynx"

W. R. Movius
L. R. Boies

Discussion: L. G. Rigler
K. W. Stenstrom
L. R. Boies

Attendance: 108

Alice Carlson,
Record Librarian

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II. MEETINGS

1. ANATOMY SEMINAR

Saturday, November 13, 1943, 11:30 a.m., Room 226, Institute of Anatomy.

Leukemia in Man and Animals: Influence of irradiation upon leukemia in experimental animals.

Henry Kaplan

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2. PATHOLOGY SEMINAR

Monday, November 15, 1943, 12:30 p.m., Room 104, Institute of Anatomy.

"Influenzal Meningitis"

H. D. Nester

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3. BACTERIOLOGY SEMINAR

Thursday, November 18, 1943, 4:30 p.m., Room 129, Millard Hall.

"Etiology of Measles"

Dorothy Sawatzky Solvason

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4. WAR-TIME GRADUATE MEDICAL MEETINGS

The first session was held in Minneapolis Tuesday, November 9, 1943.

SUBJECT: Arthritis and Rheumatoid Disease.

10:00 - 12:00 Ward walk, Wold-Chamberlain Naval Aviation Base Dispensary.
Dr. Charles H. Slocumb

12:00 Luncheon, Naval Medical Dispensary Staff

2:00 - 4:00 Ward walk - Fort Snelling Station Hospital,
Dr. Charles H. Slocumb.

4:30 - 6:00 Lecture, Diagnosis and Management of Arthritis and Rheumatoid Disease.
Dr. Charles H. Slocumb.

6:00 Dinner, Officers' Club (Army and Navy)

7:30 - 8:30 Differential diagnosis of joint disease from radiologic standpoint.
Dr. Leo G. Rigler

8:30 - 9:00 Discussion.

NEXT WAR-TIME GRADUATE MEDICAL MEETING in Minneapolis will be held on November 23, 1943.

Subject: Physical Medicine
Frank H. Krusen
Miland E. Knapp

Meetings held every 2 weeks in Minneapolis. Also in Des Moines and Clinton, Ia.

III. PERIRECTAL ABSCESS AND FISTULA

INTRODUCTION

William C. Bernstein

Abscesses about the anorectal region are relatively common and are of extreme importance since improper care and treatment may lead to extensive necrosis of tissue, multiple fistulae and sphincter incontinence.

Abscesses occur at all ages but are most frequent in adults from twenty to fifty years of age.

The anorectal region is peculiarly susceptible to infection and abscess formation because of the anatomic relationships of the tissues involved. The crypts of Morgagni are frequently the seat of inflammation secondary to irritation produced by foreign bodies or other trauma. Infection easily spreads by direct extension or through the lymphatics to the fatty tissue of the ischiorectal fossae.

Any inflammatory process in the lower end of the bowel such as cryptitis, papillitis, fissure, inflamed hemorrhoid, stricture, trauma or perirectal inflammation from injections may provoke the formation of an abscess in this region. The use of chemicals in the injection treatment of rectal conditions has been a frequent etiologic factor in recent years.

E. coli, staphylococci and streptococci are the organisms which are most frequently found in rectal abscesses. Occasionally the gas bacillus or B. pyocyaneous is the offending organism. Contrary to general opinion, the B. tuberculosis is rarely found in rectal abscesses or fistulae in persons who do not have other tuberculous foci.

When inflammation with infection occurs in a crypt of Morgagni and the infection extends into the ischiorectal fossa, an abscess invariably results. The fatty and areolar tissue offers little resistance and the abscess develops rapidly. If the infection burrows under the skin or up along the bowel wall, either a subcutaneous or submucous abscess is formed.

When an abscess forms, the usual signs of inflammation present themselves, namely, pain, redness, heat, swelling and later fluctuation. The temperature and pulse are usually elevated and leucocytosis occurs. Some abscesses, however, which are caused by organisms of low virulence may develop with minimal symptoms.

Adequate and early incision and drainage of anorectal abscesses is the rule which must be followed in the treatment of this condition if serious complications are to be avoided. Delaying operation and treating the condition with sitz baths, hot packs, etc. causes further necrosis and extension of the process. Immediate incision is essential.

Buie states that it is not always easy to determine the opportune moment to incise an abscess, but in general it is best to allow the abscess to approach as nearly as possible the point of rupture. In special cases, he points out that it may be necessary to open the abscess immediately. By waiting the wall of the abscess may become well outlined and when it breaks through the surface of the skin or is incised through a thin partition, the wall of the abscess becomes continuous with the margin of the skin. The advantage of this method over the immediate incision method is that little normal tissue is incised, thus preventing the opening of new channels of infection. On the other hand, Fansler feels that if the abscess is opened as soon as the diagnosis is made, there is less likelihood of the infection invading further recesses of the ischiorectal fossae or extending beneath the anococcygeal tendon to the opposite fossa to form a bilateral abscess. In other words, the destruction of tissue and extension of the process is held to a minimum by early incision and the release of the pus which is under tension.

The abscess should be opened either by a crucial incision over the abscess or by the so-called "scalping" operation.

In this procedure a crucial incision is made and the flaps trimmed off with scissors until the external wound is as large as the abscess cavity. In this way the abscess cavity received adequate drainage and can be treated without the necessity of packing.

Where the source of the infection can be demonstrated in any one crypt, the incision should be carried to the edge of the sphincter opposite the crypt. If the abscess is not too large the incision may be carried through the muscle fibres to the crypt and the entire abscess and fistula operation completed in one procedure.

In those cases where the primary opening can be demonstrated but where it is deemed inadvisable to cut through the sphincter muscle at the time, a heavy silk thread (seton) is tied around the sphincter muscle. At a later date the sphincter is severed, thus completing the fistula operation with a minimum amount of difficulty.

After the abscess cavity is opened widely and good drainage is established, the cavity can be lightly packed with vaseline gauze or gauze soaked in 2% mercurochrome solution. Hot applications or hot sitz baths are started as soon as possible after the anesthetic has worn off, and the wound kept clean until healing is complete. After the original packing has been removed, further use of a pack is usually unnecessary.

Where only the opening of the abscess has been performed, it is best to inform the patient that a fistula most likely is present and further treatment will be required.

In rare instances ischiorectal abscesses which are not relieved by drainage break through the levator muscles and produce supralevator abscesses. Supralevator abscesses, on the other hand, when not incised through the rectal wall often break through the levators and present themselves as ischiorectal abscesses.

Abscesses occur at times in the retrorectal space. Here an ample incision should be made low on the posterior rectal wall and should be kept open by daily digital examinations.

An intramural abscess is often the result of infections or injuries to the bowel wall without perforation. Here the pus collects between the mucous and muscular coats of the bowel. This type of abscess usually ruptures into the bowel spontaneously if not incised. However, the abscess should be incised at its lowest point as soon as the diagnosis is made.

Because of the wide variations in the character of the abscesses involving the anorectal region, it is difficult to lay down rules which are specific in character. However, the following general rules should be followed:

1. Determine the source and extent of the lesion before surgery is attempted.

2. Consideration of the anatomical relationships of the region is important if the condition is to be cared for in the best possible manner.

3. Drainage, either as a preliminary or curative procedure, should be established at the earliest possible moment.

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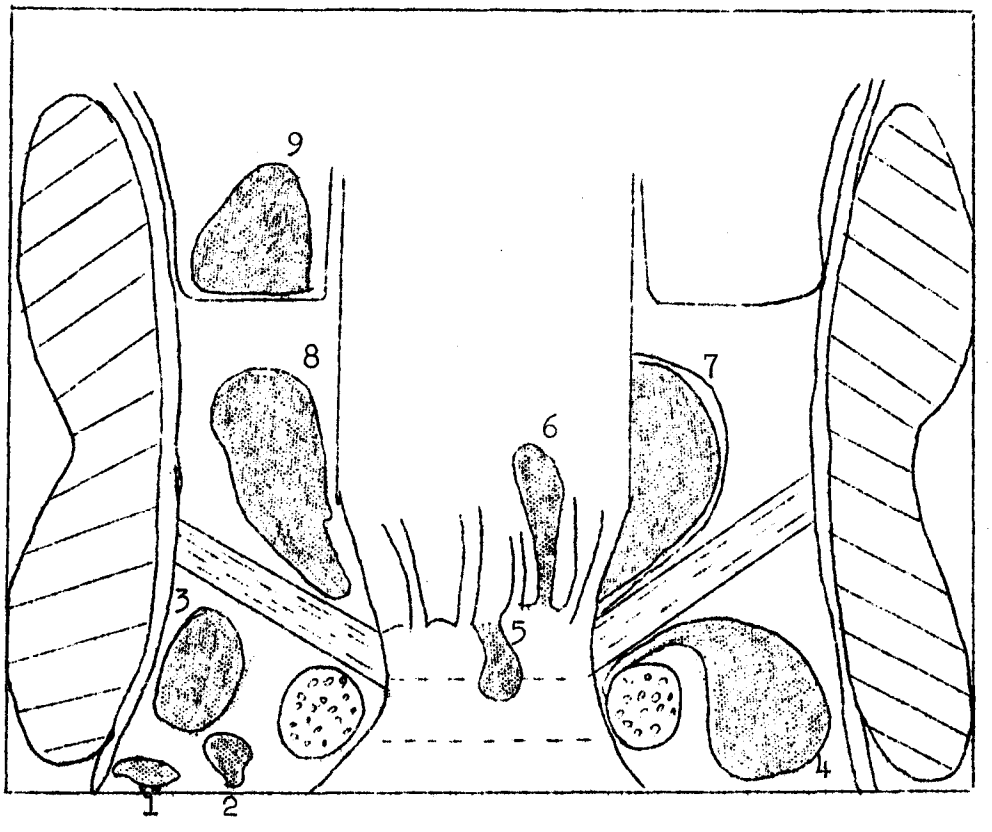
An anorectal fistula is a pathologic tract having its primary opening within an anal crypt or lower portion of the rectum and its secondary opening or openings on the external skin about the anus. Fistulae are practically always the sequel of abscesses in this region.

For practical purposes it can be said that anorectal fistulae begin as infections in the crypts of Morgagni followed by an abscess. With the external rupture or incision of the abscess a fistula is formed. There are some compli-

Diagrammatic Sketch Illustrating

The Various Types of Anorectal Abscesses



1-2	Cutaneous Abscesses
3	Infectious or Traumatic Abscess
4	Ischiorectal Abscess
5	Marginal Abscess
6-7	Submucous or Intramural Abscess
8	Supra-levator Abscess
9	Pelvic Abscess

cated types of fistulae which do not follow this general course.

Fistulae occur quite commonly and represent about one-fourth of all anorectal disease. The disease occurs somewhat more frequently in men. They are seen most frequently in persons under middle age.

The types of fistulae which are described are determined by their location and by the type of abscess which preceded them. We do not feel that fistulae should be classifed as complete or incomplete because incomplete fistulae are in reality blind sinuses and by definition a fistula must have a primary and a secondary opening. We prefer to classify fistulae by describing the position of the primary and secondary openings.

After an abscess about the anorectal region has been opened and drainage occurs, a fistula is present. In a short time the discharge usually changes from a purulent material to seropurulent fluid. In most instances the discharge soon ceases and the external wound closes. The fistula apparently is healed but sooner or later the abscess re-forms and the cycle is repeated. Openings usually result from recurrent abscess formation. In most instances the secondary openings are not far from each other but the sinuses may burrow considerable distances.

A draining external sinus in a patient who gives a history of having had a previous abscess in the anorectal region is good presumptive, though not positive, evidence that a fistula exists. The first effort should be to determine the direction and course of the tract. Oftentimes the sinus can be felt and traced by digital or bidigital examination. In many cases both openings can be demonstrated and in some cases a probe can be passed from one opening to another. In searching for the primary opening through an anoscope one must be on the alert to notice a minute drop of pus exuding from an orifice, a small tuft of granulation tissue or a small dimple-like scar on the surface of the crypt lining. A small curved crypt hook often aids the examiner in finding the primary openings, and where it is possible to use a bivalve speculum the crypt bases can often be spread so that defects in their bases are more easily seen.

Fistula tracts and openings high in the rectal wall are more difficult to find and one must be keen in his search, using the various methods at his disposal -- palpation, inspection, and probing. In many cases the extent of the tract and the location of the openings cannot be demonstrated until the patient is under an anesthetic and prepared for surgery.

The injection of dyes into fistulous tracts to determine their primary openings is often of value. Care should be taken to inject the solution under the most gentle pressure and peroxide or other effervescing materials should not be used. The use of dyes to outline the tract preliminary to surgery is seldom necessary or advisable. The lining of the tract has a characteristic appearance and we do not feel that staining of the tract gives additional help. Injection of dyes often confuses the operator when the dye spreads beyond the limits of the fistula tract or fails to penetrate some lateral branch of the sinus.

Treatment: The 4 cardinal points to be remembered in attempting to cure fistulae about the anorectal region are the following:

1. Find the primary opening.
2. Follow all tracts to their termini and open or excise them.
3. Remove all overhanging tissue, leaving broad flat wounds which do not require packing to keep open.
4. Carry out sufficient after-treatment.

If it is possible to pass a probe or a directoe through the tract from one opening to another, the procedure is quite simple. Laying the tract open and the excision of all overhanging edges so that a shallow trough results will cure the fistula. Bleeding points are controlled by pressure or by ligature.

In those cases where the secondary opening is apparent but a probe cannot be passed through the tract, the following procedure will be found useful. The probe or director is inserted into the tract as far as it will go. The tract is then laid open up to that point. It will now be found that the probe can again be inserted and the procedure repeated. After several segments have been incised, it may be possible to pass the probe through to the primary opening and complete the operation. If it is impossible to find the primary opening or if it is thought inadvisable to cut through to the opening in one operation, it is best to inform the patient that a small part of the fistula remains which will have to be taken care of with a secondary procedure.

Where mutliple openings are present, the connecting sinuses should be laid open and their edges trimmed away. It is well to remember that even though many external openings are present, there is rarely more than one primary opening into the bowel.

Where the secondary openings are in the bowel wall, the entire operation must be done through an operating proctoscope, but the principles of treatment are the same, namely, all tracts must be found and laid open. Complete excision of the fistula tract is seldom necessary.

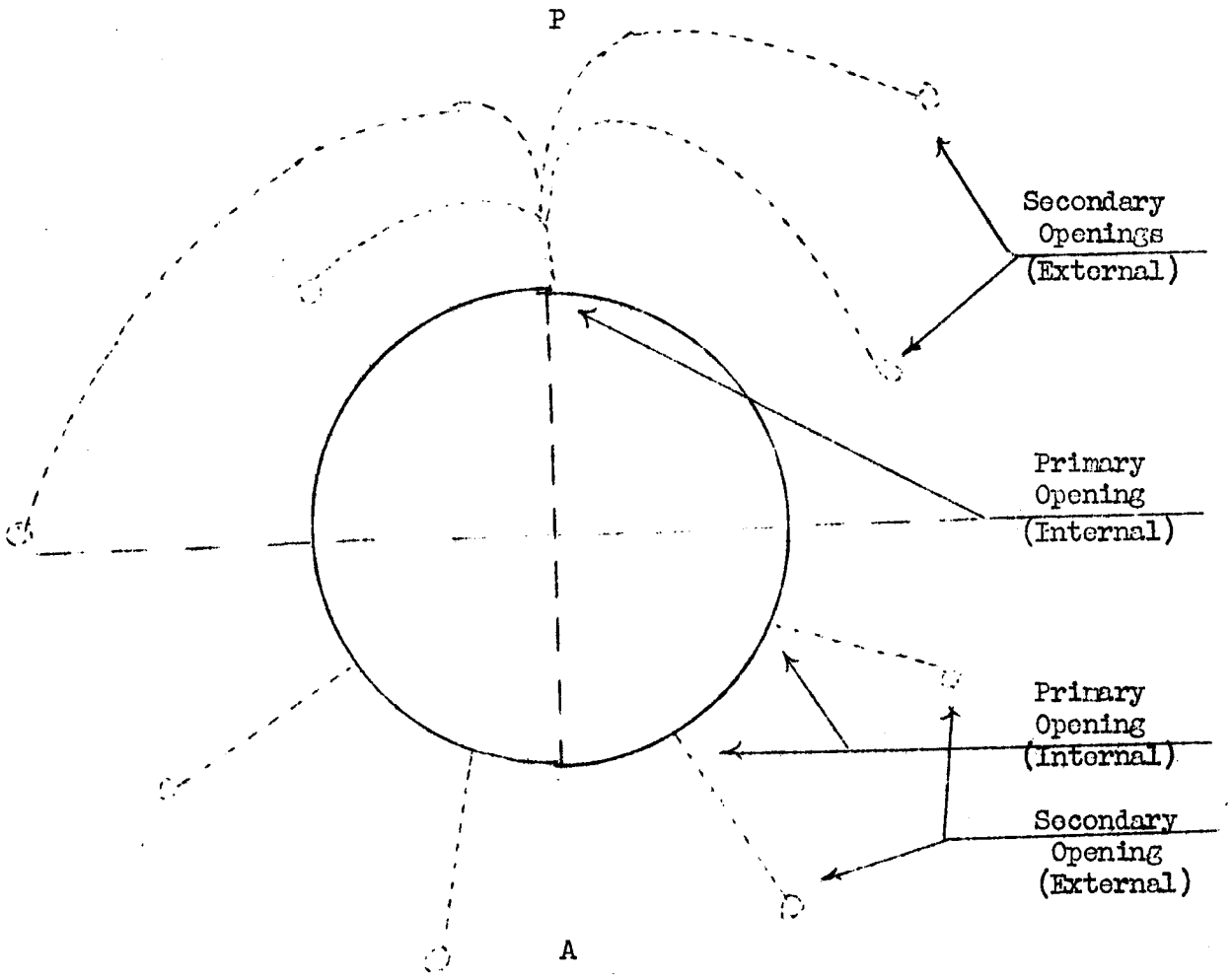
Cutting the Sphincter Muscle

Since most fistula tracts pass beneath the external sphincter muscle, the question of cutting through the fibres of the sphincter arises. It has been definitely established that cutting through part or all of the sphincter muscle is justifiable when it is necessary to do so to cure a fistula. There should be no hesitation in doing this, providing the fibres are severed at right angles and that proper care is given to the would postoperatively to prevent infection and improper healing. At times it is necessary and justifiable to sever the sphincter in more than one place. The actual control of the bowel is based almost entirely upon the internal sphincteric musculature which is rather infrequently involved in anorectal fistulae. The external sphincter is a voluntary muscle which aids in completing the act of defecation and acts as a voluntary emergency control in the case of a liquid stool or pressure of gas (a social asset).

Packing: After the fistula tract is open in its entirely and the overhanging edges removed, a gauze pack is usually inserted in the wound and left in place for from 48 to 72 hours. After that time the pack is removed and the wound kept clean by daily dressings and hot sitz baths. The use of the pack following operation is a controversial matter. It is our usual custom to insert a moderate sized pack but not to repack the wound after this pack is removed. Leaving the pack in the wound too long is undesirable. Healing of the sphincter is retarded or even prevented by too long a period of packing and a deep sulcus may result adding to the postoperative deformity.

Salmon's Rule: In the treatment of anorectal fistulae a helpful rule which may aid the operator in locating the primary opening was established by Salmon at St. Mark's Hospital in London.

If a line be drawn from one ischial tuberosity to the other, bisecting the anus anteriorly and posteriorly, a fistula which has its secondary or external opening anterior to this line will have its primary opening in an anterior quadrant located by drawing a straight line from the secondary opening to the anorectal junction. Any secondary or external openings posterior to the line will have the primary opening in the midline posteriorly.



Schematic Diagram to Represent the Relationship of the Primary to the Secondary Opening in Anorectal Fistulae

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DISCUSSION

INFLUENCE OF ANATOMICAL VARIATIONS IN THE FORMATION OF PERIRECTAL ABSCESS AND FISTULA

Walter A. Fansler

The variations in type and extent of perirectal abscess and fistula is well recognized - at least by proctologists. Why these variations occur has not been given much place in the medical literature. It is recognized that occasionally the origin of these lesions is in some distant point, as female genitalia, prostate, seminal vesicles, posterior urethra, infected sigmoid diverticulae, appendical abscess, Potts disease, high rectal stricture, pelvic infections, and other less frequent conditions. Occasionally the rectal wall may be pierced by some sharp object as a spicule of bone or a sharp sliver of wood, which has been ingested or by some object inserted in the rectum. The type and virulence of the infected organism may also play a part in the type and extent of the abscess. In one extreme a virulent organism may develop a large painful abscess involving the entire rectal fossa in a few days, while on the other hand, an attenuated strain may cause a slow almost painless inflammatory mass to

develop, which may take 2 or 3 months to reach the skin and rupture externally. These factors are well recognized.

The anatomical variant is one which has not been sufficiently emphasized, and is probably the one of greatest single importance. While abscesses and fistulas may occasionally develop from distant foci of infection, by far the largest number originate from an infection involving the crypts or a crypt of Morgagni. Tucker pointed out the formation of "preformed" ducts in the perirectal tissue and connecting with the crypts of Morgagni. Hill has done further anatomical studies on these structures and reconstructed modes of actual dissection. Tucker believes that infection develops in these performed ducts opening into the crypts, rather than in the crypts themselves. While I am convinced these ducts do exist, at least in some individuals, I believe that the original site of infection is in the crypt itself.

Before considering the anatomical variations, let us first consider the "standard" anatomy. The rectum is a tube consisting of two primary layers - namely the muscular layer and the lining mucous membrane. This tube terminates in the anal canal which is surrounded by certain muscular elements, and often some perianal fat. I use the term "certain muscular elements" because the surrounding muscular structure varies in different individuals, and is an important factor in the formation of abscess and fistula. The lining of the anal canal is squamous epithelium, which does not contain sweat glands or hair follicles. Contrary to some authors, there is a sharp line of demarcation between the mucous membrane lining the rectum and the squamous epithelium lining the anal canal. There is no such a thing as a gradual "will of the wisp" change from columnar to squamous epithelium - sometimes called "transitional epithelium." Since this lining is not mucous membrane and is not skin since there are no hair follicles and sweat glands, the term "anoderm" seems an appropriate one and will be used in future reference to this particular structure.

The Crypts of Morgagni are folds in the mucosa in its terminal portion just before it joins the anoderm. The point of juncture is usually a serrated line - the dentate line - though the size of the serrations are subject to wide variations. The terminal portion of the crypts often extend some distance (as much as a centimeter in extreme cases) underneath the anoderm. These blind pockets pre-dispose to infection and fistula formation. The folds on each side of the depression (crypt of Morgagni) are called the Columns of Morgagni, and they terminate by joining the anoderm which forms the anal papillae.

In general contour the terminal portion of the intestinal canal may open externally in one of 2 ways with all intermediate variations. First as a funnel-like aperture with the muscular structure high in the funnel, or almost as a protuberance extending level with the contour of the buttocks. In some instances upon straining the terminal portion of the gut will actually protrude to a point beyond the normal contour of the sitting position of the individual.

It is obvious that an abscess developing in a crypt of Morgagni in an individual with the funnel-type outlet is likely to have a more extensive lesion than where the condition develops in a rectum which terminates very nearly at the surface of the body. Another factor which influences the abscess formation is the length of the anal canal where the juncture of the anoderm and mucosa occurs. The final factor is the location, size and development of the sphincteric musculature. In some instances the anal canal - that is the portion of the tube lined with anoderm, may be two inches in length and in this case, the terminal portion of the crypts of Morgagni lie two inches within the body. In others the anoderm will not extend inward more than a small fraction of an inch. In this case the rectal mucosa (i.e., the crypts of Morgagni) extend almost to the surface of the body. It is obvious that infection developing in crypts of such different situation, will produce entirely different types of

abscess. In one case the entire fossa is likely to be involved. In the other a more superficial abscess is likely to result.

With the variation of the location of the crypts in regard to the anus, there is also the variation as to their relationship to the sphincteric muscles. Where the anal canal is long and the crypts are high, they are likely to be situated at a point above where the sphincter encircles the anus. Therefore any infection developing in a crypt above the sphincter, is likely to involve the muscle in the process and necessitates its division, in curing the resulting fistula. On the other hand where the crypts are located low in the anal canal, they are more likely to terminate below the sphincter, and hence an abscess from a crypt of this type does not involve the sphincter. This variation is doubtless the cause why in some cases it is necessary to divide the sphincter to cure a fistula, while in other cases this necessity does not exist.

Still another factor enters the picture, and that is the type and location of the sphincters. These are usually described as the internal and external sphincters. The external sphincter is a definite band of muscle tissue surrounding the anal canal and enclosed in a sheath. Anteriorly and posteriorly the muscle thins out some of the fibers inserting into the anococcygeal tendon and anteriorly into the conjoined tendon. A portion of the fibers do completely surround the anal canal.

The internal sphincter is less definite. Altho this is sometimes described as a separate muscle, I think it better described as the internal sphincteric ring. This ring is composed primarily of the terminal portion of the levator ani muscles and the terminal portions of the longitudinal and circular muscular layers of the rectum. This muscular body may be represented as a thick constricting structure. Likewise the point of termination of the levators may be quite high above the termination of the rectal muscles proper. It may be at a point below the rectal muscles. In this case two distinct bundles of internal sphincter fibers can be isolated. In other instances the circular and longitudinal muscular layers do not terminate at the same point caudad, so that 3 internal sphincter bundles may be differentiated. Thus it is possible that an infectious process may extend into the ischiorectal fossa between any of these internal sphincteric bundles, thus necessitating the division of one or two of the internal sphincteric bundles, but not the third. In most cases, however, these muscular elements are a rather compact whole. The relationship between the internal and external sphincters, however, is subject to definite variation. These bands may be closely approximated, or they may be quite wide apart. It is quite easy in many instances by palpating the anal canal to feel a distinct space between these muscular bands. This is why in most instances that where the muscle is involved, it is only the external sphincter.

While not invariably true, the point of penetration of the infection, whether high or low in the ischio rectal fossa (and often whether above or below the sphincter) is a factor in the extent of involvement of the ischio fossa. Where the penetration is high a greater destruction of tissue is present. This is due to the fact that the site of origin is higher in the fossa and also to the fact that it takes longer for the abscess to reach the surface externally. While this is occurring the pus is under tension and the process extends in other directions, as well as toward the external surface of the fossa. An abscess which originates in one fossa may extend to the other, either posteriorly underneath the anococcygeal tendon, or anteriorly along the sheath of the transverse perinei muscle. In the case of the anococcygeal tendon, this may be either deeply or superficially placed. If superficially placed the abscess is more likely to lie above it and hence spread across behind it.

In conclusion, if perirectal abscesses and fistulas are to be cared for to the best advantage, it is necessary to know what can occur when an infection develops. A knowledge of the anatomical variations

which occur in this region and how they may influence the spread and progress of these infections is essential.

The most important factors are:

1. The length of the anal canal and the location of the crypts of Morgagni in respect to the anal orifice.
2. The variations in the formation, location, and relationships between the sphincteric muscles.
3. The location of the crypts of Morgagni in relation to the sphincteric muscles.

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NOTES

A carefully elicited history should be made a part of the record of every patient who presents himself to the physician with complaints that are referable to the ano-rectal region and colon. There are many times when a more concentrated and diligent search will be made for pathologic findings when a well-taken history suggests definite disease. So diligent should the search be made that when the findings on procto-sigmoidoscopic examination fail to reveal disease, an x-ray study of the region should be ordered.

The symptoms which are most commonly complained of by patients suffering with disease of the colon and ano-rectal region and which require complete investigation are the following:

1. Bleeding
2. Discharge
3. Diarrhea
4. Constipation
5. Changes in bowel habits
6. Pain
7. Protrusion
8. Swelling
9. Abnormal sensations (itching, burning, crawling, sense of fullness or weight in rectum)

The necessity for proceeding with a complete and thorough examination of all rectal patients is no longer questioned. Gone are the days when it is justifiable for a physician to omit this examination because it may be disagreeable or embarrassing to the patient. A well conducted proctologic examination should be no more obnoxious to a patient than an examination of any other part of the body.

It is well for all persons interested in performing examinations of the ano-rectal region to develop a systematic approach to the problem. Only in so doing will all details be carried out in every case.

The following maneuvers can be systematically carried out in almost every case.

1. Inspection of the external parts.
2. Palpation of the external parts.
3. Digital and bidigital examination.
4. Anoscopic examination.
5. Procto-sigmoidoscopic examinations.

There are a few cases where pain, tenesmus or the physical condition of the patient may preclude the possibility of a complete examination.

IV. GOSSIP

We nominate for distinguished service Wesley William Spink for coming to the assistance of Rosalind Russell on her recent visit to Minneapolis on connection with studies of Elizabeth Kenny whose life she is to portray in a movie. Marcus Rabwin, Minnesota graduate 1926 called last Friday after Staff Meeting to ask me to locate Rosalind Russell who had missed her monthly check-up while enroute to Minneapolis. This is a monthly practice for all screen players as their lives are heavily insured during production schedules. Miss Russell was located without difficulty but preliminary preparations were difficult to make as most places called thought they were being kidded. Miss Russell arrived in due time, accompanied by Mary Kenny and again created a sensation in the hospital (almost as much as on her first visit). The necessary inspections were made and Miss Russell was on her way. Needless to say, our good friend Wesley has been the object of much attention since the inoident....Last Saturday morning Mary McCarthy, script writer for the picture, paid a visit to the office to discuss some phases of the story. Miss McCarthy is one of those voluable Irish persons who likes a good story and can also tell one. Her description of the proposed picture indicates there will be many dramatic incidents from Miss Kenn's life contrary to impressions the story will be concerned only with the polio incident. For one who has been separated from daily association with Hibernians (en masse) the presence of Rosalind Russell, an Irish girl from Connecticut, who is one of a family of nine, Mary McCarthy of San Francisco, Sister Kenny who belongs to the Kilkenny Cat Clan all at one time was quite an event.....At the dinner in honor of the Public Health representatives from Mexico, Central and South America last week Dr. Mario Prado-Lefort, Santiago responded for the group. Dr. Vargas had acted as interpreter for the day for those who found our English too difficult. The good South American representatives told us frankly that none of them had heard of the University of Minnesota before coming here, but that they were impressed with its size and obvious importance. They felt that here there was a desire to serve others with our knowledge and not necessarily just academic achievement for its own sake. They urged more cultural representatives from the United States and less Business. They hoped as they had learned from us that we might visit them and bring away something of value (we must not forget this). In conversation during dinner they said they found our meals rather simple and tasty. Missed their meat and after one hears them talk of how much beef they have, it is difficult to imagine they really liked our food. We asked politely if they ate anything besides beef and they said yes, sometimes pork but never mutton which they sent to their English cousins. The guests were introduced and I am glad someone else had the job, for this is the line-up: Alberto Zwanck, G. H. Paula Souza, Herman Romero, Mario Prado-Lefort, Ortelio Martinez-Fortun, Miguel E. Bustamante, Carlos Enrique Paz Soldan, and Federico J. Salveraglio. After the dinner the visitors saw the homecoming show in Northrop and were highly entertained by the antics of the North American students. It was a most pleasant day and everyone learned a great deal about the different customs and practices of the various countries...Lt. Boone Haddock, 22 year old Army Airforce officer was a recent caller at the University. He is an ex-patient of the U. S. General Hospital 26 and came here to thank the University for its contribution to the war effort. He was a visitor at the home of Mr. and Mrs. Stowe Elliot of St. Paul whose son had been his buddy while in training in this country. Lt. Elliot was killed in a crach before they left. Lt. Haddock crashed in Sicily, and was taken to #26 for treatment. The nurse in charge of the operating room was Lt. Elliot, sister of his friend who had been killed. They had been looking for one another since they landed. He couldn't say too many good things about the hospital and especially the work of Major John R. Paine. At a luncheon in his honor he told many stories about the hospital and also had many things to tell Mrs. Paine about what a wonderful surgeon her husband is....