

MINOR SURGERY

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MINOR SURGERY

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PREFACE

IT is not an easy task to define precisely the limits of "minor" surgery, and the author is conscious that this little manual is open to criticism in that it is either incomplete, or that it contains matter which deals with major rather than minor surgery. However, it is intended to be a guide to hospital residents, and an aid to practitioners who, from choice or necessity, feel called to deal with minor surgical problems or common surgical emergencies.

I am indebted to my friends and collaborators for their assistance in revising chapters dealing with subjects of which they have special experience, and I am glad to have this opportunity of expressing my grateful thanks to the publishers for their ungrudging help and patience expended in the production of *Minor Surgery*.

R. J. McNEILL LOVE,

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Royal Northern Hospital.

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MINOR SURGERY

CHAPTER I

EXAMINATION OF THE PATIENT

HISTORY

A CAREFULLY taken history is of great importance, especially in such conditions as gastric and duodenal ulcer, or cholelithiasis, in which physical signs may be completely absent.

It should include, amongst other things, the age of the patient, occupation, and, if a woman, the condition of the catamenia, number of children, and miscarriages.

INSPECTION

The often-repeated and, on the whole, sound advice of "Eyes first and hands after," is to be remembered. Satisfactory inspection can only be carried out in a good light, and the surgeon will be well advised to carry with him a small pocket-torch, which is especially useful for examining throats, and testing for translucency and transillumination.

The patient's position should be noted and is often characteristic. If suffering from cervical caries, he will hold the neck stiffly with the head projecting slightly forwards, and the chin may be supported in his hands, whilst if psoas spasm is present, e.g. some cases of acute appendicitis, he will keep the hip joint flexed, so that when walking, he bends forwards, and when lying, he draws the knee up on the affected side. Other points of which the surgeon may note include jaundice, anæmia, cachexia, recent wasting, obvious

swellings such as thyroid enlargement, ptosis palpebræ, unequal pupils, proptosis, and movement of the alæ nasi.

It is sometimes easier to see than to palpate, as, for example, in gastro-intestinal peristalsis.

Whenever possible, during the examination of a part, it is important to have its fellow of the opposite side exposed for purposes of comparison. This especially applies in the case of the limbs, joints, and breasts. If one knee joint is affected, the two lower extremities are compared to determine the presence of swelling, position of ease, limitation of movement, muscular wasting, and alteration in length (Fig. 1).

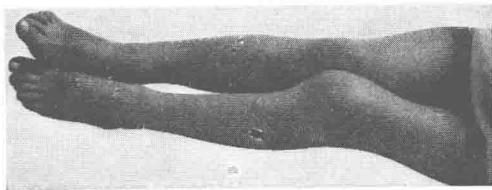


FIG. 1.—Tuberculosis of the left knee joint, showing flexion, swelling of the joint, and wasting of muscles.

PALPATION

This method of examination should be performed gently, carefully, and systematically. If a lump is palpated, its size, shape, consistency, tenderness, position with regard to neighbouring structures, i.e. fixation to skin, deep fascia, muscles, and bone, are determined, as also the condition of the regional lymphatic glands. When the abdomen is palpated, it is very necessary to have the hands warm, to feel gently, and to commence with that part of the abdomen remote from the suspected area. During the examination, successive areas are systematically palpated, the anatomy of each being visualised at the time. In cases where information may be

gained rectal examination should always be included, the patient lying on his left side or adopting the genu-pectoral position, the latter being preferable for examination of the prostate, vesicles, and base of bladder. There is a tendency on the part of the inexperienced to omit this valuable examination and therefore it will be considered in some detail. The anus and peri-anal region are inspected for fistulæ, external hæmorrhoids, fissures, a sodden whitish condition of the skin, resulting from excessive secretion of mucus, a glazed appearance sometimes seen in the worst types of pruritus ani, prolapse, and intussusception. A finger-stall is placed on the index finger and freely vaselined, the patient being told to "strain down," upon which, that part of the anal canal which has now become visible having been inspected, the pulp of the finger is gently introduced. The anal canal is examined and in pronounced cases of internal hæmorrhoids, longitudinal folds may sometimes be felt. Anteriorly at the upper end of the canal, abscesses in connection with the glands of Cowper may be palpable, as also is the apex of the prostate gland. At this level, posteriorly and laterally may be felt the indurated openings of ischio-rectal fistulæ, or the presence of a submucous abscess. About $1\frac{1}{4}$ in. above the apex of the prostate may be felt the base, or rather a curved fold concave upwards, formed by the vesiculæ seminales. In the concavity and a little higher up is the base of the bladder. At each side of the posterior surface of the prostate is a lateral groove. Posteriorly, above the level of the anal canal can be felt the sacrum and a little laterally the nerve trunks of the sacral plexus, and the ischial spine. Some little distance above this the anterior surface of the sacro-iliac joint (and sometimes an abscess in connection with it) is palpable. Just above the vesiculæ anteriorly is Douglas's pouch, and in it may be felt a pelvic abscess, hæmatocele, secondary malignant

deposits, or very rarely a gall-stone in a loop of small intestine.

In the bowel itself a polyp, carcinoma, benign stricture, or intussusception may be palpable, whilst the presence or absence of fæces and any ballooning should be noted. When the finger is withdrawn, it should be examined for blood, or blood-stained mucus ("red-currant jelly") which is frequently found in acute intussusception.

PERCUSSION

Percussion may be very helpful in the examination of the abdomen and thorax. It is particularly useful in determining the presence of free fluid, enlargement of the liver or spleen, the character of a swelling, whether gaseous or non-gaseous, and its relation to the bowel.

AUSCULTATION

In addition to thoracic conditions, auscultation of the abdomen is particularly useful in cases of suspected intestinal obstruction, in which case rumbling sounds are audible, due to peristaltic waves endeavouring to force contents past the obstruction. Conversely, a "silent" abdomen is typical of general peritonitis and ileus.

THE ACUTE ABDOMEN

Its Investigation.—The first question to ask is, How long has the patient been ill, and was he quite well before? The next, What was the first symptom? If *pain*, did it come on suddenly, as in a perforated gastric or duodenal ulcer (when the patient usually knows the exact time of onset), or gradually even though rapidly increasing in intensity, as in acute appendicitis; is it constant, or intermittent and colicky as in intestinal obstruction; its position at onset and its present position? If due to acute

appendicitis, it frequently starts in the neighbourhood of the umbilicus or all over the abdomen, then settles in the right iliac fossa.

Vomiting is considered next as to the time of onset, frequency, character, and quantity. The condition of the bowels may have an important bearing on the case, and questions may be asked concerning constipation, passage of flatus, diarrhœa, blood, and mucus.

A previous history of indigestion due to gastric or duodenal ulcer, colicky pains of chronic obstruction, gall-stones, or of an attack of acute appendicitis may be obtainable.

On Examination.—The appearance of the patient should be noted, especially with regard to position, facies, tongue, respiration, pulse, temperature.

Abdomen.—On inspection, is it distended, the position of the distension, the presence and direction of peristalsis ; does it move with respiration, presence of scars ? On palpation, is there any tenderness, hyperæsthesia, rigidity, or lump, and in the event of the last, what are its characteristics ? On percussion, is there free fluid in the peritoneal cavity, and is there any enlargement of the liver ?

Per Rectum and Vaginam.—The presence of fæces in the rectum, ballooning, carcinoma, the apex of an intussusception, an abscess or secondary deposits in Douglas's pouch, a gall-stone in a loop of small gut, acutely inflamed Fallopian tubes and ovaries, and vaginal discharge should be noted.

The **Chest** must not be forgotten, as pleuro-pneumonia is not infrequently the cause of severe abdominal pain. The urine and knee-jerks should also be examined, and if necessary a leucocyte count undertaken.

As a general rule, acute abdominal conditions including ruptured gastric or duodenal ulcer, ruptured ectopic gestations, a strangulated loop of gut, and acute appendicitis manifest themselves by "periton-

ism," which is a condition of shock, abdominal pain, and vomiting. After a few hours these symptoms diminish in intensity, and in the case of a perforated peptic ulcer a "period of delusion" supervenes, during which time the patient looks and feels better. If the perforation is missed, general peritonitis supervenes and the patient's life is then in serious jeopardy.

Peritonitis is recognised by a bursting or burning pain, tenderness, rigidity, immobility of the abdominal wall, constipation, the temperature rises and then gradually falls, while the pulse steadily rises. Later Hippocratic facies, the frequent vomiting of small quantities of foul fluid, and marked distension are evident. There may be diminution of the liver dullness in cases of perforation of the bowel or stomach.

Acute Intestinal Obstruction produces severe colicky pain, absolute constipation, diagnosed by the absence of any response of fæces or flatus to the second enema, vomiting which gradually becomes darker in colour, sometimes described as fæcal, and distension. Before the onset of peritonitis, pressure on the abdomen is painless and sometimes tends to relieve the colic.

The majority of acute intestinal obstructions result from strangulated herniæ. Therefore in any case of intestinal obstruction, all the external hernial orifices should be carefully examined, as it is quite possible to overlook a small strangulated femoral hernia in a fat woman. In some cases of strangulated hernia, peritonism is slight or absent, and during the first 12 hours, the clinical picture may be coloured almost entirely by the local signs of the rupture, which becomes larger, painful, tense, tender, and there is loss of impulse on coughing. During this period, there is usually colicky abdominal pain referred to the umbilicus, and absolute constipation, no flatus being passed. Sometimes, fæces or flatus may be evacuated from the lower bowel, but there will be no response to a second enema, unless a Littre's or Richter's hernia

be present. It may be mentioned that an inflamed gland, appendicitis in a hernial sac, and torsion of an incompletely descended testicle may present difficulties in the differential diagnosis. In connection with the first of these three conditions, a strangulated femoral hernia is sometimes simulated by an inflamed gland at the saphenous opening.

Intussusception.—This is by far the commonest cause of obstruction in young children and must always be thought of first. The usual history is that a child (usually a boy under the age of one year, as weaning or unsuitable food causes enteritis and consequent swelling of Peyer's patches), previously quite healthy, was suddenly seized with severe abdominal pain, and usually vomiting. After a short while, the attack passed off and the child went to sleep, to be awakened a few minutes later by another similar paroxysm. The bowels are constipated, although blood-stained mucus or motion is often passed.

On examination the child is in a degree of collapse depending to some extent on the duration of the condition. The abdomen is not rigid between the attacks, neither is it distended, and a sausage-shaped tumour is usually felt above the umbilicus or on the left side of the abdomen, its concavity directed towards the umbilicus. If possible the palpation should be carried out while the child is sleeping in the intervals of pain. The right iliac fossa usually feels empty—Dance's sign—and per rectum, the apex of the intussusception is occasionally palpable. An almost constant and very important sign is the presence of blood on the little finger with which the rectal examination has been made.

Operation should be performed immediately.

ROUTINE EXAMINATIONS

For the use of students in particular, it is well to emphasise that as far as possible routine methods of examination should

be adopted, so that important points are not omitted. The instances given below will serve as examples.

An Ulcer

Site, e.g. 95 per cent. of rodent ulcers occur on the face and forehead above a line joining the ala of the nose and the lower border of the ear. Carcinoma affects the lower lip, while a primary chancre is usually on the upper.

Size, particularly in relation to the length of history, e.g. a carcinoma extends more rapidly than a rodent ulcer, but more slowly than an inflammatory ulcer.

Shape, e.g. a rodent ulcer remains circular until of a larger size than a carcinoma. It is stated that a rodent ulcer only becomes irregular when it encroaches on an area of skin possessing a different sensory nerve supply, when temporary arrest occurs. A gummatous ulcer is typically circular, or serpiginous, due to the fusion of multiple circles.

Edge; a rodent ulcer is rolled or rampart, an epithelioma everted, while a tuberculous ulcer has an undermined edge (Fig. 2).



FIG. 2.—1. Healing ulcer, edges shelving. 2. Tuberculous ulcer. 3. Rodent ulcer. 4. Epithelioma.

Floor; a “wash-leather” slough may cover the floor of a gummatous ulcer, while a tuberculous ulcer often exhibits watery granulations.

Base, whether indurated, e.g. infiltration of carcinoma, or attached to deep structures, e.g. a varicose ulcer to the tibia.

Glands, not enlarged in the case of a rodent ulcer, unless due to infection. May be enlarged and hard in the case of carcinoma, or shotty if their enlargement is due to a primary chancre.

Discharge, whether gummatous, watery, or sanious. Organisms may be detected, e.g. spirochætes, tubercle bacilli, actinomycosis.

Section, e.g. may confirm suspicions of carcinoma.

A Joint

Inspection, which is carried out in an adequate light, with the corresponding joint uncovered and placed in a similar position for purposes of comparison. Inspection will reveal any deformity, e.g. "triple deformity" of an old tuberculous knee, which is flexed, subluxated backwards, the foot being externally rotated. Wasting of muscles is always present in the case of tuberculous joints. Swelling may be obvious,



FIG. 3.—A Baker's cyst associated with osteo-arthritis of the wrist joint. The patient had been digging daily for forty years.

either distension of the joint cavity, as in the case of Charcot's disease, or fusiform from synovial and peri-articular œdema, so typical of tuberculous joints. Abnormal swellings may be seen, such as Baker's cysts, due to protrusion of the synovial membrane through the capsule, which particularly occur in cases of Charcot's disease and osteo-arthritis (Fig. 3).

Palpation, which may confirm a diagnosis of dis-

location, in that an articular end of a bone is found in an abnormal position. Tenderness in the region of the joint, and the temperature of the skin, are also noted. The presence of fluid may be detected, e.g. by the "patellar tap" in the case of the knee joint.

Movements; the patient should first endeavour voluntarily to move the affected joint, the degree of movement and condition of adjacent muscles being noted. The sound joint is then put through its full range of movements, which manœuvre allays nervousness of the patient, and forms a standard of comparison. The affected limb is then moved in appropriate directions, and any limitation of, or additional, movement, e.g. telescopic hip, is recognised. Pain on movement may occur only in certain directions, and this is often of diagnostic value: for example, in the case of inflammation of the subdeltoid bursa abduction of the arm is painful, whereas rotatory movements cause no pain; this feature distinguishes subdeltoid bursitis from arthritis of the shoulder joint, in which case all movements are painful.

Grating on movement is typical of osteo-arthritis, and is due to erosion of the cartilage on pressure points. In the case of Charcot's joints a painless soft crepitus is often detected, similar to the "crunching" produced on compression of snow.

Measurement, which confirms wasting of muscles or swelling of the joint. Alteration of the length of the limb can be accurately estimated, and in the case of the hip joint the base of Bryant's triangle should be measured.

General Examination, which may confirm the tentative diagnosis of the joint condition. Thus absent knee-jerks and the presence of Argyll-Robertson pupils will support a diagnosis of Charcot's joint. Other evidence of syphilis or tuberculosis may be found if joints are affected by these conditions.

Special Examinations, which include X-ray,