within the related foramen may be so seriously lessened as to set up sciatic pain.

In these cases the maximum tenderness is over the affected articulation, and protective sciatic scoliosis is usually present. Treatment must be by prolonged recumbency and immobilization of the spine, if necessary in a plaster shell, combined with hyperaemia. In the convalescent stage a supportive brace must be worn and postural re-education begun. In one resistant case Putti resected the diseased posterior articulations, with good effects.

CONCLUSIONS.

Cases of low backache and sciatica form a distinct orthopaedic group. They are capable of definite scientific analysis and classification.

To study them intelligently requires an appreciation of certain main problems which are indicated. The factors of trauma, anatomical type, good and bad posture, of anatomical variations, and of pathological lesions of the spine are all concerned in what is really a combination problem.

To make our diagnosis more accurate a routine and systematic method of physical examination is required.

Skilled interpretation of good x-ray photographs, by those familiar with the clinical picture, is the most valuable accessory aid in support of the diagnosis made by the history and examination.

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PERFORATED DUODENAL ULCER SIMULATING ACUTE APPENDICITIS.

BY

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CASES of perforated duodenal ulcer simulating appendicitis in normal people are, I believe, comparatively common. The symptoms presented in such cases are usually so urgent that there is no difficulty in making a diagnosis. Those who have seen the acute abdomen in the insane, however, will no doubt agree that there is a real difficulty in making up our minds that there is anything urgent and requiring immediate attention. Yet, if a waiting policy is adopted, the consequences are usually disastrous. The following case presents unusual features of interest.

The patient, a man aged 36, was admitted to this institution on October 26th, 1921, suffering from dementia praecox. He was dull and sullen, never speaking voluntarily or taking any interest in his surroundings whatever. He was quite unemployable, and was occasionally impulsive and destructive. He suffered from an intractable form of impetigo, but was otherwise in quite good bodily health.

On May 13th last he vomited once, just before being put to bed at 10 p.m. His temperature, pulse, and respirations were normal at the time, and he did not complain of pain, and looked quite well. He got up next morning at 7.30, apparently quite well, had breakfast at 8, and vomited soon after. His pulse, temperature, and respirations were normal. He was, however, put to bed for safety, though he looked well and did not complain. At 1 p.m., five hours later, his pulse rate had risen to 102 and his temperature to 101° F. He then looked ill. He lay absolutely still on his back with his right leg slightly drawn up. His tongue was dry and furred, respirations about 22, but his abdomen moved fairly well rhythmically. On examination there was some rigidity of the abdominal muscles on both sides, but nothing marked. There was no superficial tenderness, but the patient resented deep palpation of the right iliac fossa, though he did not seem to mind deep palpation of the left side. The heart and lungs were normal; the urine also was normal. He would not reply to questions as to his condition and gave little help. He, however, undoubtedly suffered from an acute abdomen; a provisional diagnosis of acute appendicitis was made, and the patient was hurried to the operating theatre.

Operation.—A right paramedian incision was made, the right rectus being drawn inwards. The peritoneum was incised and was found to be acutely inflamed. A lot of dirty-looking non-purulent

fluid exuded. After careful separation of recent adhesions between coils of small intestine the appendix was isolated and, except for the general peritonitis present, was found to be quite normal. It was removed. The original incision was next prolonged upward for about two inches, and the right side of the abdomen explored. A lot of the turbid fluid was tracking downwards, and on exposing the duodenum (second part) a fairly large perforation was found with prolapsed mucous membrane showing. There was little induration round the perforation, which admitted the tip of the middle finger easily. It seemed to be of the nature of an acute duodenal ulcer. A purse-string suture was inserted round the perforation and the ulcer buried. The right side of the abdomen was next irrigated with warm normal saline and drainage tubes were placed in the lower part of the wound to drain the pelvis, and also tubes were inserted in the right lumbar region through an incision in the right flank.

The patient made an excellent recovery. Ten days later, however, he commenced vomiting during the night, and right up till noon next day, when the vomited matter became faecal. All food was stopped and the patient only allowed to drink the following:

R. Sod. bicarb.	1 part
Mag. carb. pond.	2 parts
Calc. carb.	2 "
Bismuth oxycarb.	4 "
Water q.s. to a cream consistency.	

Sig: 3i in 3iv water every two hours.

Vomiting ceased two hours after taking the first dose, and from that time onwards the patient made an uninterrupted recovery, his abdominal wound healing up by granulation.

The points to remember in this case are:

1. The perforation took place at least some eighteen hours before operation, probably soon before 10 o'clock the night previously, when he vomited for the first time.
2. There were no constitutional disturbances until after breakfast next morning at 8 o'clock, and then only very little after that.
3. The great difficulty in diagnosis owing to the patient's mental condition and lack of positive symptoms.
4. The threshold for pain in this case was very much lowered.
5. The importance of eliminating acute disease in the patient's other systems, such as respiratory, vascular, and urinary.
6. The usefulness of an alkaline bismuth mixture in relieving high intestinal obstruction, due to oedema of mucous membrane at the site of an ulcer.

I am greatly indebted to the medical director, Professor J. Shaw Bolton, for his able guidance during the operation and for kind permission to publish details of this case.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A PLASTIC PROCEDURE IN THE MASTOID OPERATION.

SEVERAL methods are in vogue for obtaining an epithelial flap or flaps in the radical and conservative mastoid operations which, although in practice they appear sound on theoretical grounds, are not infrequently disappointing. In both these operations I have employed the following simple procedure with gratifying results.

The posterior cartilaginous wall of the meatus is separated from the corresponding bony portion, and the cartilage is transfixed by a flap-knife or tenotome at the upper end of the junction between the external auditory meatus and the concha, and divided vertically along this line through a length corresponding to the vertical diameter of the meatus. From the upper end of this incision another is carried inwards at right angles through the whole width of the cartilaginous meatus, a rectangular flap being thereby obtained with its base attached to the inferior wall of the cartilaginous meatus. The cartilage included in the flap is excised.

The flap is now held aside by tissue-forceps until the "bone-work" of the operation is completed. This done, a small crescent is excised from the inner cut edge of the concha to produce a large meatal orifice. The flap is next turned down on the lower wall of the operation cavity and its outer edge sutured to the skin edge of the lower part of the inner semicircular conchal margin, sufficient of this having been removed by the crescentic excision to make room for the edge of the flap without kinking it. The deeper part of the flap is maintained in position by wool or gauze packing until it has become united by granulation tissue to the inner wall of the operation cavity; when this occurs packing may be dispensed with. The discharge is gently mopped away and the walls of the cavity are treated twice daily with a stimulating lotion such as lotio rubra; hydrogen peroxide should not be used, since it tends to undermine the flap.