inal findings should prompt the examination of the more accessible left adrenal region before the abdomen is closed.

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Rovsing's Sign

In 1956 Davey reported a study of Rovsing's sign (Rovsing, 1907, 1908) based on a series of 303 consecutive cases of acute appendicitis. He found the sign in five cases. In an earlier study Yasui *et al.* (1953) failed to elicit the sign in any of 354 cases of acute appendicitis. This discrepancy is here examined.

At the time of operation we inserted a large-gauge needle (1 mm. diameter) into the caecum and attached to it a

the caecum and there was no movement of the contrast medium towards it.

Tests in cadavers gave similar results; although, if the colon was inflated with gas to five or ten times its normal size and thus converted into a single continuous tube, Rovsing's theory became true. But this would not happen in the living subject. From these observations, therefore, it seems reasonably certain that Rovsing's sign cannot occur in acute appendicitis.

ROVSING-LIKE SIGN

During this three-year investigation we encountered in 14 cases a sign rather similar to Rovsing's sign. In these cases (Table I) the sigmoid colon was either lying in direct contact with the inflamed appendix or attached to it by fibrinous adhesions. When the left iliac fossa was compressed the irritable appendix was rubber or dragged upon by the sigmoid colon and pain resulted. The sign was also observed in cases without appendicitis where the sigmoid colon was distended with gas or faeces. In these cases the sign elicited less pain (Table II), and was probably due to direct compression or traction of the sigmoid itself.

COMMENT

Davey (1956) concluded that Rovsing's sign was uncommon, that when present it indicated an inflammatory lesion in the right iliac fossa lying in direct contact with the parietal peritoneum, and that the probable cause of the pain was a momentary vibration or displacement of the abdominal wall or abdominal contents leading to friction

TABLE I.—14 Cases with a Rovsing-like Sign

Case No.	Diagnosis	Age and Sex	Rovsing-like Sign	State of Appendix	Pathological Anatomy of the Sigmoid Colon	Remarks
1	Appendicitis	26 F	±	Catarrh	In direct contact with inflamed appendix, but not adherent; slightly elongated and mobile	Appendicectomy
2	Appendicular colic	21 F	±	No inflammation	In direct contact with appendix, inflated with gas	"
3	Appendicitis	19 M	+	Gangrene extending to caecum	In direct contact with appendix, inflated with gas	"
4	Caecum mobile; sigmoid elongated and mobile	17 F	+	No inflammation	Elongated, mobile, inflated, and filled with faeces	Laparotomy as acute abdomen; appendicectomy and sigmoidectomy
5	Appendicitis	21 M	+	Catarrh	In direct contact with inflamed appendix	Appendicectomy
6	Caecum mobile; sigmoid elongated and mobile	21 M	±	Already removed	In direct contact with caecum, atonic, and inflated with gas	Sigmoidectomy, caecoplication
7	Appendicitis	22 F	+	Catarrh	Overlying caecum and appendix	Appendicectomy
8	"	19 F	+	Abscess formation	In direct contact with appendix	Appendicectomy, caecoplication
9	Circumscribed peritonitis due to appendicitis	49 M	++	Gangrene	Adherent to inflamed appendix and caecum	Appendicectomy
10	Circumscribed peritonitis due to appendicitis	39 M	At first inspection ++	Post-inflammatory scarring	Adherent to appendix	Appendicectomy 25 days after admission
11	Appendicitis; caecum mobile; sigmoid elongated and mobile	21 F	±	Catarrh	In direct contact with appendix	Appendicectomy
12	Appendicitis	25 M	+	Gangrene	In direct contact with appendix	"
13	"	50 M	++	Purulent	Adherent to appendix	"
14	Appendicitis; intestinal stenosis due to inflammatory adhesion	37 F	++	Perforated	Inflammatory hypertrophy and adherent to apex of appendix	Diarrhoea and severe tenesmus prior to operation; appendicectomy, and sigmoidectomy

TABLE II.—Severity of Pain in Rovsing-like Sign Related to Diagnosis

Diagnosis	Severity of Pain			Total
	Severe	Moderate	Mild	
Appendicitis	2	5	2	9
Circumscribed peritonitis due to appendicitis	2	0	0	2
Appendicular colic	0	0	1	1
Mobile caecum, and elongated and mobile sigmoid	0	1	1	2
Total	4	6	4	14

rubber balloon or a kymograph. On compressing the descending colon no intracaecal rise of pressure was observed even when the terminal ileum was clamped. Next a barium enema was given, and, after it had been confirmed by screening that the contrast medium extended to the middle of the ascending colon, antiperistaltic pressure was applied in the left iliac fossa: no change was observed in

between the inflamed viscus and the overlying anterior parietal peritoneum. To call the sign occurring by such a mechanism Rovsing's sign seems somewhat inappropriate. Davey's explanation of it is very similar to that of Lauenstein (1908, 1911), Hofmann (1908), and Hausmann (1911). Rovsing's sign in the true sense would be one in which abdominal pain in the right iliac fossa resulted from an antiperistaltic movement of colonic contents initiated by compression of the left iliac fossa. But this, as already shown, is impossible in the living subject with acute appendicitis.

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