

- colectomy in children. *Am. Surgeon* 23:577, 1957.
- HUGHES, E. S. R. *Surgery of the anus, Anal Canal and Rectum*. Edinburgh and London, E. & S. Livingstone, Ltd., 1957, p. 202.
- JONES, T. E. Abdominoperineal operation for cancer of the rectum. *J.A.M.A.* 95:1172, 1930.
- JONES, T. E. Technique of abdominoperineal resection for carcinoma of rectum. *Am. J. Surg.* 27:194, 1935.
- KOHLRAUSCH, O. *Zur Anatomie und Physiologie der Beckenorgane, nebst naturgetreuer Abbildung der Langsdurchschnitte des männlichen und weiblichen Beckens*. Leipzig, S. Hirzel, 1854.
- MAYO, H. W., JR., and MCKEE, E. E. Carcinoid of rectum. *A.M.A. Arch. Surg.* 62: 506, 1951.
- McLANAHAN, S., GROVE, G. P., and KIFFER, R. F., JR. Conservative surgical management for certain rectal adenomas showing malignant change. *J.A.M.A.* 141:822; discussion 825-826, 1949.
- MILES, W. E. A method of performing abdomino-perineal excision for carcinoma of the rectum and of the terminal portion of the pelvic colon. *Lancet* 2:1812, 1908.
- MRAZEK, R. G., JR., GODWIN, M. C., and MOHARDT, J. Carcinoid tumors; clinical and pathologic study of 27 cases. *Surg. Gynec. & Obst.* 96:661, 1953.
- PACK, G. T., GERBER, D. M., and SCHARNAGEL, I. M. End results in treatment of malignant melanoma: report of 1190 cases. *Ann. Surg.* 136:905, 1952.
- RANKIN, F. W. and GRAHAM, A. S. *Cancer of the Colon and Rectum: Its Diagnosis and Treatment*, 2d ed. Springfield, Ill., Charles C Thomas, 1950.
- SAUER, I., and BACON, H. E. Influence of lateral spread of cancer of rectum on radicality of operation and prognosis. *Am. J. Surg.* 81:111, 1951.
- SAUER, I., and BACON, H. E. New approach for excision of carcinoma of lower portion of rectum and anal canal. *Surg. Gynec. & Obst.* 95:229, 1952.
- SNOW, P. J. D., LENNARD-JONES, J. E., CURZON, G., and STACY, R. S. Humoral effects of metastasizing carcinoid tumours. *Lancet* 2:1004, 1955.
- TURNBULL, R. B., JR. Carcinoma in polyps of the colon and rectum; a study of 86 treated patients. *Dis. Colon & Rectum*. 1:44, 1958.
- TURNBULL, R. B., JR. "The Coagulation-Radon Seed Implantation for Certain Cancers of the Rectum," Chap. 24, pp. 528-536, in *Diseases of the Colon and Anorectum*, ed. by R. TURELL. Philadelphia, W. B. Saunders Company, 1959, 608 pp.
- WAUGH, J. M., MILLER, E. M., and KURZWEG, F. T. Abdomino-perineal resection with sphincter preservation for carcinoma of midrectum. *A.M.A. Arch Surg.* 68:469, 1954.
- WAUGH, J. M., Personal communication, 1955.

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