Charles Pannett was born in the Shepherd's Bush area of London on September 21, 1884, the only surviving son of an ironmonger. Coming from a poor family, he was discouraged from attempting a career in medicine. Having gained entrance to St. Mary's Hospital, he obtained a scholarship. Alexander Fleming was also a scholarship recipient in his class. The two were rivals, sharing between them all of the medical school prizes. He obtained his M.D. in 1907 with a gold medal, and his F.R.C.S. in 1910. Shortly thereafter, he contracted tuberculosis and was forced to spend most of the ensuing four years in a sanatorium, performing light work as a house surgeon. In 1914, he became registrar at St. Mary's.

During World War I, he served as a surgeon on a hospital ship and also in the Middle East. After the War, he returned to St. Mary's, ultimately becoming a full-time, salaried professor.

Pannett was best known for his skill in performing a partial gastrectomy. In 1929, he reported 100 consecutive such operations without a death, a remarkable achievement for its time. He credited Finsterer of Vienna for his success; it was apparently from him that Pannett developed his technique. He was also one of the first British surgeons to perform a sphincter-saving operation, the subject for this Classics presentation—the abdominosacral resection. He seldom performed a colostomy. A master surgeon, his motto was, "Cut well, see well, and your patients will get well."

Professor Pannett retired as Chairman at St. Mary's in 1950, but he continued his own research at the Royal College of Surgeons. He remained active virtually until he died of a myocardial infarction, July 29, 1969, in his 85th year.


RESECTION OF THE RECTUM WITH RESTORATION OF CONTINUITY

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In all the older text-books of surgery Kraske's operation for resection of the rectum is described. It is essentially an excision by a sacral approach between the anus and the third piece of the sacrum itself. Originally it was devised so that after resection continuity of the bowel could be restored, but in practice it was frequently found that this was not effected. Either there was too much tension or the blood-supply of the upper segment of the bowel had been so damaged that no repair was possible. Gangrene, followed by an incurable sacral fistula, was the ultimate result. Hence in many cases the operation was completed, not by restoration of continuity, but by the deliberate formation of a sacral anus. In this region the inconvenience of an artificial anus is so great that it is not surprising to find most surgeons abandoning it for the usual iliac colostomy.

The immense advantage of an abdominal anus, combined with a quite erroneous conception of the mode of spread of carcinoma of the rectum, have led to the adoption of two operations for this disease in this country to the exclusion of all others—namely, the perineal and the
justification, have insisted upon the necessity in every case of sacrificing the whole of the bowel below a carcinomatous growth, together with all the fat and pararectal tissue in the ischiorectal fossae. The objectionable qualities of any artificial anus have been allowed conveniently to sink into the background. Some accounts would make us believe that a man with an iliac colostomy, when properly performed of course, suffers from little, if any, disability or inconvenience; we are almost persuaded that it is an advantage. Such adulatory accounts, however, always come from the surgeon. I have yet to meet a patient who contemplates with complete satisfaction and equanimity his possession of an artificial outlet for his faeces. The waste of time each morning in emptying his colon that he may pass the remainder of the day in comparatively comfort, the ever-present possibility of involuntary escape of solid or gaseous contents, the constant attention to his diet are not trivial matters. The revolting nature of these daily attentions is extraordinarily disturbing to a man of culture and refinement, and is apt to induce a most unpleasant state of mind, a condition which may best be described as a stercoral outlook on life. No normal man could contemplate a colostomy with anything but dismay.

Twelve years ago an educated woman with carcinoma recti came to see me. She knew the nature of the disease and the operative implications had been explained to her. She refused to consider for one moment a colostomy and begged me to avoid one or do nothing. This was the first case in which I performed a sacral excision of the rectum with restoration of continuity. It was a complete success so far as local removal went, but the patient succumbed some two years later to a metastasis in the liver. Since then I have carried out the operation with what must be considered, when results are taken into account, a quite incredible infrequency. It is the realisation of this delinquency which leads me to urge a more extensive trial of the method, particularly as recent pathological investigations afford a complete justification for disregarding the alleged necessity for extensive removal of the perirectal tissues.

**Pathological Considerations**

These pathological investigations are due particularly to Westhues and Schmieden in Germany, and to Cuthbert Dukes in this country. The essential facts are few and simple. Lymphatic flow from the rectum is preponderatingly—one may with some justification say, exclusively—in an upward direction along the course of the superior haemorrhoidal vein, up into the glands of the mesosigmoid, and thence into the aortic glands. No lymph travels laterally to the walls of the pelvis and none passes downwards and out to the inguinal glands unless the growth encroaches actually upon the anal canal. Only the glands in the mesosigmoid need concern the operator, but it is essential that the tissue behind the rectum in the hollow of the sacrum be effectively removed.

A second pathological fact of very great importance is the recognition of the small part that local permeation in the actual wall of the rectum takes. The bowel is quite free from carcinoma cells 1.0—1.5 cm. below the macroscopic margin of the growth; a somewhat wider margin may be required above. Sometimes in more advanced cases a blunt-shaped process grows right through the rectal wall more frequently posteriorly or slightly to one side. This mass is in continuity with the main growth and usually inclines orally along the bowel. Never in specimens obtained at operation does it extend through the visceral layer of pelvic fascia which lies behind the rectum. The corresponding process in front either pushes the peritoneum of the fold of Douglas upwards or grows through it forming the umbilicated appearance in this region familiar to all surgeons. The part played by the pelvic fascia in limiting the spread of carcinoma is very important, and its bearing upon operative procedure will be referred to again. It may be noted here that whilst it is an almost certain barrier behind it is not quite so impenetrable where it forms the recto-vesical layer in the male. Occasionally in an operable stage, growth will have invaded the prostate. It is very rare to find it encroaching actually upon vaginal tissue. Carcinoma of the anal canal is not so confined by facial layers; it spreads easily into the perirectal tissues. It is much more difficult to eradicate locally.

**Anatomical and Operative Considerations**

It is clear that to make an effective removal of a growth above the anal canal it is not necessary to take away much of the rectum above and below the apparent margin of the carcinoma. It is quite sufficient to cut the bowel across 1.5 cm. below the growth with the assurance that no cancer cells will remain behind. Above, it is advisable to take away 1.0 cm. more. The tissue in the neighbourhood of the middle haemorrhoidal vessels is innocuous and should be left, but free removal of the tissues behind the rectum extending up the whole extent of the mesosigmoid is absolutely essential for success. The visceral layer of pelvic fascia, being a natural barrier to the spread of the growth, it is wise to keep outside this layer as far as is possible. It arises, it will be remembered, from the white line at the side of the pelvis and passes medially upon the upper surface of the levator ani and coccygeus towards the rectum, seminal vesicles, prostate, and bladder. Reaching