Local Excision of Large Rectal Villous Adenomas

Long-Term Results

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PURPOSE: Transanal excision of rectal villous adenomas is a widely used surgical technique, because it is a one-step procedure, requiring no sophisticated instrumentation, and allowing complete histologic analysis of the excised tumor. Therefore, it ranks alongside radical surgery and palliative destructive procedures, but its results are highly variable in the published series. This discrepancy may be explained by the variable completeness of tumor excision because of potential dissection difficulties. Because intraoperative exposure may be a major limiting factor, one of us (JF) has developed a tractable cutaneomucous flap procedure to lower the rectal tumor to the anal verge, where control of the dissection line is easier. This retrospective review of consecutive patients operated on during ten-year period reports long-term results after transanal excision for large rectal villous adenomas with the tractable flap technique.

PATIENTS: From 1978 to 1988, 207 consecutive patients (100 males), mean age 68 (range, 24–90) years, were operated on for an apparently benign villous rectal adenoma. Twenty-one patients (10 percent) were referred after failure of previous treatments: 11 endoscopic, 8 surgical, 1 laser, 1 radiotherapy. Mean distance of lower tumor edge from anal margin was 5.6 (range, 0–13) cm and was <10 cm in 82 percent.

RESULTS: Three patients (1.5 percent), including one with a Tis carcinoma, underwent a secondary treatment for immediate gross failure of resection: one further local excision and two palliative laser destructions. Immediate postoperative course was uneventful for 96 percent; there was one death from perineal gangrenous infection, four cases of hemorrhage, and three urinary retentions. Subsequently one case of transient fecal incontinence and 11 medically managed stenoses were noted. Mean size of resected tumor was 5.4 (range, 1–17) cm. Deep excision margins concerned the rectal muscular layers in 199 patients (96 percent) and perirectal fat in 8 (4 percent). Specimen margins were negative for cancer in 175 (85 percent) and positive or unknown in 32 cases. Histologic evaluation demonstrated in situ cancer in 28 (14 percent) and invasive carcinoma in 9 (4 percent). In three patients (1 percent), two abdominoperineal resections were immediately performed (one T2 with a mucinous contingent, one T3) and one adjuvant radiotherapy (one undifferentiated T2). Four patients (2 percent) did not return for postoperative evaluation. For the remaining 198 patients, mean follow-up was 74 ± 34 (median, 75; range, 1–168) months. Forty-four died from unrelated causes. Recurrence occurred in seven (3.6 percent) and was malignant in two, who subsequently died. Specific recurrence-free probability was 99.5 percent at one year, 96 percent at five years, and 95 percent at ten years. A lesion size ≥6 cm (10 rs. 1 percent for smaller tumors) and the presence of an invasive carcinoma (20 rs. 3 percent without invasive carcinoma) were significantly associated with an increased probability of recurrence at five years.

CONCLUSION: Providing that adequate intraoperative exposure is obtained and advanced malignant tumors receive immediate secondary treatment, transanal resection of clinically benign, large rectal villous adenomas is safe and effective. It is an alternative to rectal resection, which exposes the patient to potentially adverse effects, and also to destructive procedures, which preclude any histologic evaluation of the tumor.

[Key words: Rectal tumor; Villous adenoma; Local excision; Surgical treatment]


Approximately two-thirds of large bowel villous adenomas (VA) are located in the rectosigmoid segment of the colon,1–3 where they represent a therapeutic challenge for two reasons. First, recurrence of rectal adenomas is frequent after treatment2 and eventually malignant. Second, colonic VA harbor a significant incidence of malignancy with foci of invasive cancer that are present already in 10 to 20 percent of patients at time of diagnosis,1–4 especially in the rectal area.2 Therefore, the treatment objectives are low morbidity justified by the a priori benign nature of most of these tumors, low recurrence rate, and strict respect for oncologic practice because of the potential for malignant evolution.

Although local techniques are used for treating large rectal VA, they are often considered unreliable, because the recurrence rate varies from 7 to 50 percent in the reported series.3–11 This probably depends on the completeness of excision, because the best results are obtained when the technique provides adequate visual control of the dissection line. This explains why the peranal microsurgery developed by
Buess is associated with a low recurrence rate.\textsuperscript{5-7} However, that technique requires specific training, the use of expensive instrumentation, and is mostly useful for highly located tumors. In addition, the transsacral or transsphincteric routes, which offer good tumoral exposure, are effective, but they entail a high risk for fistula.\textsuperscript{8,9} The Parks transanal excision is a simple, widely used technique with low morbidity, but it has obtained variable efficacy (9–39 percent).\textsuperscript{3,4,10-14} A convenient adaptation of this simple technique should allow adequate preoperative exposure and lead to a low failure rate.

Local excision is not indicated for advanced carcinomas with an elevated risk of lymphatic spread. Unfortunately preoperative staging is not reliable, because endosonography and random biopsies lack sensitivity in the particular setting of VA.\textsuperscript{1,2,15} Magnetic resonance imaging has not yet been extensively evaluated for these tumors, and perhaps none of these staging techniques is superior to expert digital examination.\textsuperscript{2,12} In fact, whole tumor histologic evaluation after an \textit{en bloc} resection is the best way to reveal a malignant component, to evaluate the risk of distant spread, and indicate the need for secondary treatment. This represents the macrobiopsy concept that was clearly described by Morson and colleagues.\textsuperscript{16} Therefore, destruction or fragmented resection are not optimal procedures.

One of us (JF) has developed a modified transanal resection technique, providing good vision of the operative field. We use it to treat patients with even high or large apparently benign rectal VA and reserve secondary radical surgery for high-risk invasive carcinomas. Our purpose was to demonstrate that local excision without expensive instrumentation can reliably result in successful outcomes. We report our ten-year, single-center experience of transanal local excision of rectal villous adenomas with the tractable mucosal flap technique.\textsuperscript{17}

\section*{PATIENTS AND METHODS}

We reviewed the files of consecutive patients operated on for an apparently benign VA during the 1978 to 1988 period. Because long-term evaluation of this specific technique was already planned, all data were prospectively recorded in a specific registry from the first case. The inclusion period was chosen because it was preceded by ten years of cumulative experience, and it allowed sufficiently long-term follow-up. In our unit, transanal excision was first-inten-

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\caption{Transanal excision in which rectal tumor is progressively lowered to the anal margin by gentle traction of a cutaneous flap.}
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