

## Rectal Cancer

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### **Low Lying Rectal Cancer With Anal Canal Involvement: Abdominoperineal or Low Anterior Resection After Neoadjuvant Chemoradiotherapy**

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**Background:** Rectal cancer with anal involvement is typically treated with abdominoperineal resection (APR). However, patients treated with neoadjuvant chemoradiotherapy who have good clinical response and regression of tumor from the anus present a management dilemma. This is a report of patients treated with low anterior resection (LAR) or APR.

**Methods:** Patients with T2-3N0-2M0 rectal tumors and anal canal involvement were eligible. Anal canal involvement was determined by sigmoidoscopy/colonoscopy or endoscopic ultrasound. Patients were treated with preoperative chemoradiotherapy, with radiotherapy administered in the prone position using the 3-field technique to 45-50.4 Gy, at 1.8 Gy/fraction, given concurrently with 5-fluorouracil (5-FU). Patients underwent APR/LAR 4 to 6 weeks after chemoradiotherapy. LAR was performed in patients with good sphincter function at presentation, sufficient tumor regression away from the anal canal to allow LAR, in patients considered compliant, and with close follow-up. All patients received 5-FU-based adjuvant treatment after resection. Kaplan-Meier methods were used to calculate survival rates. The Memorial Sloan Kettering Cancer Center Sphincter Function Scale was used to determine sphincter function in the patients undergoing LAR.

**Results:** A total of 32 patients with rectal cancer with anal canal involvement were treated with neoadjuvant chemoradiotherapy. Five-year local control rates were 85% and 89%, and 5-year overall survival rates were 76% and 86% for patients treated with APR and LAR, respectively. Pathologic complete response was seen in 24% of APR and 27% of LAR patients. In the LAR group, 5-year

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colostomy-free survival was 89%; sphincter function was good to excellent in 64% and fair in 36% of patients. All of the patients with initial anal sphincter involvement had fair sphincter function following treatment. None of the patients experienced incontinence.

**Conclusion:** Rectal cancer patients with anal canal involvement who have good clinical response after neoadjuvant chemoradiotherapy are typically treated with APR. However, results of this study suggest that LAR may be a feasible alternative. Patients amenable to this approach are those with excellent clinical response to neoadjuvant treatment with sufficient tumor regression away from the anal canal. Close follow-up of these patients is necessary, and APR may be reserved for salvage therapy when needed.