

## ADVANCES TREATING RECTAL CANCER

Recently I saw a patient who came to me urgently several months ago. At that time she had been told elsewhere that she needed "radical surgery for a low-lying rectal carcinoma and colostomy would be necessary." The patient was adamant against colostomy and sought every possible avenue to avoid this surgery.

We found her with an isolated low-lying rectal carcinoma. This means its location was adjacent to the anus. She was offered combination chemotherapy and radiation together followed by surgery. Last week when I saw her she had fully recovered from surgery. She was of normal weight, had no colostomy and best news of all the cancer had totally disappeared after just radiation and chemotherapy. So when the surgeon removed the previously involved portion of the rectum there was no residual cancer!

This approach offers great appeal for our patients with rectal cancer. Obviously, together with patients we hope that we can avoid bigger surgeries such as colostomies and removal of the anus. These are quality of life issues. While this approach is not so successful in every patient, it gives the chance of organ preservation.

What exactly is the current data? A recent publication by Wagman et al published in the International Journal of Radiation, Oncology, Biology and Physics evaluated 36 patients who would most likely require, what would be called an abdominal perineal resection. This means a total removal of the rectum and anus with a colostomy formed to allow exit of fecal material.

Instead, however, patients received pre-operative radiation and underwent surgery. This article will discuss those results.

Because of patient refusal of abdominal perineal resection as well as physicians wanting to minimize a more extensive surgical treatment the idea of pre-operative radiation is a reasonable one. The rationale is to avoid the big operation and undergo a smaller operation maintaining the anus and avoiding colostomy.

Reported were 36 patients with invasive carcinoma of the distal or low-lying rectum. This is territory where colostomies were often thought to be required. Patients were evaluated with medical histories, physical exam, colonoscopy or proctoscopy, blood tests, chest x-ray and CT scans.

All cancers were felt to be located between 3 and 7cm (or about one to three inches) from the anal verge. The patients' age ranged from 33 to 76 years with a median of 55. Follow-up time from treatment was 4 to 121 months with a median of 56 months.

Radiation was carried out with megavoltage (high-energy producing radiation) equipment in multiple fields. Chemotherapy was given after radiation based upon presence of cancer and lymph nodes. After radiation, surgery followed within four to five weeks. At the time of surgery six patients had metastases or cancer spread to the liver. Three had single metastases and three multiple metastases. Five patients reportedly underwent removal of the liver metastases and primary rectal tumor.

Five of the 35 patients - or 14% - had a complete response with no evidence of cancer present, just like the patient we discussed at the beginning of this article. Twenty-seven of 35 underwent low anterior resection thus saving the anus in 77%. Eight patients required abdominal perineal resection.

Incidence of failure included local (that is, in the original area) in 21%, abdominal cavity in 22% and distal meaning beyond the abdomen in 9%. Five-year disease-free survival was 60% and overall survival was 64%. Disease-free survival is being alive with no cancer recurrence.

As the authors noted "There is increasing interest in the use of radiation therapy with the goal of sphincter preservation and the treatment of resectable rectal cancer. The goal of pre-operative therapy (radiation therapy with or without chemotherapy) is to decrease the volume of the primary tumor."

Furthermore, the medical researchers suggested "For patients with clinically resectable disease, the pre-operative approach should be used in situations where, on presentation, sphincter preserving surgery is not technically possible. The decision of whether to use pre-operative radiation therapy or pre-operative combined modality therapy is based upon the results of the transrectal ultrasound. For patients who are felt to have lymph node positive cancer then recommendations are to use chemotherapy up front."

Concluding it was noted that "Our data reveals reasonable local control, survival, sphincter preservation, and functional results in selected patients. This conservative approach may be an alternative to an abdominal perineal resection in selected patients. Additional experience is needed to assess the long term efficacy and functional results of this approach and if it ultimately has similar local control and survival rates as abdominal perineal resection."

Thus, just like in breast cancer where for most women removal of the breast (mastectomy) is no longer needed as results show equal benefit to lumpectomy (removal of the lump of cancer) and radiation. Similarly for rectal cancers many patients may indeed save their anal sphincter by having pre-operative radiation plus or minus chemotherapy to shrink the cancer and make a less extensive surgery feasible.

We also have unique programs for those with inoperable or recurrent rectal cancers. These cancers unfortunately frequently recur in the pelvis or liver. Both sites – as well as others – are usually technically feasible to attack using fractionated body stereotactic radiosurgery.

Rectal cancers are also treated with fractionated stereotactic radiosurgery. Usually we use this method as a boost to treat the cancer. It can also be used to treat metastases. Metastases are the spread of the cancer either locally, regionally or distantly. Stereotactic body radiosurgery allows very precise delivery of the radiation and also is often given in higher doses to allow the expansion of the biologic slope of the response curve.

Our local control rate in the treated field for rectal cancer is about 80-90%. This is in marked distinction to the usual treatment options. We have established a hot line at 212-CHOICES and e-mail address: [gil.lederman@rsny.org](mailto:gil.lederman@rsny.org). There are also monthly seminars on brain, body and prostate cancer treatment. We invite your participation. We also will ask that you send in copies of films, reports, pathology for review by our panel of experts.