A SURGICAL APPROACH TO CERVICAL CARCINOMA

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CERVICAL CARCINOMA may be treated by surgery or by irradiation therapy. The two forms of treatment should be thought of as being complementary rather than competitive. In considering surgical therapy, a middle-of-the-road approach seems most reasonable in the light of present knowledge.

Indications for Surgery

The treatment of choice in the majority of cases of cervical carcinoma is irradiation therapy since 70 to 75 per cent of women with this disease have evidence of its extension outside the cervix when they are first examined. It follows then that surgery is most commonly indicated in those cases in which there is a failure of response to irradiation therapy. Surgery may also be employed for the following purposes: (1) evaluation of response of a lesion to previous irradiation therapy; (2) palliation; (3) correction of conditions arising out of the use of x-ray or radium therapy; (4) complete pretreatment evaluation when undetermined extracervical pelvic pathology coexists with a Stage I or Stage II cervical carcinoma; and (5) treatment of carefully selected cases of Stage I and Stage II cervical carcinomas; these operations are being performed in some centers by highly competent surgeons.

It has been suggested that surgery be routinely advised upon a patient's refusal to accept irradiation, but we believe that a patient cannot reasonably make a choice between therapeutic procedures which in most instances must be decided by the surgeon.

Contraindications to Operation

Contraindications to surgery are difficult to outline, for often surgical exploration itself is essential to complete evaluation of a given condition. A neoplasm that upon bimanual examination appears to be hopelessly advanced may upon surgical exploration prove to be operable. Age of the patient is of less importance in determining operative risk than is physiologic condition. Edema of the legs of pelvic origin, and leg and deep pelvic pain nearly always indicate a hopeless condition. Obesity in a patient who has a deep, narrow pelvis may make a thorough operation impossible. Certainly extrapelvic metastases render local therapy useless.

Failure of Irradiation

It is generally possible to determine the response of the local lesion to irradiation treatment not only by the examination of smears and of biopsy specimens obtained during and after therapy, but by clinical appraisal. The presence or absence of tumor cells in cervical and vaginal smears is not important. The important changes to look for in nonmalignant cells are vacuolization of cytoplasm, increase in cell size, and nuclear atypism which, as pointed out by Graham,[1] indicate susceptibility of the carcinoma to irradiation therapy. If irradiation is given and, at the conclusion of treatment, such changes are not found or actively growing cancer is demonstrated clinically or by biopsy, surgical intervention is indicated.

The advancing growth of cancer in extracervical locations is more difficult to evaluate. Following extensive irradiation, fibrosis of irradiation areas often occurs, making it impossible to differentiate between changes that result from carcinomatous extension and those from irradiation. By close follow-up examination it is generally possible to detect progressive changes. Everett, Brack and Farber[2] and Aldridge and Mason[3] have pointed out that progressive ureteral obstruction is often due to advancing carcinoma; consequently, before any irradiation therapy is given, urographic studies should be carried out, and following the completion of irradiation they should be repeated at frequent intervals.

Second-Look Operations

General surgeons for the past several years have been performing so-called "second-look" operations six months to a year after an initial surgical procedure. The status of the abdomen can thus be evaluated with surety, and occasionally this provides another opportunity for palliative therapy, or, very rarely, curative therapy. Today, simple exploration involves an almost negligible risk; the risk being largely associated with anesthesia.

In cases of gynecologic carcinomas in which reasonable doubt exists in regard to the response to initial x-ray and radium treatment, surgical exploration permits the determination of the lateral and upward extent of the tumor and may make it possible to carry out surgical therapy before the lesion becomes so far advanced as to make such therapy impossible. Intra-abdominal excisional biopsies are invaluable in conjunction with such a procedure, but biopsy specimens must be reliably diagnosed by frozen section technics. Explorations of this type should be carried out only if the surgeon, the patient, and the operating room are prepared for a possible, immediate, extensive, definitive operation.

One of the effects of x-ray and radium therapy which is often underemphasized is the entrapment of carcinomatous cells by fibrous connective tissue. Thus, undue manipulation should be avoided in any secondary operation. If resectable carcinoma is found, it would seem wise to remove the uterus and

adnexal areas in addition to carrying out a lymphadenectomy in order to avoid possible reactivation of dormant, controlled carcinoma in these areas.

Radical Approach to Extensive Recurrent Disease

The possible surgical procedures for treatment of recurrent or persistent carcinoma range from radical hysterectomy to total pelvic exenteration and are so varied that few surgeons have sufficient experience to handle them all with equal facility. This creates a problem that we have met by using the combined talents and skills of all specialists concerned. Thus, the choice of treatment and the actual operations may represent the cooperative efforts of several specialists. If a procedure involves the urinary and gastrointestinal tracts as well as the reproductive organs, a urologist, a general surgeon, and a gynecologist collaborate, each performing the particular part of the operation which is within his special field. The patient's well-being is not sacrificed by any limitation of surgical ability, and each part of the operation is performed with maximum dispatch by a surgeon not fatigued by prolonged operating. The patient's postoperative course is followed by all doctors concerned, and their efforts and interests are coordinated by one resident. We have done 12 combined procedures involving partial or complete pelvic exenteration with transplantation of the ureters without an operative or hospital mortality. At present it is too early to evaluate these operations accurately, but rapidly increasing evidence indicates that this type of surgery may constitute a very definite contribution to the treatment of otherwise hopeless lesions.

Surgery for Irradiation Sequellae and Palliation

Surgery may be employed in dealing with the sequellae of irradiation, or may be used for palliation. Urinary tract conditions in which surgery is employed include intractable irradiation lesions of the bladder with severe hematuria, vesicovaginal or ureterovaginal fistulas and ureteral obstruction. Closure of fistulas and diversionary operations even in hopeless cases where prognoses are limited will simplify nursing care and considerably increase the comfort of the patients. In the case of hopelessly advanced neoplasm, it would seem unwise to attempt to relieve ureteral obstruction, but when obstruction exists with controlled or controllable neoplasm, operative intervention may be lifesaving, since some patients die of bilateral ureteral obstruction with no extrapelvic spread of their disease.

Fistulous communications may exist between the gastrointestinal tract and the vagina, and may be rectovaginal or enterovaginal communications—secondary to neoplasm or irradiation. A permanent colostomy is generally indicated in rectal strictures. Secondary pull-through operations (resection of the area of stricture with re-anastomosis of the sigmoid to the rectum or anus) can be considered, but scarring usually is so extensive that this is impracticable. With such a procedure, cancer cells entrapped by fibrous connective tissue may

also be set free. However, when colostomy is performed for the postirradiation type of rectovaginal fistula, a secondary closure of the fistula may be possible later. This operation should not be considered until sufficient time has elapsed following primary therapy to indicate that recurrence of the carcinoma is unlikely.

An enterovaginal fistula may be treated by a so-called short-circuiting operation. The segment of bowel involved in the fistula is excluded from the main stream of intestinal contents but is allowed to remain in situ. We have recently performed such an operation on each of two patients in whom fistulas were due to carcinoma, not to irradiation, and though their prognoses were limited and hopeless, we believe that the procedure was fully justified in that it simplified nursing care and made the patients much more comfortable.

Operations for the relief of intractable pain include cordotomy and lobotomy; a life expectancy of at least four to six months is desirable before carrying out these procedures. These operations often complicate nursing care, as temporary urinary incontinence occurs regularly in all cases of bilateral cordotomy and is persistent in about 10 per cent. In general, narcotics have been used liberally and further palliative x-ray therapy has been attempted in lieu of these operations. Procaine injections into the frontal lobes have been introduced too recently to evaluate.

On several occasions in an attempt to relieve deep pelvic pain, we have placed low-intensity radium needles in metastatic carcinoma at the time of abdominal exploration. There is considerable sloughing of necrotic tissue following this procedure, and although the patient may obtain relief from pain, intestinal fistulas may result. This complication has led to the abandonment of this form of therapy.

Summary

Irradiation therapy and surgery are complementary forms of treatment in cases of cervical carcinoma. Surgery may be employed either for curative or for palliative purposes. For best results in individual cases, the full cooperation of the various surgical specialists and the radiologists is necessary. Greatest progress can be made only by centralizing the cases, by cooperative group attack, and by individualizing therapy.

References

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