PELVIC EXENTERATION - SHOULD IT BE DONE ?

RANADE R. G. ● SATWEKAR R. M.

SUMMARY

From March 1989 to February 1994, 7 patients had pelvic exenteration and ileal / sigmoid conduit. Perioperative complications were minimal and operative mortality was nil. Four of these patients (57%) have been regular in their follow up and have been free from disease. The 'follow up' period varies from 14 to 55 months. All the patients have been comfortable with their stomas and living useful lives.

INTRODUCTION

The ultra radical surgical approach in the form of pelvic exenteration was first introduced by Brunschwig in 1948. Even though it offers the only chance of cure to a patient of cervical carcinoma who develops recurrence after full therapeutic dose of radiation, or who has radioresistant disease, this operation has never attained wide popularity other than within the United States. Though the reported salvage rate with exenteration procedures for recurrent genital cancer varies from 30% to 40% (Brunschwig 1948; Ingersoll et al 1966; Ketcham et al 1970; Symmonds et al 1975; Wang et al 1987), it is quite significant in view of the fact, that, no other equally curative form of thereby exists for this distressing condition.

Herewith we report our experience with pelvic exenteration procedures which we feel are quite encouraging, suggesting therapy its wider application at other centres.

Dept. of Obst. & Gyn. Urology & Surgery, Wanless Hospital & Vail Memorial Cancer Institute, Miraj Medical Centre, Meraj.

Accepted for Publication on 31.05.1994.

MATERIALS AND METHODS

From April 1989 to March 1994, 14 patients of various types of genital malignancies were explored for exenteration surgery at Vail Memorial Cancer

Institute - Wanless Hospital Miraj. On laparotomy it was found that out of 14, only 7 were suitable for surgery and in them the exenteration was accomplished. Before surgery a full work up for cardio-respiratory status, kidney function and coagulation profile was undertaken. The procedure was well explained to the patient and informed consent for the stoma was obtained. The stoma sites were marked after examining the patient in standing, sitting and lying down position preoperatively.

The abdomen was opened by a vertical midline incision and systematic palpation of aortic and pelvic nodes, liver, pelvic side walls and peritoneal surfaces was undertaken. All palpable aortic nodes or suspicious extra-pelvic or peritoneal metastasis were biopsied and examined by frozen section technique. If frozen section was positive, the procedure was abandoned. The operative procedure was also discontinued if after developing the paravesical and pararectal spaces the disease was found to infiltrate the pelvic floor.

Once it was decided to proceed, the procedure was accomplished by the standard technique as described by Symmonds and Webb (1981) and Mattingly and Thompson (1985); starting with lower paraaortic and pelvic lymphadenectomy and then proceeding to enblock extirpation of exenteration specimen.

Anterior exenteration involved resection of urinary bladder and urethra along with uterus, vagina and the surrounding tissues; while in posterior exenteration, the rectum was resected with the uterus and vagina but the bladder and urethra were left behind. Total exenteration involved resection of bladder and rectum both with uterus and vagina and construction of an ileal or sigmoid conduit and terminal colostomy.

The urinary conduit was performed by the urologist, but the rest of the procedure was accomplished by a gynecologic surgeon assisted by residents. Blood loss was measured by weighing the wet sponges and adding to it the blood accumulated in the suction bottle.

Raw areas in the pelvis were covered by mobilized omentum with or without rectosigmoid. The pelvis was drained by two retroperitoneal suction drains which were brought out through the iliac fossae, and one transperitoneal drain placed near the most dependent part of the ileal or sigmoid conduit. The abdomen was closed in single layer by continuous suture of thick vicryl. Postoperatively all the patients were managed in the intensive care unit with monitoring of central venous pressure and hourly urine output and careful replacement of all the losses. Early ambulation was always encouraged. All the patients received prophylactic antibiotics, a combination of cephalosporin and gentamycin for three doses. The first dose was always administered 2 hr. prior to surgery. Antibiotics were continued if blood counts were raised at 24 hr. after surgery or if the patient was febrile. All the patients were encouraged and trained to fit stoma bags, so that, at discharge, they were able to manage stomas on their own.

RESULTS

Of the total 14 patients explored, exenteration was accomplished in 7 (50%). Seven were unsuitable for the operation, because of aortic node metastasis in 6, and extension to pelvic side wall and infiltration of the pelvic floor in one. Of the 7, who had undergone the operation, 6 had anterior and one had total exenteration. Urinary conduit was ileal type in 5, while one had sigmoid conduit. Indication for exenteration was recurrent cervical cancer in 5 (71%) cases. Of the remaining 2, one had vulvar carcinoma with involvement of the whole length of the urethra and extension to the bladder and in the other patient it was vaginal cancer infiltrating vesico-urethral junction. Both of them had anterior exenteration as the primary treatment procedure.

The ages of these patients varied from 38 to 65 years. One patient had maturity onset diabetes mellitus but none of them had ischaemic heart disease. All the tumours were of the squamous cell type. Blood loss varied from 800 to 2000 ml, Five out of 7 (71%) lost between 800 to 1500 ml. Operating time varied from 7 to 8hr., in 4 patients (57%), it was 7 hr. and in remaining 3 (43%) it was 8 hr. Pelvic lymph nodes (sacral and obturator, one each) were involved in one patient who had exenteration for vulvar carcinoma, but all the rest of the 6 did not have lymph node involvement. Para-aortic lymph nodes were not involved in any of these 7 patients.

Analysis of the complications showed that urinary tract infection was the commonest, and seen in 4 (57%) out of the 7 cases. Subacute intestinal obstruction occurred in two patients (33%), in the immediate postoperative period; but both of them responded to conservative management. One patient developed depressive psychosis in immediate postoperative period but was relieved by antipsychotics and psychotherapy. Pneumonitis occurred in one patient. Prolonged urinary leak (for 3 weeks) from ureterointestinal anastomosis occurred in one patient, which eventually stopped. The patient who was diabetic and had anterior exenteration and ileal conduit for persistence of the cervical cancer after radiation, developed discharge from the lower end of the wound in the 4th week after surgery and required readmission. She had developed necrosis of the omental flap with marked anaerobic infection. Subsequently she developed a rectosigmoid fistula. Faecal stream was diverted with proximal transverse colostomy and then the wound became dry with antibiotics, wound dressings and strict control of blood sugar. Subsequently the same patient developed thigh abscess first on one side and then on the other. From all these complications she recovered completely and has been living a happy life. None of the patients died intra or postoperatively.

Follow-up records reviewed revealed that two patients had been lost to follow-up after first two years and they did not respond to any correspondence. One patient who had total exenteration died at home at 21 months after surgery. The remaining four (57%) are alive and free from disease. They have been followed

up, so far, for 14, 24, 36 and 55 months. All the four of them have been very happy in their families, are comfortably managing their stomas and are freely mixing in society.

DISCUSSION

Exenterative pelvic surgery has been a precious gift from Brunschwig-the originator to the ailing patient of recurrent cervical cancer and also to the gynecologic oncologist who is entrusted for the treatment of this illness. In early days, the procedure used to be associated with high operative morbidity and mortality. But today because of better patient selection, improvement in the technique of management of pelvic floor, use of separate urinary conduit rather than implantation of the ureter in the fecal stream and availability of better antibiotics and blood transfusion facilities, operative mortality has been brought down to 2 to 3% (Symmonds & Webb 1981, Mattingly & Thompson 1985). Though majority of the authors (Brunschwig 1948; Ingersoll et. al. 1966; Ketcham et. al. 1970; Symmonds et. al. 1975; Wang et. al. 1987) report 30 to 40% as salvage rate, still it is highly significant because of the fact that exenteration is the only procedure which offers a chance of cure to a patient who has radioresistant or recurrent pelvic cancer.

Our experience with exenteration is based upon a small number of cases. The perioperative complications were less frequent and no intra or postoperative death. At follow up varying from 14 to 55 months, 57% are free from disease and living happy and useful life. Hence, we feel, that our experience supports the observations made by other authors (Brunschwig 1948; Ingersoll et. al. 1966; Ketcham et. al. 1970; Symmonds et. al. 1975; Wang et. al. 1987) and exenteration if performed selectively and meticulously can offer a chance of cure for centrally recurrent pelvic malignancy.

Even though Stanhope and Symmonds (1985) have pointed out the benefits of palliative exenteration, whether this type of ultra radical surgery should be used for palliation is still a controversy. Based upon our limited experience, we feel, exenteration should be offered to a select group of patients. Considering the Indian situation where the majority of these patients belong to low socio-economic strata, till the time additional studies establish unequivocal benefits of palliative exenteration, we feel, it should always be undertaken with curative intention.

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