Complications in the surgical treatment of carcinoma of the endometrium

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Summary: The Authors report their experience in medical and surgical complications after surgical treatment of endometrial carcinoma, from January 1976 to December 1992, 301 cases of adenocarcinoma were operated by abdominal or vaginal route. From 1980 onwards abdominal route was the most frequent (radical hysterectomy with bilateral adnexectomy Rutledge type II-III with pelvic and/or aortic lymphadenectomy). No lesion occurred either during surgery or later, in the urinary or intestinal apparatus or to the great abdomino-pelvic vessels. The only medical complication observed was one episode of cerebral ictus three days after operation. Two cases of adynamic ileus and five of ventral hernia occurred.

Key words: Complications; Surgery; Endometrial carcinoma.

The principal therapy for carcinoma of the endometrium is still surgery, albeit other types of treatment can be used in association with surgery ([1]). The main problem in treating this pathology is that most patients are elderly and often also suffering from disease such as diabetes, hypertension and cardiovascular complications. Obesity moreover, can also constitute a limiting factor in the surgical approach to the disease.

Surgical access can be either by the vaginal or the abdominal route. Both of these choices have their advantages and disadvantages. The vaginal route is chosen when the high surgical risk makes the other type of approach inadvisable, and enables the neoplasia to be removed in cases otherwise destined for radiation therapy alone. This method entails a surgical removal of the uterus by a vaginal operation with bilateral adnexectomy and removal of a wide tract of the vagina.

The abdominal route has the advantage of enabling the abdominal-pelvic extention of the disease to be assessed, with the possibility of an accurate staging and of performing a more radical surgery than with the vaginal operation (pelvic lymphadenectomy, removal of intestinal metastasis, random biopsies, peritoneal washing). On the other hand, one of its limits is the fact that it cannot be performed on patients with a high anaesthesiologic or operative risk.

However, improvements in medical therapy and pre- and post-operative care have changed the operability criteria and, in our personal experience, the 54% of operations by vaginal route performed up to 1980 dropped to 9% from 1980 to 1989. Surgical therapy by abdominal route mainly consisted of a radical Piver-

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Rutledge type II or III hysterectomy with bilateral adnexectomy, combined with pelvic lymphadenectomy.

The most frequent complications after surgical therapy arise during and/or after the operation (hypertension crises, cardiorespiratory complications, thromboembolic accidents, metabolic pathologies causing decompensation, urinary problems). Uyttembroeck [1], in a group of 1052 operations carried out by the abdominal route on patients aged 65 or over, found 25 (2.5%) cases of thromboembolic complications, 7 cases of cardiac insufficiency, 2 cases of intestinal occlusion and 1 of cerebral hemorrhage.

The lesions following surgery for adenocarcinoma by the abdominal route are divided into those caused during the operation and those occurring after it. Intraoperative lesions can involve the urinary apparatus, the bowel and the great abdominal-pelvic vessels. The more radical the surgery, the more frequent is the damage to the urinary apparatus (Rutledge III), and it can involve the intrapelvic or juxtavesical tract of the ureter or the bladder itself. In particular, during preparation of tunnel in the parametrium, the vesical tract of the ureter can be damaged which, in the case of a complete section, would require an implant in the bladder. The damage to the ureter can also be the result of angulations or excessive skeletization with lesion of the parietal vessels and consequent alteration of its trophism.

The timely recognition of any intraoperative damage is fundamental, since only immediate treatment will prevent any problems arising afterwards. It should be stressed that these structures must be treated with extreme care to prevent traumas forming wall haematomas which could lead to fistulas (vesical-urinary or ureteral).

The most frequent intestinal lesions involve the anterior wall of the rectum in the case of advanced neoplastic lesions. Intraoperative lesions can include vascular ones, as a possible consequence of the lymphadenectomy, more frequent in elderly patients because of the sclerotic state of their vessels [2]. According to some authors, lymphadenectomy does not cause a greater percentage of intra-and post-operative complications [3].

Other complications arising after abdominal surgery are those of the haemorrhagic type, due to an incorrect ligature of the abdominal-pelvic vessels, or of vascular peduncles and in particular of the pelvic infundibulum. Other post- operative complications can involve a protracted paralytic ileus, especially in obese patients, while in diabetic patients, cases of suppuration of the laparotomical wound can occur, or delay its healing. In very rare cases, there can be complete wound dehiscence with eventration.

Alterations to the lower urinary tract occurring after the more radical operations (Rutledge III) linked to vesical denervation, deserve a separate mention. In particular, immediately after the operation, a vesical hypertonia occurs, the so-called « small and automatic bladder » causing urinary retention. The hypertonic stage is followed by a hypotonia with voiding disturbances. It is important for these patients to carry out correct vesical exercises and, above all, to learn to use the abdominal muscles to ensure that the bladder is completely voided.

Defects in suturing the abdominal wall can cause a ventral hernia to appear later. The lymphadenectomy can cause vascular lesions or the formation of lymphatic spaces (cystic lymphangioma). The removal of a large vaginal cuff can cause difficult or painful coitus in sexually active patients. The width of the vaginal cuff must be assessed, also bearing in mind the patient's age.

Like the abdominal route operation, that by vaginal route can also cause early or late complications. Early complica-

tions are represented by intraoperative lesions of the urinary apparatus (bladder, ureter, urethra) and of the rectum during the Douglas opening. Haemorrhagic problems can arise from an incorrect ligature of the vascular peduncles and in particular the pelvic infundibulum. Later complications involve the urinary apparatus (vesical or uretral fistulas), the intestinal tract (recto-vaginal fistulas) as well as excessive shortening of the vagina (as for the laprotomic operations) and difficult or painful coitus.

OUR SURVEY

Our survey includes 301 cases of endometrial adenocarcinoma (of which around 75% at Stage I) who underwent surgery from January 1976 to December 1992. Up to 1980, the patients were submitted to a total hysterectomy with bilateral adnexectomy, with an almost equal number of vaginal and abdominal procedures. In particular, the vaginal route allows us to perform surgery in patients otherwise destinated to radiotherapy alone because of cardiological or metabolic risk conditions.

From 1980 onwards the improvement in medical and anaesthesiologic assistance, and the more specific knowledge of the biology of tumors — identifying patients at risk for a recurrence of the disease even during Stage I — has enabled 80% of thes eoperations to be carried out through the abdomen. It has thus been possible to achieve a more accurate staging of the disease and to obtain a satisfactory degree of radical surgery (radical hysterectomy with bilateral adnexectomy, type II-III, Rutledge sec. with pelvic and aortic lymphadenectomy in selected cases). The only medical complication we found was an episode of cerebral ictus three days after operating. No lesions occurred, either during surgery or later, in the urinary or intestinal apparatus or to the great abdomino-pelvic vessels. In two cases an adynamic ileus occurred (obese patients), clearing up spontaneously, which required a longer infusion therapy.

Ventral hernia occurred in five patients after surgery, requiring another operation to correct it. In two patients who hand undergone a vaginal operation, the colpectomy caused problems in coitus. Undoubtedly, the surgical therapy of this neoplasia, especially in the more radical abdominal procedures involves a certain morbidity percentage which can be considerably reduced both with correct medical-anaesthesiologic assistance and with a surgical approach aiming at preventing uretral or intestinal damage, whether during or after the operation.

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