PAPERS AND ORIGINALS

Carcinoma of the Vulva

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Summary

A series of 127 patients presenting at two London hospitals with carcinoma of the vulva during the period 1948-70 is reviewed. Patients with intraepithelial carcinoma or rodent ulcer are excluded, but the series includes two cases of malignant melanoma, one of adenocarcinoma of Bartholin's gland, and two of basal cell carcinoma. In the remainder the pathological diagnosis was squamous cell carcinoma.

Leucoplakia was present in only 30 cases (24%) and it is therefore concluded that this condition is probably not so dangerous as a precursor of cancer as has been stated in the past, though an association with cancer of the vulva is undeniable.

In only three cases was no form of treatment practicable. Of the remaining 124, two were treated by radiotherapy, 37 by simple vulvectomy, 12 by vulvectomy followed by separate inguinal lymphadenectomy, and 73 by radical vulvectomy combined with bilateral lymphadenectomy en bloc, pelvic lymphadenectomy being included whenever the superficial lymph nodes appeared to be involved or when Cloquet's node was shown by frozen-section examination to be invaded. Excellent results, with an absolute five-year survival rate of 66%, were obtained with this last procedure, especially when primary skin cover was provided by the delayed technique (five-year survival 73%). The results of simple vulvectomy were also surprisingly good, with an absolute five-year survival rate of 65%, and this operation may be a wise choice for the very old or infirm patient.

Introduction

Carcinoma of the vulva is rare. Approximately 600 cases occur annually in Great Britain, representing 4% of cases of carcinoma

of the generative organs and less than 1% of all carcinomas in women. In this paper the 124 cases treated by various surgeons at St. George's and the Samaritan Hospitals during the 22-year period 1948-70 are reviewed.

Patients

During the period under review 127 patients suffering from cancer of the vulva were admitted and in only three of these had the disease progressed beyond the possibility of treatment by surgery or radiotherapy. Nearly all were white women. Their average age was 63, but 26 were over 75 years old. Pruritus and the finding of a lump or ulcer were the presenting symptoms in most of the patients. Pain was experienced more often than would be expected with skin tumours in other parts of the body, but bleeding was rare. Delay in seeking advice was common.

Aetiology

Most of the patients came from the southern counties of England; there is some evidence that the disease is commoner among women who work in industrial areas, where contamination of their clothing by lubricating fluids is a daily occurrence. The previous medical history showed a relation to hypertension, obesity, and arteriosclerosis. Four had diabetes—3% of the total compared with 8.8% in the series of 238 cases reported by Green *et al.* (1958)—but diabetic vulvovaginitis was never an aetiological factor. There was no known case of syphilis.

While the presence of leucoplakia was clearly established by clinical signs and histological features in 30 cases, proof that it preceded the recognition of cancer was absent in 15. In one woman aged 29 leucoplakia was diagnosed and treated with ointments and creams for two years before a carcinoma was discovered late in her first pregnancy. The accompanying dys-trophy proved to be lichen sclerosus when the vulvectomy specimen was examined histologically (Figs. 1 and 2).

The association of carcinoma of the vulva with other carcinomas is well known, and eight of our patients had an additional primary lesion—one in the stomach, three in the breast, one of the corpus uteri, one of the cervix uteri, one in the bladder, and one on the lip.

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FIG. 1—Lichen sclerosus et atrophicus with mild hyperkeratosis, atrophy of rete pegs, oedema, and homogenization of the upper dermal collagen accompanied by an inflammatory reaction. (H.E. $\times 44$.)

FIG. 2—Same case as Fig. 1. Well-differentiated squamous carcinoma arising in skin adjacent to that showing lichen sclerosus. (H.E. $\times 40$.)

Pathology

Squamous cell epithelioma was the tumour present in 122 cases. There were two malignant melanomas, one adenocarcinoma of Bartholin's gland, and two basal cell carcinomas. Three cases of rodent ulcer of the vulva were seen and treated by vulvectomy during the same period, but they have been excluded from the analysis as lymphatic spread almost never occurs. Two cases were diagnosed as Bowen's disease and these, as well as all lesions diagnosed as carcinoma-in-situ or intraepithelial carcinoma, have also been excluded.

Location

Multicentricity of origin is a feature of the disease, and 16 patients in this series had more than one vulval carcinoma. An ulcerating carcinoma of the labia was the commonest lesion and, as in other series, the anterior half of the vulva was the most frequent site. The clitoris was the primary site in 12 women. Extension beyond the vulva, which has a pronounced deleterious influence on the curability of the disease, was strikingly rare in the present series as compared with that reported by Green *et al.* (1958). At the time of presentation invasion of the urethra was diagnosed on only two occasions, of the vagina

twice, of the perineum three times, and of the anus and rectum twice.

While there was the expected relation between size of growth and prognosis, a strict numerical classification of the cases has not been attempted as little benefit would be gained. For classification in stages to be valuable lymphatic spread would have to be included, and it is not possible by palpation of the groins to forecast invasion with any accuracy. Way (1951) reported invasion by cancer in 43% of nodes which would have been passed as clear by clinical examination.

Treatment

Radical surgery is the treatment of choice, but as carcinoma of the vulva is largely a disease of the elderly, intercurrent disease is not uncommon and may limit the extent of surgery.

The operation which is the prototype of today's radical procedure was first described by Bassett (1912), but as he performed it only on cadavers some years elapsed before it was adopted by other surgeons. The earliest comprehensive analysis of results came from Taussig (1941), who reported a 58.5% five-year survival in 41 patients treated by a double-sided Bassett operation. The work of Way (1951) set the standard for adequate surgery. His original operation combined a wide vulvectomy, removing the mons veneris and a considerable area of skin of the groin, with bilateral inguinal, femoral, and pelvic lymphadenectomy. The vulvectomy wound was left open.

As Way's work became widely known many British surgeons used his technique for all their cases, whether the growth was large or small, leaving a large bare area to heal by granulation. While this operation led to an improvement on the results previously obtained from local vulvectomy, with or without dissection of superficial lymph nodes, it had the disadvantages of fluid loss from the bare area and difficulty of maintaining electrolyte balance, delay in healing with inevitable infection of the wound, and, finally, a rather distorted vulva covered with thin epithelium. Efforts to cover the area with free skin grafts were not successful, so in 1953 at St. George's Hospital a technique in which skin flaps from the thigh are used to cover over the vulval wound was developed with the aid of Elliott Blake (Charles, 1953). The incisions are illustrated in Figs. 3, 4, and 5. The thigh flaps marked "T" are transposed in a sideways and semirotaory fashion to cover the bare area around the vagina, the large crescentic, abdominal flap being brought down

FIG. 3.

FIG. 4.

FIG. 5.

to meet them. By adequate mobilization it is possible to close the large operation wound completely without tension.

In the early cases the transposition of the thigh flap was carried out at the same time as the radical vulvectomy. There was primary healing around the vulva but some sloughing of the upper margin of the flaps and in an area over Scarpa's triangle. Since then an improved technique has been adopted in which, at a preliminary operation, the thigh and abdominal flaps are raised and undercut for about $1\frac{1}{2}$ in (3.8 cm). The undercut incisions are lightly sutured and left for 10 days or so. This technique cuts off the blood supply to the upper margins of the thigh flap, and in 10 days' time it has derived an increased blood supply from its base. The definitive operation is then carried out. Greatly improved healing is obtained and the vulval area is covered by good full-thickness skin far superior to that provided by epithelialization or free grafting.

Operative Technique

The definitive operation is the same whether preliminary preparation of the flaps has been carried out or not. The thigh flaps are raised and mobilized freely. Dissection is started laterally and carried down to the plane of the deep fascia. The lymph nodes are swept inwards. The vertical group of superficial inguinal nodes and the femoral nodes are then removed with the upper 3 in (7.6 cm) of the saphenous vein. Dissection proceeds medially taking all the nodes and fatty tissue en bloc. The fascia lata is not removed. The inguinal canal is opened and dissected towards the midline, and the node of Cloquet (the uppermost of the femoral group) is sought and, if present, removed for examination by frozen-section histology. It may be necessary to divide Poupart's ligament to remove the node.

The opening must be repaired by suturing the medial portion to the pectineus fascia so as to close the femoral canal as far as possible after Cloquet's node has been removed. Closure must not be too assiduous or partial occlusion of the femoral vein may result. If the inguinal or femoral nodes appear to be invaded the operator proceeds to dissect the deep nodes of the pelvis.

As lymphatic spread seldom bypasses Cloquet's node or the lower node of the iliac chain, if frozen-section histology is negative removal of the deep pelvic nodes may be avoided, but should there be any doubt about freedom of the pelvic nodes it is better that they should come out. Although the operation will be prolonged, this will not materially add to the risk unless the patient is very frail. The incision is deepened by dividing the internal oblique and transversalis abdominis muscles as far as the anterior superior spine. The peritoneum is exposed and pushed inwards carrying the ureter on its outer surface. The nodes of the external iliac chain as far as the common iliac artery and the nodes and fat over the hypogastric vessels are removed. Dissection is completed by clearing the obturator fossa.

The next important step is to cover the femoral vessels with the sartorius muscle, which is divided at the junction of the middle and lower thirds of the thigh. The free end is turned upwards and tacked lightly to Poupart's ligament and the medial margin of the adductor longus to fill the gap over the femoral vessels. Apart from providing protection for the vessels, the muscle forms a good bed beneath the skin flaps and fills the deep hollow in Scarpa's triangle which was so conducive to a breakdown of the skin edges in the earlier operation. Dissection proceeds medially over the symphysis pubis en bloc with the previously dissected mass of the femoral and inguinal lymph nodes and fat, and an elliptical incision is made in the vestibule with its apex anterior to the urethral orifice and carried backwards on either side along the vaginal margin.

The vulva is excised completely, and the incision on the side of the growth must be 4 cm clear of it. The thigh flaps are brought across to cover the central area and the abdominal flap is drawn downwards to meet them. Redundant skin should be removed from the top of the thigh flaps but not from the abdominal flap, which, even with the delayed technique, still has a better blood supply. Closure around the sides and back of the vagina can be aided by mobilization of its lower end. Suction drains are left in the thigh well away from the main vessels and a self-retaining catheter is inserted. Closure of the thigh wounds is generally completed without tension, though if a large growth has been removed it may not be possible to obtain a complete skin cover. On such occasions the delayed technique may be inadvisable. Plastic foam pads are bandaged over the dressing to maintain a moderate, even pressure on the flaps. The patient is nursed with her knees together and her hips half-flexed. The foam pads and the drains may be removed in 24-48 hours, after which the operation site is left uncovered under a cradle.

In the two cases in this series with invasion of the urethra the lower half was removed with little ill effect on micturition. Posterior exenteration, if demanded by spread backwards, does not add greatly to the risk of radical vulvectomy, but the operative mortality for vulvectomy plus anterior or total exenteration is appalling.

Results

The summary of treatment in Table I shows an unexpectedly wide variation in approach to the problem by the surgeons concerned. Of the three patients with advanced disease who were regarded as unfit for treatment, one died the day after admission and the second after eight days, while the third survived for five months.

Radiotherapy was given as palliative treatment to one patient,

TABLE I—Treatment of Carcinoma of the Vulva at St. George's and the Samaritan Hospitals 1948-70

By radical vulvectomy	73
By excision of vulva with separate inguinal lymphadenectomy	12
By simple vulvectomy	37
By radiotherapy and later lymphadenectomy for recurrence	1
By radiotherapy alone	1
Total treated	124
Untreated	3

who lived for a further three months, but was intended as curative in another patient not under the care of the gynaecological department; she survived five years.

SIMPLE VULVECTOMY

The relatively large number of cases (37) treated by simple vulvectomy is surprising, as is the high five-year survival rate (65%) (see Table II). In a few cases a limited excision was

TABLE II—Results of Simple Vulvectomy

No. treated	37
Operative deaths	1
Untraced	1
Died after <3 years	9
Alive after <3 years	2
Alive after 3-5 years	4
Five-year survivors	20
Ten-year survivors	9
Absolute five-year survival rate	65%

performed as a palliative measure, but in about half the deciding factors were age and debility. The latter group included two nonagenarians, of whom one survived for five years after her operation; 10 octogenarians, of whom two survived for 10 years, one for five years, and another for four years; and four septuagenarians, all of whom survived five years or more. In four patients in this group the initial diagnosis was intraepithelial carcinoma, but invasive carcinoma was found later. In 14 patients who were under 75 years when seen no reason could be found in the case notes for the rejection of a radical operation, but in only a few can the decision in favour of lesser surgery be criticized on the grounds of contributing towards an early death; 11 lived for over five years and seven of these for over 10 years after the operation.

VULVECTOMY AND INGUINAL LYMPHADENECTOMY

The results of treatment by vulvectomy followed by separate inguinal lymphadenectomy in 12 cases are given in Table III.

TABLE III—Results of Vulvectomy with Separate Inguinal Lymphadenectomy

No. treated	12
Operative deaths	0
Untraced	0
Died after <3 years	4
Died after 3-5 years	2
Alive after <3 years	1
Alive after 3-5 years	2
Five-year survivors	3
Ten-year survivors	1
Absolute five-year survival rate	33%

The results were poor, but in 8 of the 12 the lymph nodes were invaded. A few surgeons have expressed the view that the importance of excision of nodes and growth in continuity has been overstressed, but that view gains no support here.

RADICAL VULVECTOMY

Altogether, 73 patients underwent radical vulvectomy, 42 by the open-wound technique and 31 with primary closure. The results in these cases are given in Table IV.

TABLE IV—Results of Radical Vulvectomy

	Open-wound Technique	Primary Closure	Total
No. treated	42	31	73
Operative deaths	2	1	3
Untraced	2	0	2
Died after <3 years	5	5	10
Died after 3-5 years	6	1	7
Alive after <3 years	4	5	9
Five-year survivors	23	19	42
Ten-year survivors	16	10	26
Absolute five-year survival rate	61%	73%	66%

Invasion of regional lymph nodes by carcinoma was confirmed histologically in 27 cases, an incidence of 37%. In six of these the pelvic nodes as well as the superficial nodes were invaded. Unilateral invasion was present in 19 cases (two with positive iliac nodes) and bilateral invasion in eight (four with positive iliac nodes). In no case was there invasion of the contralateral nodes only. Eight of the 27 patients with positive nodes survived five years and six of these 10 years (absolute five-year survival rate 34%). Of the 46 patients with negative nodes, 34 survived five years and 20 of these 10 years (absolute five-year survival 74%).

In assessing the survival rates untraced patients have been counted as dead and no allowance has been made for death from intercurrent disease. Three (4%) died in the post-operative period, the causes being pulmonary embolism, bronchopneumonia with diabetes, and circulatory failure respectively. Of the remaining 17 who did not survive five years the causes of death were secondary haemorrhage from the femoral artery in one, intercurrent disease in four, and spread of the disease in the remainder.

Of the 31 patients who underwent radical operations with primary closure, in seven closure was obtained solely by undercutting the incisions and drawing them together, with the inevitable necrosis at the margins. Only the superficial nodes were removed.

Of the 24 cases in which skin cover was obtained with thigh flaps, in 12 the flaps were raised at the same time as the definitive operation. There was a degree of necrosis at the top edges, where the flaps met over the symphysis pubis, and at the junction of incisions over Scarpa's triangle in all of these, but the healing in the latter area has been much better since the "sartorius shift" was introduced. The 12 patients treated by "delayed flap cover" all healed per primam except for tiny areas (Figs. 6 and 7). Of these 24 patients, four were alive and well after a follow-up of under three years, four died within five years of operation, and 16 were alive at five years, giving an absolute five-year survival of 80%, and 6 of the 16 five-year survivors had invaded nodes at operation. Of the four who died, three had positive nodes and the fourth died of intercurrent disease without recurrence. Surface recurrences appeared in two patients, but local removal was successful in both cases. The deep nodes were

FIG. 6—Delayed flap operation. Ten days after vulvectomy. (Dark staining around thigh stitches is Bonney's blue.)

FIG. 7—Same case as Fig. 6 three months later.

removed in 22 of these 24 women. We have not traced any recurrence in the groins or the intervening area beneath the flaps which the sacrifice of a larger area of skin might have prevented.

COMPLICATIONS

Severe oedema of the legs occurred four times. In one woman massive unilateral oedema has persisted for 17 years, but she remained content. Prolapse requiring treatment developed in three patients and to a minor degree in several others, but stress incontinence has not been a frequent complaint. Femoral hernia appeared postoperatively in three cases and there were two cases in which femoral vein thrombosis gave rise to anxiety and one case of fatal secondary haemorrhage from the femoral artery.

Discussion

AETIOLOGY

In considering the aetiology of carcinoma of the vulva particular attention must be directed to the chronic vulval dystrophies. Berkeley and Bonney (1909) stated that leucoplakia was the definitive cause of carcinoma at this site. Taussig (1940) found leucoplakia in 69% of 155 cases and Green *et al.* (1958) in 58% of 238. Although the presence of leucoplakia was established in only 30 (24%) of our patients, it would not be right to avoid the argument about conditions over which there is so much controversy.

The term "chronic vulval dystrophy" was introduced by Jeffcoate (1966) to cover those several skin conditions that afflict the vulva and may either precede carcinoma or develop contemporaneously with it. He has repeatedly drawn attention to the unsatisfactory nomenclature of these conditions, which he believes to be variants in the epithelial response of the vulva to its environmental state—damp and warm. According to Whimster (quoted by Jeffcoate, 1962), if dystrophic vulval skin is replaced by healthy skin transplanted from the thigh, the same dystrophy may develop in the new, previously healthy skin. On the other hand, this change has not been observed when broad-based skin flaps from the thigh have been used to cover the denuded area of the vulva after vulvectomy. However, even if Jeffcoate's thesis be accepted, "chronic vulval dystrophy" is too wide a term for the purposes of the clinician and teacher, who must recognize certain clinical entities within that grouping.

From all the variety of names that have been applied from time to time to different vulval skin conditions, three now commonly emerge in the English literature—kraurosis (primary atrophy), leucoplakia, and lichen sclerosus et atrophicus.

Kraurosis

Kraurosis is an atrophic lesion affecting the vestibule, resulting from oestrogen deprivation, and playing little or no part in the development of cancer.

Leucoplakia

Leucoplakia in the mind of most clinicians represents a clear-cut entity in which flat white plaques appear on the mucosal surfaces of the vulva—the clitoris, the labia minora, and the inner aspects of the labia majora, which are bathed in mucous secretions. There may also be red areas, and cracks may develop in the surface. Clinically, the distinction between leucoplakia and lichen sclerosus may be difficult and the former may develop on areas affected by the latter. To increase the confusion, Gardner and Kaufman (1969) think that the lesions we call leucoplakia are really examples of lichen simplex chronicus. Since leucoplakia is essentially a descriptive term, its restriction to cases with specific histopathological findings is somewhat of an absurdity. But although a good case can be made for the abandonment of the term leucoplakia it will almost certainly continue to be used for many years and it is probably better to narrow the definition of the condition to which it is applied even if it takes it farther away from the true etymological derivation.

Histologically, in leucoplakia there is an overgrowth of the horny layer of the epidermis and an increase in the Malpighian layer, with long and irregularly shaped rete pegs which are often split into processes (Fig. 8). In the dermis there is hyalinization of the collagen and a variable amount of round-cell infiltration. Leucoplakia is not a static condition and exhibits hypertrophic and atrophic phases.

FIG. 8—Severe leucoplakia with hyperkeratosis and parakeratosis, florid acanthosis, and a chronic inflammatory infiltrate in the dermis. (H.E. $\times 37$.)

In relation to the possible development of carcinoma the presence of atypical cells in the epidermis with hyperchromatic nuclei and an increased number of mitotic figures is significant. They may appear in little islets well separated from one another. There is complete agreement that epithelial atypia is more to be feared than hyperplasia. Lever (1967) restricted the use of the term leucoplakia to those lesions exhibiting dysplasia, and if this restriction is accepted then the designation of leucoplakia as a precancerous condition becomes justified. Wallace (1962) based his view that leucoplakia is a precancerous disorder on the fact that the histological changes, including dysplasia, are present in the epithelium adjacent to all squamous cell carcinomas of mucous membranes, sometimes extending 1 in (2.5 cm) or more from the tumour.

Jeffcoate (1962) and McAdams and Kistner (1958), who made prolonged prospective studies of women with chronic lesions of the vulva, believed that only a small percentage of them develop carcinoma and that only those in whom histological examination reveals cellular activity are at serious risk.

Lichen Sclerosus et Atrophicus

Lichen sclerosus et atrophicus is another controversial condition, which American authors regard as the precursor of both kraurosis and the atrophic phase of leucoplakia. Lichen sclerosus is found elsewhere in the body, and although it should be included among the chronic vulval dystrophies, subjection to those adverse agents working in the special environment of the vulva is evidently not essential for its development.

The clinical picture of lichen sclerosus in its early stages is of a flat white area involving the vulva and sometimes spreading over the perineal region and the genitocrural folds on to the thighs and buttocks. Later there is a smooth, shining, atrophic surface on which telangiectases may be seen. Anteriorly, oedema of the prepuce of the clitoris may produce phimosis. In well-developed cases gross atrophy of the epidermis, flattening of the rete pegs, and cytoplasmic vacuolization of the basal layer of cells are seen. There is hyperkeratinization, particularly around the follicles. Below the epidermis is a zone of oedema and hyalinization. Diagnosis may be complicated by the development of leucoplakic areas amidst the lichen sclerosus, and Claude Taylor (1962) emphasized how difficult it may be for histologists to distinguish between lichen sclerosus and the atrophic phase of leucoplakia. Wallace (1962) stated that 25% of his patients with leucoplakia had lichen sclerosus as a precursor.

TREATMENT

Invasion of lymph nodes has a very important bearing on prognosis, as metastasis is present in about half the patients when carcinoma of the vulva is diagnosed. There is no justification for omitting dissection of the groins because nodes cannot be felt, even if the woman is old, and there is little added risk if she is frail so long as immediate skin cover is provided.

Dissection of the pelvic lymph nodes on both sides adds to the length of the operation, but must be included if the inguinal nodes are invaded. When there is no obvious involvement of the inguinal group, Cloquet's node may be used as an arbitrary sentinel; if after frozen-section examination by a histologist it is passed as free from invasion, then the pelvic nodes may be left. We are confident that this procedure is reliable, but Collins *et al.* (1963), who did not believe that there is metastasis in continuity, were critical of histological sampling during the operation to determine whether the pelvic nodes should be removed, since dangerous errors could arise if each node is not examined in its entirety. These authors found two cases in which the obturator nodes were positive while the superficial inguinal nodes were negative, and in four out of six of their patients with positive obturator nodes Cloquet's and the external iliac nodes were free of growth. This is a rare finding; in none of the cases in our series were the obturator nodes invaded.

Green *et al.* (1958) found no cases of pelvic node involvement when the nodes in the groin were free, but Way (1951) found that 3% of his patients had positive deep nodes with negative superficial nodes. If the growth of the vulva is on one side only, then it is rare for the nodes of the opposite side to be invaded. If the nodes on the side of the lesion are free, then invasion of the contralateral group is very uncommon, and in the present series no instance of this was found. Doubt has been cast on the usefulness of deep pelvic node extirpation, the suggestion being

that if carcinoma has spread above the groins, then little benefit would come from extending the operation. However, in two cases in the present series patients with positive iliac nodes have lived 10 years after operation.

In 85 of our patients the nodes were dissected and in 35 (41%) invasion by carcinoma was found. This proportion is rather less than in other series, but full serial sections cannot be guaranteed in all cases and the true incidence may have been a little higher.

In the light of these considerations it is remarkable that simple vulvectomy was used in so many cases in the present series and that so many of these patients survived for five years or more. Good fortune probably played a part in producing these unexpectedly good figures, but it must be allowed that my former colleagues have at times displayed a clinical acumen akin to clairvoyance in their decisions in favour of the limited operation. Comparison with other series is difficult since these often include intraepithelial carcinomas and rodent ulcers, which have been eliminated from the present analysis. The two patients with basal cell carcinoma who are included among the simple vulvectomy results do not affect the percentages as one survived five years and the other did not.

Easton (1955) reviewed 143 histologically proved vulval cancers seen at the Middlesex and Soho Hospitals, London. Forty-three were treated by simple vulvectomy or local excision with an absolute five-year survival rate of 61%, but there were eight cases of rodent ulcer, Bowen's disease, or intraepithelial carcinoma among them. In Easton's series simple vulvectomy was performed on patients without palpable nodes, and in a re-examination of the available tumour sections Andrews (1955) concluded that the good results were probably due to the fact that most of them were well or fairly well differentiated. Node involvement was shown to be much less frequent with well-differentiated tumours than with poorly-differentiated tumours.

Even if the fullest allowance is made for selection, these results for simple vulvectomy from four London hospitals do not fit in with the oft-quoted 20-30% five-year survival rate obtained before Taussig (1940) reported his experience with Bassett's technique. While there is no desire to encourage a wider use of simple vulvectomy, there is evidently a place for restraint in the treatment of elderly and debilitated patients.

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