MALIGNANT POTENTIAL IN VULVAR DYSTROPHY

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SUMMARY

During the period 1971-1978, 254 patients with chronic vulvar dystrophy were studied. Of these, two patients with an original diagnosis of dystrophy presented invasive microcarcinoma and Bowen's disease after four and six years, respectively. The risk of neoplastic transformation in vulvar dystrophies is therefore relatively low, in agreement with other workers, and develops usually in the hyperplastic and mixed forms.

Except in selected cases, mutilating therapy is therefore contraindicated.

Lecture at the International Meetings of Gynecological Oncology
Venice, 23-27 april 1979

The chronic vulvar dystrophies, including all the variously defined lesions (leukoplakia, LSA, neurodermatitis, hypertrophic vulvitis, kraurosis etc.) for some time have been considered lesions with high malignant potential.

This depends mostly on the reports of Berkeley, Bonney and Taussig ([1, 2, 3]) who, in the first half of the century, following, the observation that more than half of the patients with vulvar carcinoma presented associated leukoplastic lesions, reached the conclusion that 50 % of patients with vulvar leukoplakia were destined to develop cancer.

Nevertheless, the high malignant potential attributed to the vulvar dystrophies was based on retrospective data only, while the predisposition of any epithelial disorder to evolve into cancer may be studied adequately only in prospective. Taussig himself reported that only three of the patients he had treated with medical therapy and followed, eventually developed cancer.

Currently, on the basis of prospective studies, the malignant potential of the vulvar dystrophies has been revised, as demonstrated by several workers who have indicated a different evolutionary possibility in the various forms of dystrophy ([4, 5, 6, 7, 8, 9, 10]).

MATERIAL AND METHODS

From 1971 to 1978 we have treated 254 patients presenting with chronic vulvar dystrophy. Follow-up of these patients ranged from 1 to 8 years and 162 patients have been seen for more than 5 years. Employing the terminology proposed by the International Society for the Study of Vulvar Disease ([11]), the dystrophies were classified on the basis of histological findings as: atrophic (158 cases), hyperplastic (57 cases) and mixed (39 cases).

Biopsies were carried out on the basis of positivity with Collin's test on lesions which were evidently macroscopically suspect.

RESULTS

Two patients with an original diagnosis of vulvar dystrophy (one was hyper-

plastic in type, and the other, mixed) during the course of medical treatment and repeated controls developed a neoplastic lesion in the vulvar site, 6 and 4 years, respectively, after their first examination.

In our patient series, 11 had pictures of dysplasia and 5 of these were treated with excision of the lesion because 6 months after medical treatment the histological picture had not improved.

Furthermore, the two patients with malignant degeneration did not show cellular atypia in their preceding bioptic controls.

CASE REPORTS

Case 1: M.E. was first seen in October 1971, when she was 38 years old. She presented with a dystrophic lesion that involved a good part of the labia majora and the perineal region, associated with intense pruritus that had first appeared during her penultimate pregnancy, several years previously. She also accused dyspareunia (fig. 1).

Multiple biopsies demonstrated a typical picture of hyperplastic dystrophy with no evident signs of cellular atypia (fig. 2).

Following topical treatment with testosterone propionate associated with corticosteroids, she reported remarkable improvement in her subjective symptoms.

From a histological point of view, the hyperplastic-type alterations were still present but appeared less accentuated with a remarkable reduction in the inflammatory infiltration of the dermis. The patient was kept on maintenance therapy with periodic bioptic controls, and the situation remained stationary until April 1977 when she became pregnant. Local therapy was immediately suspended and during the third trimester intense pruritus re-appeared.

The patient gave birth in January 1978 and topical therapy was re-applied the following month. In June 1978, histological examination of a biopsy specimen disclosed the presence of invasive microcarcinoma (fig. 3-4).

In consideration of her age a conservative vulvectomy was performed with inguinal lymphadenectomy. Serial histological examination of the surgical specimen confirmed the previous diagnosis while the lymph nodes were negative for metastasis.

Case 2: M. G. was first seen in May 1973 at age of 61 years, and the biopsy diagnosis was mixed dystrophy (fig. 5-6).

Local therapy was prescribed and she presented alternate phases of reduction and worsening of the symptoms, which were essentially pruritus and a burning sensation.

Successive biopsies were taken according to the results of the Collin's test and in suspect lesions and no substantial changes were reported until July 1977.

On that occasion, histological examination of a biopsy specimen from the vestibular site disclosed the presence of Bowen's type intraepithelial carcinoma (fig. 7-8).

A simple vulvectomy was performed in consideration also of the extention of the dystrophic lesions that involved the vulva. Serial histological examination of the surgical specimen confirmed the diagnosis of Bowen's disease and multiple mixed type dystrophic lesions. A few months following surgery she represented with dystrophic type lesions, but biopsies of the suspect lesions have been negative for recurrence. The patient is still in follow-up.

DISCUSSION

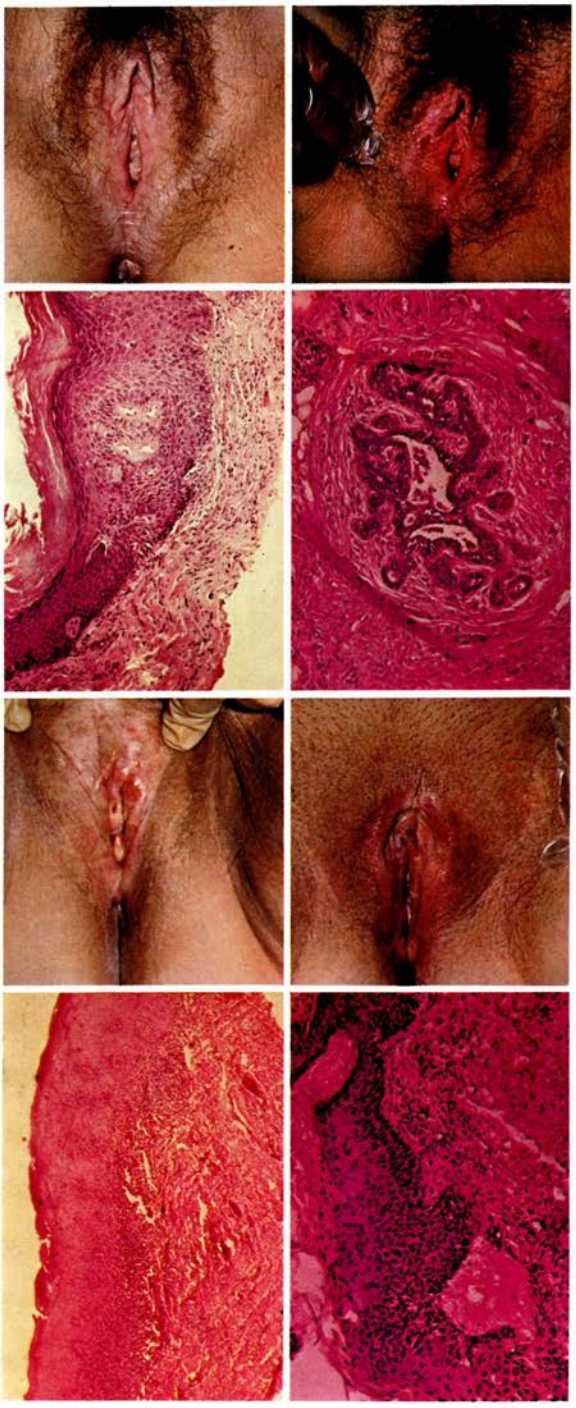
Almost all workers ([7, 8, 12, 13]) agree in attributing to the hyperplastic and mixed dystrophies a greater disposition to degenerate into cancer, even if others ([14, 15, 16]) do not exclude that LSA might have certain malignant potential, essentially on the basis of studies on the metabolic activity of atrophic epithelium.

In our series, the percentage of degeneration observed in the dystrophies was less than 1 % and reaches 2 % if only the hyperplastic and mixed forms are considered.

Incidence of malignant evolution has been evaluated at about 5 % by some workers ([7, 12]), but in series recently reported ([9, 13, 10]), this incidence is remarkably lower and it is evaluated at 1% (table 1).

We agree with these workers regarding the frequency, and we consider that this reduction is doubtlessly due to the efficacious prophylaxis of the vulvar neoplasias realized with the creation of specialized centers.

In regard to the hyperplastic dystrophies, however, the form showing more or less marked cellular atypia should be considered at high risk.



CASE I: M. E. a. 38.

Fig. 1. — Clinical picture.
Fig. 2. — Clinical picture.
Fig. 3. — Hyperplastic dystrophy.
Fig. 4. — Invasive microcarcinoma.

CASE II: M. G. a. 61.

Fig. 5. — Clinical picture.
Fig. 6. — Clinical picture.
Fig. 7. — Mixed dystrophy.
Fig. 8. — Bowen's type intraepithelial carcinoma.

Table 1. — *Incidence of malignant potential in vulvar dystrophy.*

	Yrs. under observation	Hyperplas. and mixed dystrophy	Degeneration into Ca	Atrophic dystrophy	Degeneration into Ca	Non classified dystrophy	Degeneration into Ca
Hunt (1940)	—	96	1				
Langley (1951)	1-5	122	1				
Bottiger (1952)	8	78	7			82	—
Jeffcoate (1966)	3-25					138	4
Gardner (1974)	5-25			32	—		
Mecznikowsky (1978) . .	1-11	165	3	14	—		
Di Paola (1979)	5	34	1	120	—		
Ambrosini (1979)	1-8	96	2	158	—		

Jeffcoate ([7]) considers that the risk of neoplastic transformation is serious only if the initial biopsy shows hyperplasia with atypia, a picture defined also with the term dysplasia.
Gardner and Kauffman ([8]) retains that, in absence of atypia, the risk of a consequent carcinoma is practically null.

For the exposed reasons, we carried out the excision of dysplastic lesions in those cases which, after medical treatment, did not show any modification in their histological pictures.

CONCLUSION

These results suggest important considerations regarding the therapy of the vulvar dystrophies. Many workers are still reluctant to abandon vulvectomy as therapy for the chronic vulvar lesions in view of the high malignant potential attributed to the chronic vulvar dystrophies. In fact these should not be considered as pre-malignant lesions and, consequently, drastic surgery should be reserved exclusively for hyperplastic lesions with the presence and persistence of cellular atypia. In these cases the lesion should always be excised, while vulvectomy should be limited to cases of dysplasia with multicentric foci.

Abstention from mutilating surgery is further justified by the high incidence of recurrences of dystrophic lesions in surgically treated patients ([5, 7, 13, 14]).

Prophylaxis of vulvar carcinoma in patients with chronic vulvar dystrophy is thus based essentially on:

— accurate evaluation and correct diagnosis achieved by multiple biopsy;

— elimination of all factors which contribute to the onset of cancer (inflammation, irritants, viral infections, etc.);

— reduction and possibile elimination of subjective symptoms;

— periodic control with repeated biopsy specimens on the basis of colorimetric tests and on suspect lesions;

— excision of dysplastic lesions.

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