

EPIDEMIOLOGY OF CANCER OF THE VULVA

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Epidemiology of cancer of the vulva is an interesting subject. Several factors have been recognised to predispose to the disease. But such factors are present only in a small number of cases. The relation of the chronic epithelial dystrophy of the vulva to the subsequent growth of carcinoma is also a debatable subject. The study of the epidemiology of the disease should include retrospective analysis of the factors associated with epithelioma of the vulva as well as a prospective study of the risk of malignant change in chronic epithelial dystrophies of the vulva.

Material and Methods

The present series consists of 25 cases belonging to two different groups. In the first group are 15 women with epithelioma of the vulva. The age, race, social

condition and other associated factors in them are analysed to ascertain their relation to the growth of the carcinoma. In the second group are 10 women who presented with white lesions of the vulva. The clinical features of these lesions were noted and biopsy was done to determine the epithelial pattern and cellular activity associated with these lesions. All cases were followed up from 5 to 8 years with one exception where the period of follow up upto date is 2 years. Biopsy was repeated when the response to conservative treatment was unsatisfactory, and also in cases of recurrence following local excision of the lesion.

Results

Table I shows the age, marital status, race, profession and co-existent lesion in the 15 cases of epithelioma of the vulva.

TABLE I
Associated Factors in 15 Cases of Carcinoma of the Vulva

Age in years	No. of cases	Marital status	Profession	Race		Associated white lesion
				White (English)	Coloured (Indian)	
51-55	1	Married	House-wife	1	Nil	Nil
56-60	2	"	"	1	1	Nil
61-65	6	"	"	5	1	1
66-70	4	"	"	3	1	Nil
71 more	1	"	"	1	Nil	Nil
Total	15	15	15	11	3	1

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These cases were seen amongst 6500 clinic patients above 50 years of age. Nearly half of them belonged to white race and the other half were Indian women. No

patient in this series had contact with known carcinogenic agents like coal tar, mineral oil, and none was exposed to deep X-ray therapy. Two cases showed multicentric origin of the growth from the vulva. But the disease was never associated with malignant lesion in other genital or extra-genital organ. In one the epithelioma superinvaded on a pre-existent lesion of the vulva. In others the malignancy occurred de novo, and there was no pre-existent lesion which might have predisposed to its growth.

The prospective study includes 10 cases of white lesion of the vulva. All these women were above 40 years of age. Table II shows clinical features, histological characteristics, treatment, and the subsequent behaviour of these lesions. Of the 10 lesions, 4 were leukoplekia vulva, all associated with pruritus. The lesions were characterised clinically by white discolouration of the skin of the vulva over a variable width. The skin was thick rough and dry. Histology showed hyperkeratosis, hypertrophy and branching of the rete pegs, and subepithelial round cell infiltration (Fig. 1 & 2). Of these 4 patients, one 80 years old woman was treated conservatively. She died of intercurrent disease within a year. The other 3 were treated by simple vulvectomy and were followed up between 5 to 8 years. There was recurrence in one, and subsequent biopsy showed epithelial activity similar to that found in the original lesion.

There were 5 cases of lichen sclerosus vel atrophicus. The lesion was characterised by white discolouration and thin smooth skin. Three of them had pruritus vulvae, the other 2 were asymptomatic. Histology showed hyperkeratosis and epithelial atrophy. All cases were treated conservatively with symptomatic improvement. They were followed up for 5

TABLE II
Characteristic Features of the White Lesions of Vulva in 10 cases

Lesion	No. of cases	Pruritus	Appearance of skin	Cellular activity	Treatment		Follow up		Recurrence following operation	Malignancy
					Surg.	Conserv.	More than 5 yr.	Less than 5 yr.		
Leukoplakia	4	4	Thick, rough, cracks	Hypertrophy	3	1	4	Nil	1	Nil
Lichen sclerosus vel atrophicus	5	3	Thin, smooth	Atrophy	3	2	4	1	Nil	Nil
Lichen sclerosus with an ulcer	1	1	Thin, smooth, Ulcer superficial	Atypicalism	1	—	—	1	Nil	Nil
Total	10	8			7	3	8	2	1	Nil

to 8 years without evidence of malignant change.

The remaining case of white discolouration of the vulva was associated with a superficial ulcer bordering the lesion. Biopsy showed marked atypical cellular hyperplasia at the base and margins of the ulcer (Figs. 3 & 4). The cellular unrest was also observed in the white lesion near the margin of the ulcer. At the periphery the white lesion showed epithelial inactivity. The ulcer was excised. The case is being followed now for 2 years without any evidence of recurrence.

Discussion

Retrospective analysis of the factors associated with epithelioma of the vulva shows that the age is an important factor in the causation of the disease. Eleven of the 15 cases in this series occurred after 60 years of age. The tumour also shows marked racial variation. It is 4 times more common in white race than in the coloured population of comparable age. Prolonged exposure to carcinogenic agents may be important, but absence of such factor in any case in this series shows that it is not a common cause of epithelioma of the vulva. Similarly, only in one case in this series the tumour supervened on a pre-existent white lesion. The association of the tumour with malignancy in other organs, cited as an evidence of inherent abnormality in the metabolism of the cells, could not be corroborated by the findings in this series.

The prospective study showed no subsequent malignant change in the cases of leukoplakia or in lichen sclerosus vel atrophicus. None of them showed atypical cellular hyperplasia. The findings corro-

borate the contention that the risk of subsequent epithelioma in lesions with no cellular atypicalism is negligible (Jeffcoate and Woodcock).

The Ulcerative lesion of the vulva, associated with Lichen sclerosus, showed marked cellular atypicalism. There is a 10 per cent chance of subsequent malignancy in lesions with such epithelial unrest (Jeffcoate and Woodcock, 1963). Novak and Jones (1971) also recognise that the more atypical degrees of hyperplastic vulvitis, presenting as white lesion, are precancerous, but a whitish appearance itself unassociated with any histological atypia is of much less significance. The case in this series which showed atypical epithelial hyperplasia is followed upto date for 2 years. The period is too short to be certain of the eventual behaviour of such lesion.

Summary

The present paper is a study of epidemiology of carcinoma of the vulva. In 15 cases of epithelioma, age and race were found to be the most relevant factors. Thus 12 women were above 60 years of age, and the lesion was 4 times more common in white race. Prospective study of 10 cases of chronic epithelial dystrophy of the vulva confirmed that the risk of subsequent malignancy is negligible in lesions which show no atypical epithelial activity.

References

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See Figs. on Art Paper VII