1st International Symposium on Vulvar Cancer
Madrid 1971

Aspects and Treatment of Vulvar Cancer

Editor:
L. López de la Osa, Garcés, Madrid

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List of Contributors

Aldama Magnet, Javier, M.D., Assistant Professor of the 1st Department of Obstetrics and Gynecology, Faculty of Medicine, University of Madrid, Madrid (Spain)

Almendral, Alfonso C., M.D., Chief of the Department of Gynecological Oncology, University of Basel, Basel (Switzerland)

Bonilla Musoles, Fernando, M.D., Assistant Professor of the Department of Obstetrics and Gynecology, Faculty of Medicine, University of Valencia, Valencia (Spain)

Botella Llusia, José, M.D., Professor of the 2nd Department of Obstetrics and Gynecology, Faculty of Medicine, University of Madrid, Madrid (Spain)

De la Plaza, Rafael, M.D., Chief of the Section of Anaplasty of the National Institute of Oncology, Madrid (Spain)

De Valera, Eamonn, M.D., Doctor in Obstetrics and Gynecology of the National Maternity Hospital of Dublin, Dublin (Ireland)

Fernandez Villoria, Eduardo, M.D., Associated Chief of the Obstetrical and Gynecological Department, Jimenez Diaz Foundation, Autonomous University of Madrid, Madrid (Spain)

García Caballero, Ricardo, M.D., Assistant Doctor of the Gynecological Service, National Institute of Oncology, Madrid (Spain)

García Orcoyen, Jesus, M.D., Professor of the 1st Department of Obstetrics and Gynecology, Faculty of Medicine, University of Madrid, Madrid (Spain)

García Orcoyen Tormo, Jaime, M.D., Assistant Professor of the 1st Department of Obstetrics and Gynecology, Faculty of Medicine, University of Madrid, Madrid (Spain)

Gil Gayarre, Carlos, M.D., Professor of the Department of Fisical Therapeutic, Faculty of Medicine, University of Salamanca, Salamanca (Spain)

Gil Gayarre, Miguel, M.D., Professor of the Department of Fisical Therapeutic, Faculty of Medicine, University of Madrid, Madrid (Spain)

Gonzales Blasco, Gonzalo, M.D., Assistant Professor of the 1st Department of Obstetrics and Gynecology, University of Madrid, Madrid (Spain)

Käser, Otto, M.D., Chief Professor of the Department of the Maternity University of Basel, Basel (Switzerland)

KRUPP, PHILIP JOSEPH, jr., M.D., Associated Professor of the Department of Obstetrics and Gynecology, Tulane University, School of Medicine, New Orleans, La. (USA)

LÓPEZ DE LA OSA, LEÓN, M.D., Chief of the Service of Gynecology, National Institute of Oncology, Madrid, Madrid (Spain)

LÓPEZ GARCÍA, NICOLAS, M.D., Assistant Doctor of the Service of Gynecology, National Institute of Oncology, Madrid (Spain)

NOGALES ORTIZ, FRANCISCO, M.D., Chief of the Laboratory of Pathological Anatomy of the 2nd Department of Obstetrics and Gynecology, Faculty of Medicine, University of Madrid, Madrid (Spain)

RECASENS, EUGENIO, M.D., Professor of Obstetrics and Gynecology, Jimenez Diaz Foundation, Autonomous University, Madrid (Spain)

RECIO SÁNCHEZ, S., M. D., Gynecological Service, INO, Madrid (Spain)

REVIRIEGO, A., M.D., The National Institute of Oncology, Madrid (Spain)

SÁNCHEZ CLEMENTE, C., M.D., Gynecological Service, INO, Madrid (Spain)

SANZ ESPONERA, JULIÁN, M.D., Chief of the Service of Pathological Anatomy, National Institute of Oncology, Madrid (Spain)

ULFELDER, HOWARD, M.D., Clinical Professor of Gynecology, Harvard Medical School, Boston, Mass. (USA)

VALERA UNA, MANUEL, M.D., Chief of the Service of Gynecology of the State Hospital of Madrid, Madrid (Spain)

WOLFF, J. P., M.D., Chief of the Service of Gynecology, Gustav Roussy Institute, Villejuif, Paris (France)

WAY, STANLEY, F.R.C.O.G., Chief of the Department of Oncology, Queen Elizabeth Hospital, Gateshead (England)

Foreword

We are happy to collect the first contributions from colleague participants in this International Symposium of Vulvar Cancer held in Madrid under our direction which completes the work that we have been doing for years on the actualization of the problems related to this malignopathy. In the name of our Institute we would like to thank all participants for their valuable collaboration in these sessions. I think that the publication of all the papers presented at this Symposium will be of great interest to all gynaecologists and should certainly be in the medical bibliography.

We thank Karger editors from Basel for their important cooperation in the diffusion of medical progress.

León López de la Osa Garcés

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Precancerous Lesions of the Vulva

J. García Orcoyen

Department of Obstetric and Gynecology I, Faculty of Medicine,
University of Madrid, Madrid

The interest in what we might call the natural history of cancer involves its location in every part of the body, and recently there has been an intensified effort in compiling epidemiological data that might relate particular factors with its incidence in certain locations.

In regard to cancer of the vulva, a part of this natural history, as described in nineteenth century tracts and journals, refers to the emphasis placed on certain antecedents, such as its greater frequency in poor social classes, the absence of hygiene, the frequency of irritative and infectious antecedents, etc.

More recently the recognition of lesions prior to invasive cancer in other locations, mostly in the cervix and vagina, have facilitated the application of criteria similar to those used in the study of cancer of the vulva.

The use of the term 'precancerous lesion' has been objected to, if it means a necessary evolutional process toward the cancerization of the lesions. The term is acceptable if it means that in the study of invasive carcinomas there figure as antecedents prior nonmalignant lesions and preinvasive states classified as carcinoma *in situ*.

We have maintained repeatedly that there exists a progressive order of lesions which finally take on an invasive character, that it is possible to arrest or regress the evolution of these lesions, and that they do not necessarily have to evolve to their state of malignancy.

The group of lesions that are considered to be precancerous consist of a group of dystrophies whose simplest form is senile atrophic vulvitis which becomes more frequent with time after menopause. These lesions

cannot be considered to be precancerous affections, but are in fact a minimal dystrophy on the border of being pathological.

Kraurosis constitutes a more intense dystrophy that is clearly different from the former since it does not have a senile character, even though it is observed more frequently in relatively late ages, and since it shows a sclerotic infiltration which gives a rigid aspect to the mucous membrane.

Its differentiation from lichen sclerosus et atrophicus is still controversial, and different types are described even in kraurosis, as leukokeratosis lesions and even incipient leukoplasia are observed.

Its microscopic aspect is defined by a hyperkeratosis with atrophy of the malpighian bodies, hydropic degeneration of the basal cells and a marked edema and homogenization of the collagenous fibers in the superficial dermis.

Lastly, leukoplasia which is observable in more or less extensive forms as bluish-white spots that form small isolated areas or other more extended areas over the whole vulva. The surface is wrinkled and in some cases warty.

The hypertrophic lesions of leukoplasia are characterized by hypercanthosis of the epithelium and lengthening of the papillas. The surface of the epithelium is observed as granulated with a thick, coherent cornea covering on its surface, with a variable inflammatory dermic infiltration. We have described a case of intense dermic infiltration by eosinophils.

The pruritus which may or may not accompany these dystrophies follows its clinical course.

To these dystrophic and, in a way, also dysplastic processes are added 3 types of lesions which can be considered to be carcinomas *in situ* or precursors which approximate very closely invasive cancer of the vulva.

Carcinoma *in situ* proper is Bowen's disease and Paget's disease.

These concrete aspects will be treated in the symposium and we will give a brief critical judgment of the present situation in regard to these lesions in their relation to cancer of the vulva.

This relation seems quite variable, according to the point of departure taken. Taussig's statistics are very revealing in that they show leukoplasia as an immediate antecedent of this cancer in 48% of the cases and kraurosis in 13% [1913].

In 1940, Taussig said that throughout his career he had not seen this cancer develop in patients treated for dystrophy except in 3 instances. Similar observations are found in worldwide literature.

We can conclude that vulvar dystrophies with a unitary dysplastic character are parallel to the order of lesions observed in the cervix.

The work of CLARK [1970] and his associates has demonstrated with P-32 a radioactivity in dystrophic areas very similar to that found in carcinomatosous lesions.

Its evolution to vulvar carcinoma may be exceptional but, on the other hand, these dystrophic processes are usually found in the antecedents or in the proximity of the carcinomatosous vulvar lesion.

And this is the only sense in which these lesions can be considered as possibly but not necessarily precancerous.

Reference

CLARK, D. G.; ZUMHOFF, B.; BRUNSCHWIG, A., and HELLMANN, L.: Preferential uptake of phosphate by premalignant and malignant lesions of the vulva. Cancer *13:* 775 (1970).

Author's address: Prof. Dr. JESÚS GARCÍA ORCOYEN, I Catedra de Ginecologia, Hospital Clinico de San Carlos, *Madrid, 3* (Spain)

Aspects and Treatment of Vulvar Cancer
1st Int. Symp., Madrid 1971, pp. 4–15 (Karger, Basel 1972)

Etiology and Pathogeny of Carcinoma of the Vulva

L. López de la Osa Garcés

Gynecological Clinic, National Cancer Institute, Madrid

The vulva has a very complex histological structure that consists of different kinds of histological and biological elements. The different embryological origin of these elements determines the different varieties of carcinomas that appear. The epithelial cells of the labia mayora and menora, as well as the glans and prepuce of the clitoris, have an ectodermic origin. The vestibular covering, the opening of the urethra, and the fossa navicularis are derived from the endoderm; the hymen from the endo and mesoderm.

Carcinoma of the vulva is quite polymorphous, and has blastomas of both the skin and the mucous membranes. Epithelial cells of every type exist in the vulva (flat, cylindrical and transitional).

The vulvar carcinoma has perfectly defined characteristics: (a) it is very infrequent in relation to other gynecological cancers; (b) it appears frequently in elderly women; (c) there is a possible relation between the lesion and a late menarche with early menopause; (d) multiparity also influences the development of this carcinoma; (e) it is often preceded or associated with lesions that are considered precancerous (leucoplasia, Bowen's disease, Queyrat's erythroplasia, and Paget's disease); (f) the most commonly found histological type corresponds to the spinocellular carcinoma; (g) it is frequently located in the labio-clitoral region; (h) in the beginning it is subjectively asymptomatic most of the time, and if there is some symptomatology which precedes the lesion, pruritus is usually the most frequent symptom; (i) it is easily propagated along the lymphatic ducts, and (j) it is a process that can be detected early by Collin's chromoscopic test.

Frequency

Vulvar cancer appears with an average frequency of 4.9% among gynecological cancers. This percent increases notably as the average age of the woman increases, while carcinoma of the cervix decreases in frequency. The early detection of this cancer is noticeable in the index of its incidence.

We do not yet have a general record, in Spain, of tumors that would centralize control of this gynecological affection. WAY [1955] recorded some 15 years ago in his country the annual appearance of 1 vulvar carcinoma for each 44,556 women of all ages.

In the experience of our clinic the incidence of cancer of the vulva is very high, 11.7%, which is a little more than twice what is considered average. The special characteristics of the National Cancer Institute make the number of cases of this genital malignancy rather different from that found in the statistics of gynecological clinics.

The large number of cases of vulvar carcinoma treated at the Institute clinic is due to the fact that many gynecologists from different provinces of Spain and from Madrid send their patients to the Cancer Institute to be given some specific treatment, by a specialized team of doctors, which is of greater benefit for the patients. A section with 6 beds and 2 nurses per month is available specifically for cases involving the vulva. A team of plastic surgeons, gynecologists and nurses trained in these techniques care for the patients, which is all provided for by an annual hospitalization rate of 80%. This also perfects the experience of the group as it becomes better acquainted with the illness and its treatment. The rarity of this illness in the gynecological clinic naturally does not permit a mastery of its medical and surgical treatment on the part of those who may receive only 1 or 2 cases a year.

Table I. The frequency of female genital carcinoma according to location

	Source					
	vulva	vagina	cervix	uterus	fallopians	ovary
Nat. C. Inst.	11.7	1.7	70.3	11.3	0	5.9
General	4.4	3.8	71.9	11.7	0.06	8.6

Geography of the Pathology

Since the beginning of this Institute service in September, 1962, to December, 1970, 1,008 gynecological cancers have been treated, 120 of which were located in the vulva. In a study of the birthplaces of the patients in relation to the female population by province, we began a geographical study of the pathology of the disease (which we offer as merely a beginning) so that complementing it with data from the gynecologists we could produce a true picture of the distribution of the lesion as it is related to the nature of the patients.

The patients came from the following provinces:

In our study 31 patients were born in Madrid. The number of living women in Madrid and its province is 1,713,549 (1968 census). We did not count cases treated in other clinics, which would increase the ratio.

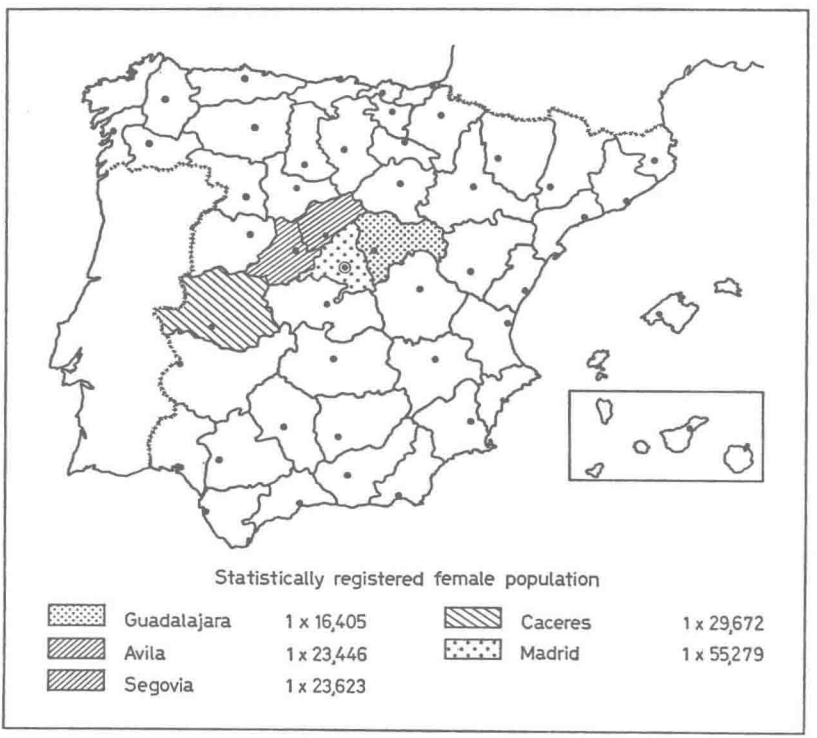

Fig. 1. Map of female population.

Table II

Alicante	1	Cádiz	2	Huelva	1	Salamanca	3
Almaría	1	Castellón	1	Huesca	1	Segovia	4
Asturias	1	C. Real	7	Jaén	7	Sevilla	1
Avila	5	Córdoba	3	León	4	Toledo	7
Badajoz	8	Coruña	3	Madrid	31	Valladolid	2
Burgos	3	Cuenca	3	Murcia	3	Zamora	1
Cáceres	9	Guadalajara	4	Palencia	2	Zaragoza	1
Total							120

Table III

Ages	Female population
31–40	2,318,720
41–50	1,890,547
51–60	1,658,279
61–70	1,227,989
71 plus	930,144

The ratio thus obtained is 1 case of vulvar carcinoma for every group of 55,279 women.

Our patients came from 28 provinces of Spain, in which there is a total female population of 7,144,463 persons. This population in relation to the 120 cases studied also gives a ratio of 1 case of vulvar carcinoma for every group of 55,279 women. These figures are only initial, and we hope that when they are complemented with those of other authors they will express the reality.

We have noted a high incidence in some provinces, such as Guadalajara which has an alarming proportion of 1/16,400 women, followed not far by Avila with 1/23,623, and Cáceres with 1/29,672.

Age

It is known that in general the appearance of the cancer is more frequent as the age of the person suffering from it advances. This is something geratonology has not yet explained. The age of greatest incid-

Table IV. Ratio of vulvar cancer to age

Age	Patients	Ratio
31–40	1	1:2,318,723
41–50	6	1:315,091
51–60	22	1:75,376
61–70	49	1:25,061
71 plus	42	1:22,146

Table V. Percentage of vulvar carcinoma in old age

Age	López de la Osa Garcés	Way [1955]	Collins [1967]	Ahumada [1953]	Green *et al.* [1958]	Botella [1967]	Rutledge [1965]
0–50	7.5	20.6	29.5	26	15.6	9.6	27
51–70	61.7	64.4	49.9	60	36.2	51.0	73
71 plus	20.5	14.7	20.7	14	15.0	39.1	–

ence for the appearance of a cancer is 40. For cancer of the vulva it is 60.

The incidence begins to diminish after 70, but this does not mean that the incidence diminishes in relation to the increase in age but that the number of women alive at this advanced age decreases. In Spain at the end of 1960 the number of women alive over 30 was as follows:
We deduce from this, in accordance with the number of cases we have seen, that the malignant vulvar disease seems to be related to age in the proportion shown in table IV.

There is a marked statistical difference between the figures given by foreign authors and the Spanish figures in regard to the frequency of vulvar cancer in patients under 50 years of age (table IV). It is not simply a coincidence that the data from the Cancer Institute [López de la Osa Garcés, 1968] and a university clinic [Botella, 1967] are so low for ages below 50 and so high for the other pole of life over 71 years of age.

Below 50 years of age the incidence does not pass 10%, and yet after 71 only Collins has a percentage as high as our 20.5%, and Botella' is 39.1%. We might consider that there is some determining factor in the Spanish woman.