

THE INFLUENCE OF AGE ON THE SURVIVAL RATES OF UTERINE CARCINOMA

(A Preliminary Report)

by

LOKENATH BHOSE*, M.B., D.G.O. (Cal.), M.R.C.O.G.

and

RAMAPROSAD GHOSH**, B.A.

In carcinoma of the uterus the extent of the disease, the nature of the treatment, its type and technique are some of the factors that are known to influence the ultimate prognosis. These factors are controllable to a certain extent by the modification of the treatment and early diagnosis. But there are a few uncontrollable biological characteristics such as the histological nature, growth type and age that also might influence the prognosis. In this paper one of these uncontrollable factors — the age, has been studied in relation to the prognosis of the treated cases of carcinoma of the corpus and the cervix that occurred in Chittaranjan Cancer Hospital, Calcutta.

Fully realising the difficulties and possible fallacies in coming to conclusion on this fundamental point involving the biological aspect of the disease, 67 cases of carcinoma of the body and 957 cases of carcinoma cervix, 163 belonging to stage I, 260 to stage II and 534 to stage III, have been analysed. Out of all cases treated during the period of study, 10 per

cent of the material was lost sight of and has been excluded. A period of 10 years was taken to constitute each age group, the last group included cases of 61 years or above.

Data

Comparison of the two series of cases under review with 2227 cases of consecutive cervical carcinoma and 100 consecutive corpus carcinoma, both treated and untreated and combined together as representing the cancer population, revealed that the proportion of cases by age-groups of this two series is similar to the corresponding control series.

Graph 1 shows that the survival rates according to age group are random in carcinoma cervix, while in corpus carcinoma decreasing survival rates are noticed in higher age groups. Since the number of cases of corpus carcinoma was very small, a further analysis was not done. But when 957 cases of cervical carcinoma were subdivided according to the clinical stages, a different picture was revealed.

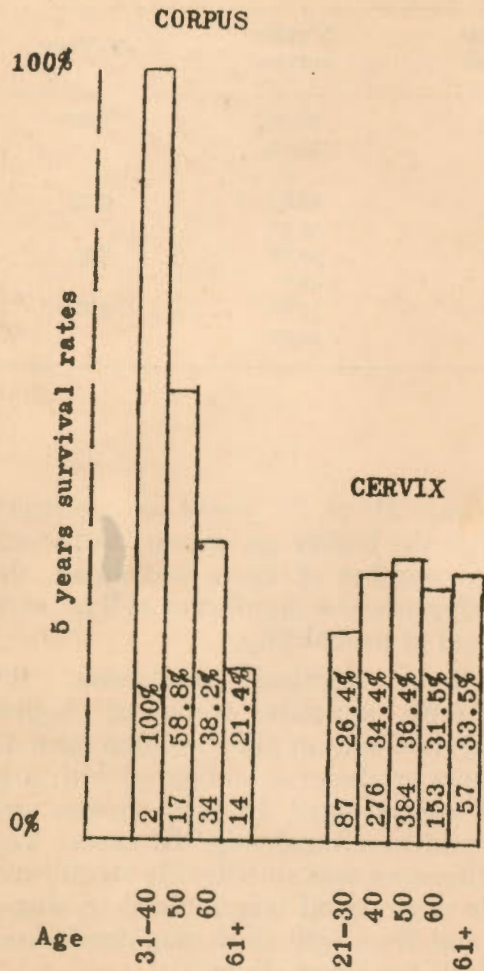
In Graph 2, amongst stage III cases, a definite trend of increased chances of survival with advancement of age is seen. Thus the 5 year

*Visiting Surgeon.

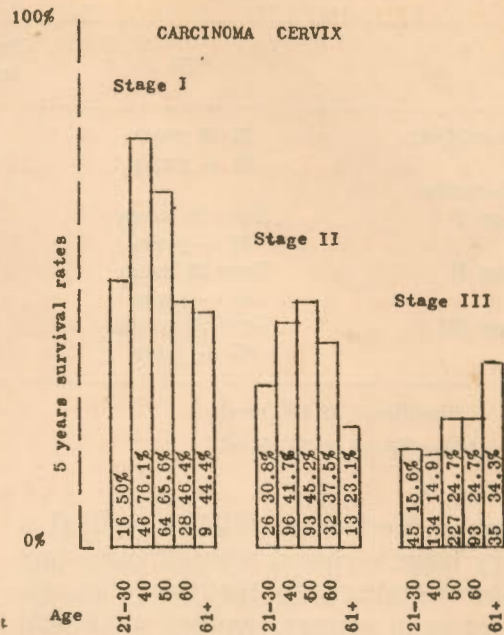
**Statistician, Chittaranjan Cancer Hospital, Calcutta.

Received for publication on 26-8-64.

Graph 1



Graph 2



cases (591 cases) were analysed in two extreme age-groups — up to 35 years of age and 45 years onward. The corpus carcinoma series (67 cases) was also subdivided into two age groups — 31 to 50 years and above 50 years of age. The results were evaluated statistically. The Table shows that the 't' value is significant (2.93) only in Stage III carcinoma cervix and at 1 per cent level of probability. In corpus carcinoma, the difference is significant at 5 per cent level, that 't' value being 2.29.

Comments

Not many studies have been made on this subject. Costolow and Nolan (1951) who analysed 522 cases of cervical carcinoma did not find any difference that was statistically signi-

cure rate amongst women above 60 years of age (34.4 per cent) was more than twice that of the age-group 21-30 years (15.6 per cent). This is in spite of the expectation that the chances of death from intercurrent diseases are greater in older women. Curiously enough, no such correlation is found in the other two stages.

In order to bring out the difference more clearly the cervical carcinoma

* Surgery was done.

TABLE I

	Age	Number treated	5 years' survival	't' Value
CA-carpus:	31-50 years	19	63.3%	2.29*
	51 + years	48	33.3%	
CA-cervix: Stage I	Upto 35 years	33	63.6%	0.52
	45 + years	72	58.3%	
Stage II	Upto 35 years	63	39.7%	0.93
	45 + years	81	49.4%	
Stage III	Upto 35 years	94	12.8%	2.93**
	45 + years	248	25.8%	

* Significant at 5% level.

** Significant at 1% level.

ficant. Kottmeier (1953) studied a very large series of treated cases and showed statistically that the prognosis is worse in younger women in clinical stages II and III, but only after correcting his figures for the increasing chances of death due to intercurrent diseases in older women by commonly accepted statistical formulas. There was no significant difference in stage I cervical carcinoma. In our series, even without making similar correction for death from intercurrent disease, the difference in survival rates of the two extreme age groups was highly significant in stage III. In corpus carcinoma, the opposite trend, of a higher survival rate in younger women was noted.

Summary and Conclusion

Study of 957 cervical carcinomas and 67 corpus carcinomas, treated and followed up at the Chittaranjan Cancer Hospital, showed that:

1. In corpus carcinoma, the chances of survival was better in the age

group 31 to 50 years as compared with the higher age group. Although the number of cases was small, the difference was significant at 5 per cent level of probability.

2. In cervical carcinoma, the exactly opposite trend of higher survival rate in older women aged 45 years or above as compared with that of women aged 35 years or less was found in clinical stage III cases. The difference was statistically significant. No such trend was noticed in stages I and II as well as in combined cases of all the three stages.

It is very important to stress that in a study of this nature that involves fundamental biological characteristics, it is desirable that a very large number of cases are analysed before coming to any definite conclusion; moreover, the significance of the peculiar trend, as revealed in our study, needs clarification before the statistical conclusion is accepted. A further study on these points is now in progress.

Acknowledgment

Thanks are due to Dr. T. K Ghosh, Superintendent and Head of the Gynaecological Department of the Chittaranjan Cancer Hospital for the permission to publish the hospital records and also for the encouragement and help we received from him as well as from Dr. D. K. Roy.

References

1. Costolow, W. E. and Nolan, J. F.:
Am. J. Obst. Gynec. 61: 548, 1951.
2. Kottmeier, H. L.: Carcinoma of
the Female Genitalia Baltimore,
1953, The Williams & Wilkins Co.,
p. 140.