# SOCIO-ECONOMIC PROFILE OF CERVICAL DYSPLASIA AMONG MANIPURI WOMEN

**(A Preliminary Report on Research of Cancer Cervix in Manipur—a Project Under I.C.M.R. Grant)**

by

Y. Lakshimai Devi
N. Nabakishore Singh
Y. Mohan Singh
Subadani Devi
and
Jatiswar Singh

## SUMMARY

**All the parameters, we have studied showed importance in conformity with earlier observation. The social and sex habits of the people might have some contributing factors on the incidence of the cancer cervix. This needs further study as most of the cases with dysplastic smears gave the history of having multiple sex partner and mixed sex habits, having a low socio-economic status (per capita income below Rs. 100 per month). The overall incidence of dysplasia was 6.2% and that of invasive lesion 3.1%.**

An apparently high incidence of cancer-cervix had been recorded in the hospitals of this State, which has stimulated the present workers to study the epidemiology of cervical dysplasia with the grant from the I.C.M.R. The present paper is a preliminary report on the subject.

*Introduction*

The present study aims at detecting and recognising the high-risk women for cervical cancer with special reference to social habits and customs in Manipur. A large number of studies have already been conducted by many workers on the epidemiology of cancer cervix of other places and we could now define high-risk women. The fact that epithelial changes at the site preceeds invasive carcinoma of the cervix and availability of cytologic technique for the study of such changes have made the preventive measures of the disease universally accepted. We have tried to study and analyse the socio-economic profile of this desease for the State of Manipur and also the influence of customs prevailing in this State on its incidence.

*Material and Methods*

From October 1980 to August 1981, we examined and screened 1000 cases in 2

*From: Regional Medical College, Imphal (Manipur).*
*Accepted for publication on* 10-2-83.

groups for this study. Seven hundred seventy women have been randomly selected from among those attending our Gynec. O.P.D. The first 10 to 15 new cases attending our O.P.D. days were randomly chosen for this study. All of them have been interviewed and the questionarre in the proforma specially prepared from this project completed. These cases had cervical smears examined. Another 230 pregnant cases having vaginal discharge were further subjected to posterior pool smear, saline drop slide examination and culture of the vaginal swab. The youngest was 17 years and oldest 72 years of age. The data collected have been varified and confirmed by home visits in 350 samples. Smear for cytological study was collected by using Ayre's wooden spatula from the cervix in the first group and from the posterior fornix in the second group. The smear was stained and classified according to Papanicoloau's technique.

Subjects with dysplastic and malignant cells and also all the cases who had smear or biopsy were selected for detail analysis of their socio-economic profile on the basis of—(a) age at marriage, (b) number of years of married life, (c) gravidity, (d) presence of other factors such as—infection (trichomonas, moniliasis or non-specific), use of loop or, Cu-T, veneral disease, malnutrition, diabetes, vita dificiency, hormone deficiency, genital organ displacements and trauma, (e) pregnancy, (f) socio-economic status at present and at marriage, (g) type of family, (h) educational standard and profession, (i) dwelling house, environment and hygiene, (j) history of any vaginal operation (obstetric/gynaecological) and other relevant factors like—number of husbands or wives (marriage or illicit) and resumption of sex life after delivery or abortion. These cases had routine biopsy as well. We laid stress on the sex habits such as number of union per day/week/month, relation to menstrual cycle and also the sex hygiene observed by the couple.

*Results*

There were 58 (7.5%) dysplastic smears, 31 (4%) invasive cases as confirmed by biopsy and 281 (36.49%) inflammatory lesions, in the first group and 4 (1.74%) dysplastic, 30 infection and 33 inflammatory smears were detected in the second group. Out of the dysplastic smears, there were 28 mild, 23 moderate and 11 severe types. The percentage distribution and relationship of dysplasia to age at marriage is shown in Table I. Sexual exposure at an early age is an important factor and we found 64.3% of these cases (dysplasic and frank invasive) had their first sex experience at 18 years or below. When we analyse the cases on the basis of number of years of married life, an even distribution of the cases is observed as seen in Table II, but an increasing trend of incidence of dysplasia could be noted upto para sixth, with a gradual fall upto gravida ten and above as shown in Table III. No case of moderate and severe dysplasia was found among nulliparous group. Among the dysplasic subjects, there were 25 cases with non-specific chronic cervicitis, 28 with pregnancy, 4 after tubectomy, 1 with loop as shown in Table IV, 17 cases had second degree utero-vaginal prolapse with history of difficult labours during delivery. Out of the 62 dysplastic cases, 56 were illiterate and belong to low socio-economic status having poor unhygenic dwelling houses with estimated per capita income of Rs. 50 to 80 per month. Of the remaining, 4 were literate belonging to middle socio-economic group and only 2

TABLE I
*Distribution of Cases According to Age at Marriage*

| Dysplasia | 10-15 years | 16-18 years | 19 years and above | Un-married | Total |
|---|---|---|---|---|---|
| Mild | 7 | 8 | 13 | — | 28 |
| Moderate | 6 | 11 | 6 | — | 23 |
| Severe | 2 | 7 | 2 | — | 11 |
| Total | 15 | 26 | 21 | — | 62 |
| Percentage (dysplastic) | 24.19% | 41.93% | 33.87% | — | 100% |
| Age at marriage of the whole series | 63 | 375 | 326 | 6 | 770 |
| Percentage | 8.18 | 48.70 | 42.34 | 0.78 | 100 |

TABLE II
*Distribution of Dysplasia on the Basis of Number of Years of Married Life*

| Dysplasia | 10 years | 20 years | 30 years | 40 years | 50 years | Unmarried |
|---|---|---|---|---|---|---|
| Mild | 14 | 5 | 8 | 1 | — | — |
| Moderate | 7 | 4 | 7 | 4 | 1 | — |
| Severe | 1 | 6 | 4 | — | — | — |
| Total | 22 | 15 | 19 | 5 | 1 | — |
| Percentage (dysplastic) | 35.48 | 24.19 | 30.64 | 8.06 | 1.61 | — |
| For the whole series | 293 | 272 | 141 | 35 | 23 | 6 |
| Percentage | 38.05 | 35.33 | 18.31 | 4.55 | 2.99 | 0.78 |

TABLE III
*Graviditywise Distribution of Dysplasia*

| Dysplasia | Gravida | | | | | Unmarried |
|---|---|---|---|---|---|---|
| | 0 | I-III | IV-VI | VII-IX | X | |
| Mild | 3 | 8 | 7 | 9 | 1 | — |
| Moderate | 0 | 9 | 9 | 2 | 3 | — |
| Severe | 0 | 2 | 6 | 3 | 0 | — |
| Total | 3 | 19 | 22 | 14 | 4 | — |
| Percentage (dysplastic) | 4.83 | 30.64 | 35.48 | 22.58 | 6.45 | — |
| Gravidity of the whole series | 91 | 239 | 289 | 110 | 35 | 6 |
| Percentage | 11.82 | 31.03 | 37.53 | 14.28 | 4.54 | 0.78 |

TABLE IV
*Presence of Other Factors in Cases of Dysplasia*

| Dysplasia | Erosion | Infection | Loop | Pregnancy | Tubectomy | Healing |
|---|---|---|---|---|---|---|
| Mild | 3 | 20 | 0 | 12 | 3 | 3 |
| Moderate | 4 | 5 | 1 | 14 | 1 | 1 |
| Severe | 1 | — | — | 2 | — | — |
| Total | 8 | 25 | 1 | 28 | 4 | 4 |
| Percentage (dysplastic) | 12.9 | 40.32 | 1.61 | 45.16 | 6.45 | 6.45 |
| Whole series | 26 | 281 | 9 | 132 | 21 | 301 |
| Percentage | 3.37 | 35.49 | 1.16 | 17.14 | 2.73 | 39.04 |

belonged to high socio-economic class maintaining satisfactory hygienic surroundings. Multiple sex relation (27.6%) either by the wife or husband or both with early experience of sex was observed in 16 cases of dysplastic subjects. Nine cases were second wife (1st marriage for her) and 7 cases had second marriage.

All the 31 invasive cases were married and parous. Among them, 14 belong to urban, 17 to rural, Twenty-eight were Hindus and 3 Tribals. There were 8 cases with multiple sex relations (5 of the husband and 3 of the wife). The average per capita income of these cases were Rs. 65 per month.

The post pool smears of 230 pregnant women screened seperately in the antenatal clinic show 4 (1.74%) dysplastic, 33 inflammatory and the rest shown normal pregnancy pattern. Only in 28 cases, trichomonas infection and was detected in 2 monilial infection. When the groups are analysed together, 62 dysplastic cases were detected an incidence of 6.2%.

*Discussions*

Manipur is a north-eastern State of India, with ninety per cent hills and ten per cent valley, having a total population of 1.43369 million. The entire population is composed of three distinct groups—Hindus, Tribals and Muslims. Each observes seperate social habits and customs. The State apparently show a high prevalence of cervical cancer but no epidemiological study of the disease was carried out earlier.

To determine incidence of the disease and assess the involvement of social customs and habits in the population need further study covering the entire cross-section of the people. The population show certain social customs and sex habits which are not usually seen elsewere. Polygamy and re-marriages (as well as multiple sex relations of males) are in vague among low and few middle scocio-economic groups of people even trough this is not appreciated in the society. We have analysed all the dysplastic, invasive and control cases considering the parameters mentioned earlier, based on scoring method devised by Maya Lulla *et al* (1980) as seen in Table V, but we could not conclude and detect any appreciable contribution and correlation of these factors at this stage as the target is yet to complete. This is true

TABLE V

*Scores as Devised by Maya Lulla et al (1980) and Distribution of Dysplasia*

| Dysplasia | A 1-3 | B 4-6 | C 7-10 | D 0 | Total | Percentage |
|---|---|---|---|---|---|---|
| Mild | 15 | 13 | 0 | — | 28 | |
| Moderate | 9 | 12 | 2 | — | 23 | |
| Severe | 3 | 5 | 3 | — | 11 | |
| Total | 27 | 30 | 5 | — | 62 | 6.2 |
| Cancer invasive | 2 | 19 | 10 | — | 31 | 3.1 |
| Whole series | 404 | 188 | 36 | 142 | 770 | |
| Percentage | 52.46 | 24.41 | 4.67 | 18.44 | 100 | |

for the variables also, which were considered significant by Rotkin (1977), except age at marriage (first sex experience), gravidity and socio-economic status of the cases. Mishra and Harish (1979) recorded 6.6% with erosion and cervicitis and 80% with erosion and hypertrophy of cervix. Emoron (1977) found 88% of cervical cancers to have their first sex experience below the age of 18 years but in this study, 30 (96.77%) invasive cases married at 17 years or below.

The incidence of dysplasia (all grades) in this series was 6.2% and this is still high when compared to those reports of Bilques *et al* (1980) 2.5%, Chakravarty *et al* (1976) 4.5% and Lulla *et al* (1980) 2.8%. But Agnesamma Jacob *et al* (1979) reported an incidence of 20.93%. There is no appreciable difference in the incidence of dysplasia among the three different groups of people in this State.

*Acknowledgement*

We are grateful to the Principal, Regional Medical College, Imphal for providing all possible facilities in conducting this present project and I.C.M.R. for the financial grant to meet the remuneration of one Sr. Research Fellow.

*References*

1. Agenesamma, Jacob, Amma, N., Devi, S. and Mathew, K. T.: J. Obstet. Gynaec. India. **29**: 1206, 1979.
2. Bilques, J., Kachroo, S., Khanam, W. and Dhar, G.: J. Obstet. Gynaec. India. **30**: 536, 1980.
3. Chakravarty, B. N., Poddar, D. L. Sarkar, S. K. and Das, N.: J. Obstet Gynaec. India. **26**: 870, 1976.
4. Emoron, A. C.: Quoted by Reference 5
5. Lulla, M., Garud, M. and Saraiya, U.: J Obstet. Gynaec. India. **30**: 359, 1980.
6. Mishra, J. and Das, H.: J. Obstet. Gynaec. India. **29**: 668, 1979.
7. Rotkin, J. D.: Quoted by Reference 5.