

Study of the Occurrence of Cancer Cervix and Health Status of Women in Rural India, Andhra Pradesh

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Abstracts: Tribal areas are one of the most exploited and deprived sections of the population in the Indian society. In all indicators of development, they remain the most excluded despite the fact that various kinds of policies, programmes and NGOs which have been pursued for their development in the new India. Many studies have needlessly said that exclusion from development has adversely affected the quality of life of the tribal people in multiple aspects; with Tribal women having no exception. But here in this paper we would proudly present -the analysis of women health that belonged to the tribal group from araku valley, Andhra Pradesh, India. In order to do this, various components like social and cultural practices and patterns of work was studied and found to have a strong impact on the population. In the course of the study the key situates for a healthy woman was attributed to be the low parity states, good nutrition and method of contraceptive (predominantly vasectomy) followed. The main highlight of the study is that efforts made to improve the life of the tribal population through various development programmes, out of which fertility control has had an optimal outcome.

Keywords: cancer cervix; tubectomy; fertility

1. Introduction

India is only second to Africa in terms of tribal mass. Approximately 635 tribal groups and subgroups including 73 primitive tribes live in India Represent about 8.2% of India's population. Maximum tribal population concentrated in North East India (highest in Mizoram: 94%) followed by Central India (highest in Chhattisgarh: 31%) and lowest proportion in South India. Multifactorial challenges have been found to influence the health status of this tribal population of 'The Araku Valley' which is a Hill station in Visakhapatnam district in the state of Andhra Pradesh in India.

Cervical cancer, the third most common cancer among women in the world, was responsible for 275,000 deaths in 2008, 88 per cent of which occurred in developing countries and 159,800 in Asia⁽¹⁾. One in every five women in the world suffering from cervical cancer reside in India which has the largest burden of cervical cancer in the world⁽²⁾. The disease consumes resources at a staggering rate in the way of medical, non-medical spending and loss of productivity⁽³⁾. Although cervical cancer is the most frequently diagnosed cancer in Indian women, age-adjusted incidence rates vary from 8.8 per 100,000 women population in Thiruvananthapuram to 22.5 per 100,000 women population in Aizwal⁽⁴⁾.

There is a possibility to prevent deaths due to cervical cancer through various strategies in women greater than 30 years for screening and treatment⁽⁵⁾. The introduction of Papanicolaou test has led to remarkable reduction in mortality and morbidity in developed countries where proportion of women who are screened by Pap test vary from 68 to 84 per cent⁽⁶⁻⁸⁾. Despite existence of national guidelines the screening coverage in India is appalling and is mainly attributed to inequality between infrastructure,

resources and oversized population⁽²⁾. As a result, very often diagnosis of cervical cancer is based on opportunistic screening or after the onset of symptoms. Even though data from the 20 populations based cancer registries in India indicate a steady reduction in cervical cancer incidence rates over the last two decades, it still occupies the number two position and the risk of disease still remains high⁽⁴⁾. These registries are mostly from the urban and in the rural cancer registry in Barshi the risk of cancer of cervix was considerably high compared to urban Mumbai registry and it accounted for half the cancer burden⁽⁹⁾.

Early age of marriage, of first sexual activity and multiparity are few of the top causes of cancer cervix. This study which was conducted in a tribal population portrays how the limitation of fertility and limitation of extension of the family had a better impact on the total well being of women in this population. A positive fact to be highlighted in this study is 60 of 67 husbands of these women underwent vasectomy.

Even though World-wide accepted method of female sterilization needs to be compared with Vasectomy, a simple, safe and effective method of family planning. However, the use of female sterilization is much higher than vasectomy in India with its prevalence exceeding that of Vasectomy by a factor of 37 to 1 with a current rate of 4.4%^(10, 11). From the National family planning program inception in the 1950s through the mid-1970s, vasectomy played a dominant role. Vasectomy was very popular method of sterilization during 1956 and 1980 in India with 65% of cases adopting Vasectomy⁽¹²⁾

2. Materials and Methods

In the tribal population of araku valley women between the age group of 15 to 70 were screened for the common health problems like anaemia, skin condition, vision disturbance, blood pressure, menstrual problem, cancer cervix. 100 women were enrolled in the screening program. All women worked in the coffee estate. After a complete head to toe examination to clinically detect conditions like anaemia, skin disorders, vision disturbance, thyroid swelling, breast lump, genital ulcers, Hb was estimated using Sahli Haemoglobinometer, a random blood sugar was estimated and blood pressure was measured. A complete systemic examination was done to rule out gross cardiovascular, respiratory, central nervous system and abdominal pathology.

Following which a per speculum examination was performed to rule out gross abnormalities was ended by a visual inspection of the cervix with acetic acid. Women were then classified into true positive, true negative and suspicious for carcinoma after VIA. Women who had true positive results were then subjected to a PAP smear.

3. Results

Table 1: Sociodemographic Profile of Females Attending the Camp

Characteristics	No of patients (n = 100)
Age (years)	
15 – 24	40
25 – 34	36
35 – 44	18
45 – 54	4
55 – 65	2
> 65	4
Educational status	
Illiterate	72
Primary	20
Matric	6
Senior secondary	2
Parity	
Nil	10
1	23
2	52
3	15

Majority (94%) of the women attending the camp were in the reproductive age group (15-44 years) and illiterate (72%). It was observed that 23% of women had at least one child. Most (90%) of the women attending the camp had a family income of more than 1000 rupees per month [Table 1].

Data in Table 2 shows that women who had had 2 pregnancies comprised 52% of the study population. Majority of the subjects who had 2 children with most of them (43 %) having the first child between the ages of 18-25 years. None of the subjects had a history of abortions/MTPs. 56 % had their first sexual experience within 13-20 years. Women with the practice of tobacco chewing were found in 21%. There was no family or personal history of cervical cancer or STDs.

Table 2: Frequency and Percentage Distribution Of Biological Variables

Sample characteristics	Num of patients
Number of pregnancy	(n = 100)
Nil	10
1	23
2	52
3	15
Age of first child	(n =90)
<18	24
18 – 25	43
26 – 35	22
>35	1
Age of first sexual experience	(n = 90)
13 – 20	34
21 - 32	56
History of tobacco chewing	(n = 100)
Yes	21
No	79

Table 3: Anemia Status

Grades	Number Of Patients
NO ANEMIA	54
MILD ANEMIA	33
MODERATE ANEMIA	3
SEVERE ANEMIA	NIL

Of the 100 women who underwent screening a positive result was obtained, 54% of the women were detected to have no anemia. This result leads us to probe into the nutrition diet of these women and found it to be appropriate in calories and proteins.

Table 4: Family Planning Method

Method of contraceptive	Temporary method	Tubectomy	Vasectomy
Number of patients (n = 67)	Nil	7	60

89.5% of the men had undergone vasectomy in the PAC, out of which 54 (80.5%) was after the second child. On a detailed investigation in the PAC it was found that the practice of vasectomy was followed from the past 60 years.

Table 5: VIA

Result obtained	True positive	True negative	Suspicious for malignancy
Number of patients (n = 90)	10	80	Nil

Of the 10 women who has a true positive results were all subjected to a PAP smear and found that 5 women were diagnosed with normal smear, 3with ASCUS, 2 with LSIL and on performing colposcopy non of them had invasive carcinoma.

4. Discussion

High parity has long been suspected of being associated with an increased risk of cervical cancer, but previous analyses of this association have not taken the strong effect of human papillomavirus (HPV) into account. Study by Munoz et al assessed the role of reproductive factors in the progression from HPV infection to cancer, analysis

was conducted which including only HPV-positive women found to be directly association between the number of full-term pregnancies and squamous-cell cancer risk⁽¹³⁾. It is a known fact that the knowledge of cervical cancer prevention is very poor in developing nations because of poor education and deficient awareness programs. Women in our study mostly worked for 6 – 8 hours per day in the coffee estate. Men in the community have a lot of consideration towards women and encouraged women in limiting parity by undergoing elective tubectomy.

In our study we found that majority of the women had a very good understanding about the various benefits of limitation of recurrent pregnancy, the various symptoms of cancer cervix and requirement of regular PAC visit in case of any harmful symptoms were present. With a very good family support women with any of the warning symptoms visited the PAC immediately and also had a regular follow up.

A limitation of the study may be the potential for information bias, which exists, in the accurate disclosure of personal information. We attempted to minimize this bias by ensuring participant confidentiality.

5. Conclusion

Undergoing an early sterilization and thereby limiting fertility is a crucial factor in the preventing invasive cervical carcinoma and having a better life expectancy. There is need for organized education programs to create awareness about cervical cancer and benefits in limitation of recurrent pregnancy in rural population of India. A result obtained in the study stands as a perfect example for the need of regular screening of cancer cervix and limitation of parity mostly in the rural India.

References

- [1] Ferlay J, Shin HR, Bray F, Forman D, Mathers C, Parkin DM. Estimates of worldwide burden of Cancer in 2008: GLOBOCAN 2008. *Int J Cancer* 2010; 127: 2893-917.
- [2] Government of India - World Health Organization Collaboration Programme 2004-2005. Guidelines for cervical cancer screening programme; 2006.
- [3] Breakway: The global burden of cancer - Challenges and opportunities. A report from the Economist Intelligence Unit; 2009.
- [4] National Cancer Registry Programme. Three year report of population based cancer registries 2006-2008. New Delhi: ICMR; 2010.
- [5] Goldie SJ, Gaffikin L, Goldhaber-Fiebert JD, Gordillo-Tobar A, Levin C, Mahe C, et al. Alliance for Cervical Cancer Prevention Cost Working Group. Cost-effectiveness of cervical cancer screening in five developing countries. *N Engl J Med* 2005; 353: 2158-68.
- [6] Harry TK, Felicia MS, Ngugen S. A needs assessment of barriers to cervical cancer screening in Vietnamese American Health Care Providers. *Californian J Health Promotion* 2006; 4: 146-56.
- [7] Nor HO, Matejka R. Challenges to cervical cancer screening in a developing country: The case of Malaysia. *Asia Pacific J Cancer Prev* 2009; 10: 747-52.
- [8] Swan J, Breen N, Coates RJ, Rimer BK, Lee NC. Progress in cancer screening practices in the United States. Results from the 2000 National Health Interview Survey. *Cancer* 2003; 97: 1528-40.
- [9] Kasturi J, Bhagwan MN, Rajendra AB, Nandkumar SP, Ranjit VT, Feroz YK. Rural Cancer Registry at Barshi, Maharashtra and its impact on cancer control. *Natl Med India* 2010; 23: 274-7.
- [10] National Rural Health Mission (2011) Family welfare statistics in India, Statistics Division Ministry of Health and Family Welfare Government of India.
- [11] National Family Welfare statistics in India (2009) Section survey findings (NFHS, DLHS & Facility Survey)-Ministry of Health and Family Welfare, Government of India.
- [12] Ross JA, Huber DH (1983) Acceptance and prevalence of vasectomy in developing countries. *Stud Fam Plann* 14: 67-73.
- [13] Mouoz N et al Role of parity and human papillomavirus in cervical cancer: the IARC multicentric case-control study. *Lancet*. 2002 Mar 30;359(9312):1093-101.