Report on health status of Tribal in Attapadi
by
Pariyaram Medical College medical team

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Team members

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Background

The scheduled tribe population of the state is 364,189 which is 1.14% of its general population (Census, 2001). There are 36 different tribal communities in the state, of which five are primitive tribes. The Western Ghats and its peripheries form the main abode of the tribal people in Kerala. Highest concentration of scheduled tribes is seen in Wayanad district (37.4%), followed by Idukki and Palakkad districts. A total of 72.8% of tribal population is concentrated in six districts: Wayanad, Idukki, Palakkad, Kasaragod, Thiruvananthapuram and Kannur. In Palakkad district, Attapadi is the main abode of the tribal people.

Attapadi block is a valley below the Nilgiri hills of the western ghat in Palakkad district. It includes an area of around 750 sq Km and act as a buffering zone to the Silent valley national park.. The area lies 750 meters above sea level and the main river in the area is Bhavani river which is the one of the four river flowing from Kerala towards Tamilnadu. The area is shared by three panchayats- Sholayur, Pudhur and Agali.

Although the area is known to be one of the tribal heartland in Kerala, major proportion of the population today is constituted by the settlers from other parts of Kerala and Tamilnadu. The population of tribal folks or adivasi has been declining over the years. The area dwells 3 tribal community- Mudugars, Irulars and Kurumbars. Of these Kurumbars is the most remote and leads a primitive life in comparison to others. The total population of all these tribal is around 30000 as per 2001 census. There are a total of 192 tribal hamlets or ooru in the area. Through efforts under various schemes and projects many of these hamlets had undergone transformation from their traditional mud houses in forest to concrete houses in plain. Effort through Attapadi Hill Development project alone had led to constructed around 2000 houses for tribals in the area.

Health system in Attapadi

There are three government primary health centres (PHC) one each in Pudur, Sholayur and Vattulukki and one community health centre (CHC) in Agali. There are 28 sub centres in this 745-km² block. Besides there is a 54 Bedded tribal Speciality hospital in Kootathara set to provide specialist care to tribal people. Around 85 ASHA had been appointed to assess the need of the tribal community and to distribute essential medicines at their doorsteps. There are 172 anganwadis in Attappady to take care of pregnant women and tribal children. There are three Health mobile units providing medical help to the tribal hamlets, especially in the
remote areas. In the private sector the main hospitals include Swami Vivekanandha Mission hospital in Agali and St. Thomas Ashram in Nelippathy provide low cost and sometimes free medical care to tribal.

Attapadi is currently in limelight because of the infant deaths reported among the tribal. In the past 15 months, 35 infant deaths has been reported from the area most of which has been attributed to malnutrition by the media. It has been alleged that, the government machineries in place to avert such situation has failed miserably.

**Method**

To study the situation in Attapadi, Pariyaram Medical college sent a 6 member team of doctors under the leadership of Dr B Eqbal, Chairman Academy of medical Sciences. The team members include Dr K E Urmila (Professor Paediatrics), Dr A K Jayasree (Professor community medicine), Dr Krishnanunni (Retired civil surgeon), Dr Aslesh OP (Assistant professor Community Medicine), Dr Renjith P (Paediatrics). The team reached Palakkad on 18.05.13. On 18.05.13, Dr Iqbal had a meeting with journalists who had reported the situation in Attapadi in media. On 19.05.13, the team visited the tribal hamlets of Nellipathi, Kandiyoor, Kadambara and Bhoothivazhi and met the parents of diseased infants and assessed the situation in the hamlets. The team also interviewed pregnant women, lactating mothers and mother of malnourished child and assessed nutritional status of pregnant women and children. During ooru visit, team also met ASHA volunteers, Anganwadi teachers, Junior Public health nurse and tribal promoters. On 20.05.13, for assessing the health facilities in Attapadi, Kootathara Tribal speciality Hospital and Puthur Primary health center was visited. During the visit the patient care facilities in these centres were assessed and discussion was carried out with the doctors, nurses and other staff members. The team also visited the Puthur panchayat office, Anganwadi centres and ICDS office and met the officials. To have an outlook on private health care in Attapadi, the team visited Swami Vivekananda Mission hospital and met Dr Narayanan. Team also met Mr. Induchoodan (director AHAD) and Mr Ranjedraprasad (Thambu, NGO) during the visit.
Observations

Pregnant women and lactating mothers were found to be suffering from chronic malnutrition and anemia. Premature delivery and low birth weight was seen as the main reason for the infant deaths in the area. The mothers who had premature delivery gave a history of raised blood pressure (pregnancy induced hypertension) and anemia. The factors that can lead to low birth weight or intrauterine growth retardation (IUGR) and childhood malnutrition observed during the visit are as follows

1. Maternal malnutrition: The women in the area are suffering from chronic malnutrition. They do not increase the dietary intake during pregnancy. Nutritional assessment of pregnant women revealed that they ate white rice three times a day along with a curry (known as kuzhambu made with some pulses). Vegetables, fish and egg are taken very rarely. The pregnant women don’t get quality protein through this diet. As per a health worker, the practice of eating less during pregnancy is seen among the tribal for easy delivery of low birth weight baby. Supplementary nutrition through anganwadi is not received by these pregnant women. The official says that the women don’t turn up for the meal, but the pregnant women say they are not aware that such food is distributed by anganwadi. Through Janani Suraksha Yojna, there is provision to distribute Rs 500 to pregnant women for nutrition and other expenses in antenatal period. But, at present women receive this amount only after delivery of live baby as the health worker has been instructed to do so.

2. Anemia: The pregnant women and mothers of diseased infant met by the team were found to be anemic. Though the area had high prevalence of sickle cell anemia among the tribal, iron deficiency is also the major cause of anemia in the pregnant women. These women gave history of frequent confinement and multiple abortions both of which can lead to depleted iron store in the body. Moreover, natives in the area walked bare foot and practices open defecation, thus increasing the chance of hook worm infestation. Previously, the staple food of these tribal was Ragi which is a rich source of iron. But now as natives stopped cultivating these crops and subsist on rice which is low in provided through the ration shops. The dietary change has also led to iron deficiency. Iron supplementation by means of iron folic acid (IFA) has also failed as free distribution tablets through sub centers has stopped from 2009 onwards due to lack of government supplies. Many cases of severe anemia (haemoglobin <7) has
been reported and these require iron injection. Currently the iron injection given is
IMFERON which is given intramuscularly. As these women are already
malnourished, they have low muscle mass making this injection painful and risk of
developing abscess. As multiple such injections are required, the women won’t turn
up the second time for the injection leading to incomplete management of anemia.

3. Pregnancy Induced Hypertension: The medical records of mother of the IUGR infants
who died showed that many had hypertension. Antenatal check up is not regular and
this can lead to non detection of such cases.

4. Indoor air pollution: Although not an important cause, this factor can contribute to the
occurrence of IUGR. Traditional houses of tribal’s, the cooking were done outside.
But after they started to live in concretes houses, they started to cook from kitchen
inside their home. Most of the houses don’t have chiminey, ventilation is minimal and
smokeless chullas were not provided. The only fuel they use is wood, cowdung cakes
and grass. This can lead to indoor air pollution which can lead to IUGR.

5. Alcoholism: Though alcoholism among female can lead to IUGR babies, alcohol
intake among females was not seen in any of the hamlets that we visited. However
male alcoholism was rampant. This can indirectly affect, as money to be spent on
food is directed to buy alcohol.

6. Malabsorption: As per the doctor in Tribal speciality hospital, 2 infant deaths may be
due to malabsorption syndromes as the children were not responding to energy
dense diet.

During the visit to anganwadis, it was found that anganwadi in the tribal areas are not
provided with egg and milk previously. But when these deaths were reported, an order
were issued to provide these by purchasing from local area and reimbursing the amount
later to the anganwadi teacher. This is not an effective measure in difficult to reach area
and can only be considered as a short term measure as low paid anganwadi teacher cannot
buy these items for long if the reimbursement get delayed. Also after this order local
merchant has increased the price of these food items.

During the visit to ICDS office, it was seen that there was only one supervisor instead of
6. The supervisor reported that there are 5691 under 5 children in Attapadi, of them 4111
attend anganwadi. Among these, 300 (7%) were reported as severely malnourished.
Before the deaths were reported, this figure of severely malnourished was only 30 and it was after a rechecking of growth records that the current figure of 300 was estimated. But even then there seems to be under reporting as many of the under 5 children we examined in the visited hamlets were found to be under nourished. For example, the only girl child of a tribal couple in Kundiyoor who lost their neonate few weeks back was found to have a Mid Arm Circumference of 12 cm (less than 12.5 is severe malnutrition). But this child was not receiving any extra care through anganwadi as this child was not detected as malnourished by the system. There are also instance of chronic malnutrition as observed in Bhoothivazhi, a 7 year old child had a height of only 100 cm (height of a 4 year old child). Currently, there is provision to provide food worth only Rs 6 per day to a child and out of this 2/3rd has to be provided by panchayat. To provide food thus Rs 60 lakh had to be provided by the panchayat, but only a fraction of this amount has been released. The addition of milk and egg may stretch the budget more and the current estimate is at 90 lakh for the year 2013-14.

In Kootathara Tribal speciality hospital there is currently 1 gynaecologist appointed through NRHM, one paediatrician, 1 ophthalmologist and 4 assistant surgeons. The 54 bedded hospital has a bed occupancy of 70%. It has a labour room and an NICU with one incubator and one ventilator. The daily outpatient comes to around 300. It has a functional ambulance; the one other is under repair. The following shortcoming has been identified in the hospital

- Lack of anaesthetist which makes Caesarean not possible in the hospital.
- Ultrasound machine with Doppler probe not available.
- No blood storage facility
- The gynaecologist is a Tamil and she lives in Coimbatore, hence not able to attend emergency cases.
- No quarters for the doctors.

Due to these shortcomings the hospital has turned from a centre for referrals to a centre from were complicated cases has to be referred to other places. Even under these dismal conditions, one incentive that attracted young doctors to work in the area was the priority that they get in service quota for post graduate seat as they work in difficult rural area. However, this year that quota has been scraped and this may demotivate the doctors and may worsen the doctor shortage in the area.
The PHC Puthur has a different story to tell. 10 years back this PHC got the state award for best PHC under Dr Prabhudas. Then the PHC had inpatient facility, but now there is no such facility and only outpatient service is available. The development activities initiated after the award has come to a standstill. The PHC has no delivery facility.

Through the ration shops 25 kilo of *matta* rice is provided to one family per month at cost of 1 per kilo. Pulses are not provided through ration shop. *Matta* rice is not preferred by the tribal and they sell this rice to shops at Rs 4 -5/kg and buy White rice (may get around 2-2.5 kg in exchange).

The non functional status of AHAD from 2010 after stoppage of Japanese fund and lack of work through Employment guarantee scheme, has pushed the tribal to unemployment and poverty. Most of the tribal we met were manual labourers. They get Rs 300 per day for work but work is scarce, only for 4 to 5 days a month. Though many has land, the owner ship is shared by many family members and land is often non cultivable. The tribal has lost over 5000 acres of fertile land to settlers and this land is currently used to cultivate cash crops at present.

The Attapadi area is unofficially under liquor prohibition and liquor shops are not present in the area. However the natives go and buy cheap alcohol from the Tamil Nadu border. Under AHAD, 360 forest watchers were employed to prevent deforestation of whom 280 were tribals. These watchers also destroyed marijuana cultivation and illicit alcohol production. When AHAD became non functional, the watchers lost their jobs and the illicit alcohol production increased considerably. They make these alcohol by adding many harmful substance including battery to make it more potent. It this could not be area is under danger of a liquor tragedy in near future.

The activities of AHAD were mediated through Ooru Vikasana samithis (OVS) which was formed for welfare of the hamlets. Through the developmental activities of AHAD each OVS were able to generate of around Rs 3-4 lakh which can be used for development of hamlet. However, once AHAD has come to a standstill this money cannot be used for any purpose by OVS as it require approval by AHAD.

**Recommendation**

**Short term intervention**

1. There are around 518 pregnant women in Attapadi area. High risk cases like anemia, pregnancy induced hypertension, intrauterine growth retardation etc should be identified immediately by antenatal check up either through sub centres or through
Mobile health units. Appropriate care including inpatient care should be provided to the identified high risk pregnant women.

2. Nutritional rehabilitation centres should be established in CHC and tribal Speciality Hospital. Malnourishment should be detected among pregnant women, lactating women and under five children by utilizing the ICDS machinery. The severe cases of malnutrition should be hospitalized in these centres and managed.

3. Iron folic acid tablets must be provided to pregnant women through sub centres. Also iron sucrose, an intravenous preparation of parenteral iron should be provided to treat severe anemia. If the government supply is getting delayed, efforts should be made to purchase these through local purchase by district health authority.

4. The vacant positions of doctors and other staff in various centres should be filled at the earliest. The vacancy of Anaesthetist should be filled as soon as possible so that Caesarean section could be possible at the Tribal speciality hospital. The senior residents in various speciality currently working in various medical college as a part of compulsory service after post graduation can be posted in the centre on a rotational basis

5. Quarter facility should be provided to the doctors. The 6 quarters at Agali CHC in which electricity supply was cut due to non settlement of bills should be made available to doctors.

6. The tribal speciality hospital should be provided with blood storage facility and ultrasound machine with doppler probe.

7. The staple food of tribal people like ragi and maze should be distributed through the ration shops instead of rice. Also pulses should also be distributed to meet the protein requirement. Through the anganwadi, ragi based preparation should be distributed to under 5 children instead of the current wheat based Amritham powder.

8. The employment guarantee scheme should be restarted to ensure employment to tribal. Also, compensation should be provided for the period through which it was inactive.

9. Retraining of ASHA volunteers, Anganwadi worker and tribal promoters regarding Maternal and child care should be undertaken. Also efforts should be made to integrate their activities.

10. The works of anganwadi need to be strengthened. The vacant supervisory post need to be filled and supervisors should be provided vehicles for field inspection. New
anganwadi should be started in 20 hamlets which don’t have one at present. Required fund for proper distribution of food should be allotted by the government via panchayat. Prompt reimbursement to anganwadi teachers for the food purchased.

11. Permission should be granted to use the fund available with Ooru Vikasana samithis to utilize in emergency situation.

12. Appointment of an efficient IAS rank officer to integrate activities of various departments.

13. A comprehensive nutritional survey should be carried out to assess the nutritional status of under 5 children, adolescent girls and pregnant women should be carried out by an external agency like Achutha Menon Centre for health science. Also a scientific study of all infant deaths in past one year should be done in order to plan proper intervention.

**Long term interventions**

1. The permanent solution to problems of tribal is to enable them to cultivate the land they own with their traditional crops. In order to achieve this, an approach which combine the plus points of their traditional method of cultivation and modern agricultural technique which is acceptable to the natives need to be adopted.

2. Kootathara tribal speciality hospital should be developed into a Tribal medical college with the aim to train doctors to work in tribal areas across Kerala. A fixed number of seats should be reserved to tribal students in this institute and the government should bear cost of their education. The students passing out should work in the tribal area for fixed number of years.

3. AHAD should be provided with necessary funds and its activities should be restarted for carrying out the developmental activities in the region.

4. Attapadi should be made into a taluk to improve the administration efficiency.