## Anaemia in young girls: the silent killer of the Central Himalayas

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We are documentary film-makers who have been working on the life and art of a nonagenarian folklorist and performer of the mountain state of Uttarakhand, North India since 2002.

Our location is Village Dhungatoli, located on the left bank of the River Mahakali, on the eastern end of the state. The river also forms the natural border between India and Nepal. There are 100 households in Dhungatoli spread over the twin villages of Dhunga and Toli, with a total population of approximately 1,000, a considerable number of whom are of Nepali origin, as is the case with mountain villages all along the Mahakali.

While working on our films, we had the chance to closely observe life in this corner of the world. What struck us was that girls and women in villages, on both sides of the river, form the majority of the ill population. Their lives are lived in unsanitary, unhygienic and unhealthy surroundings (for example, living spaces heavy with smoke from primitive indoor cooking-fires). Ignorance is compounded by the lack of access to information that could lighten their hardship. The situation is worsened by the difficult terrain, a degraded environment, where the forests have receded and natural sources of water dried-up, traditions that have become distorted or redundant over the decades, and a severe division of work between male and female that is heavily weighted on the woman's side of the scale. The situation for the female child and teen-age girls is particularly alarming.

We would like to cite three personal experiences that illustrate the prevalent situation for female children and teen-agers.

**Meenu:** When we first met Meenu, she was 18 and stick-thin. Meenu was intent on completing her High School examination and going on for higher studies. We were very

impressed by her determination as the society holds a casual attitude to education for girls.

On our next visit, six months later, we met Meenu again and were shocked to see how ill she was. It took two days of intense pressure to have the family agree to a proper check-up for Meenu at a small but modern hospital, twenty kilometers away. She was diagnosed as having acute infection of the lungs, valvular heart disease and heart failure. Her pulse rate at the time was running at the extremely dangerous rate of 220/minute.

The examining physician informed us that Meenu was the 10<sup>th</sup> such case she had had in the past month! The Doctor also indicated that in all cases the girls had severe chronic anaemia.

For four days, Meenu was put on drips. She was then put on oral medication which was to continue till the time she was able to recover enough to withstand surgery to her heart.

We worked hard with the family trying to make them understand the fundamentals of care for the extremely ill, from monitoring her medication, teaching her family to learn Meenu's prescription and give her, her medicines and food on time.

We even had to intervene as to her immediate surroundings. The family very reluctantly cleaned a room for her, and even more reluctantly supported her weak frame, to and from her room, to an improvised toilet that was not much more than a hole in the ground. After much persuasion, they provided her with some luke-warm water so she could clean herself. The family would not be persuaded to change her bedding regularly or provide her with a change of clothes.

We still hoped that Meenu's parents and grown-up siblings would even now comprehend the delicacy of her condition, and do, as we and the doctor had advised, particularly in regard to her medication. The prescribed medication was neither expensive nor unavailable. (They are by no means an illiterate family, and are financially quite sound.).

Meenu's family's attitude towards us and her illness was not encouraging. Hence, it was only when we checked Meenu's pills that we realised that the family had been misleading us that she was being given her full dose of medicines. In fact, one of her medicines had run out. Their belief was that as she was consuming two out of the three prescribed medicines, she would be alright!

Meenu had herself reminded her family that she had run out of her medicine but they did not care to remember. After that, as we found out later, she felt shy of asking again. Very valuable three days had been lost, for Meenu passed away that night for the want of a medicine that costs a mere three Indian rupees per tablet.

**Nanda:** At the same time that Meenu was taken ill, another girl we knew fell ill. Nanda was a little younger than Meenu, fourteen, or so, and belonged to a poor family, that survives on less than US \$15 a month. We noticed that the girl, the eldest of six siblings virtually carried the burden of the household on her shoulders. On our first visit to Dhungatoli, when we had first seen Nanda, she was the one who washed the entire family's clothes, a total of eight persons, made a daily trip to the forests for grass and fuel wood (this involved a steep one-hour climb, and a sharp descent with a full load of wood on the back), cooked, cleaned, took care of her siblings while her mother nursed her newest child, and most of all, fetched endless gallons of water from a spring half a kilometer away, her household being one of the unfortunate many with no direct connection to water. In addition, she was the family's main farm-hand.

Two years later, when Nanda was sixteen, she was still doing the same amount of work, only this time she panted heavily and had to stop often to catch her breath. It was unpleasant to see such a fine girl so wasted. Just as in the case of Meenu, we tried to persuade her family too, to let us take her to the doctor but to no avail. They put her weakness down to recent fevers. Sensing that we sympathised with her condition, the girl came to us one day in tears. We felt helpless and once again tried to persuade her parents that Nanda be given a thorough check-up. They procrastinated for a fortnight and only agreed when the girl fainted twice, once on her way back from the forest and once while she was transporting a 35 kilogramme sack of rice, on her back, from the government outlet to her house. We were quite sure that the parents had agreed to our intervention not so much because of the girl's condition but because a working-hand would be lost if something serious happened to the girl.

The girl was examined and diagnosed with tuberculosis. Her haemoglobin count was barely 7.5g/dl. She was advised regular intake of medication, including vitamin supplements, complete rest and nutritious food.

This was a jolt for her family as it meant that, a working hand was lost, and that they had a daughter who was not only unwell but who had a serious problem which also carried with it, a social stigma. They did their best to hide her true illness and we played along for the benefit of the girl.

With the example of Meenu, in front of them (they are neigbours), the girl's parents began to realise, although, dimly, that she be put on medication as prescribed. It was clear that they would not and could not buy the medicines on their own, and so we ensured a supply of medicines for the entire year, as prescribed by her doctor.

Slowly, she recovered but her parents did not let her complete the full twelve-month course of medication. Fearing social prejudice, they continued to hide the nature of her illness and married her off in six months. Her illness was hidden from her husband and his family to preserve her marriage, which meant that her medication had to stop.

**Dibbi:** Dibbi is just five. She is a voluble, hyper-active child, sharp as a razor. In December 2006, she contracted a high fever. She became delirious in her sleep and her heart palpitated madly. Her family had experimented with a paracetamol tablet available at the local village shop but it did not work. We decided that it was time to impose ourselves on them.

On the third day, we bundled her up to the same hospital where we had taken Meenu and Nanda three years ago. The examining physician was the same and remembered the previous two cases well. She immediately asked Dibbi's father whether he would agree to a blood-test for his daughter. (In many cases, the doctor informed us, the parents refuse to have a blood-test conducted, even after bringing their daughter to the hospital.). Luckily, Dibbi's father agreed. The test revealed a haemoglobin count of 6.6g/dl.

Dibbi was immediately put on antibiotics for her chest infection and fever, and supplements to counter her anaemia. Dibbi was also to be put on a boosted diet. (While leafy vegetables are readily available, it is not the custom, in these parts, to eat more than a few teaspoons. Fruit, milk, apples and eggs are luxuries.). We tried to drill it into her parents' and grandparents' heads that an improved diet for Dibbi was a practical, available and an achievable alternative to blood transfusions (the nearest hospital where this could be done was a difficult 6 hour drive on a narrow road, on mountainous terrain).

Indeed, the doctor maintained that blood transfusions were recommended for those with a haemoglobin count of less than 7g/dl.

These three examples define the killer circle of haemoglobin deficiency within which, 70%-80% of girls in the area, between the ages of 0-18, are caught, an estimate provided us by the doctor we had consulted in all the three cases. Tests had revealed haemoglobin counts as low as 4.5g/dl in girls between the ages of 2 and 7.

The average female infant in the area is born anaemic, remains anaemic as a child and develops into a teen-ager with haemoglobin deficiency. Almost all girls in the 2-18 agegroup were underweight and underdeveloped and were susceptible to respiratory infections and in some cases heart-related complications. The problem, as the doctor described it, was that very few families bothered to bring their daughters to the hospital. When the girls were brought their illnesses had already taken root.

Approximately 90% of the girls in this society are married between the ages of 14-17. They have early pregnancies with no spacing, and give birth to underweight babies.

The expectant mother is banned from the kitchen after the eighth month of pregnancy (She is considered to be untouchable from that point on, and is only allowed into the kitchen a month after the birth of the baby). However, she is not freed from the more laborious tasks such as climbing steep slopes for wood or wielding the 10 feet pestle, made out of heavy wood that is used to process rice. Her diet is not boosted and remains a combination of 85% rice, 12% lentils and 3% vegetables. Sufficient milk and other sources of proteins and minerals are mostly out of reach. (Ironically, the family cow is given as rich a diet as the family can afford when it births.)

At the time of delivery, the young mother is confined to a 'goth' or a small window-less room in which the family's animals are kept at night. Clean bedding for the mother and child is not available. The mother usually sleeps on a bed of rice straw. While this serves as an adequate mattress, the problem is that the straw is not replaced every day.

The child is delivered in a most primitive way. It is not unusual for the mother to tie a thread around the umbilical cord and cut it off with a razor blade. The concession to hygiene is that the razor blade is new!

The mother has no helper for another 11 days or till the child's naming ceremony. During this period of eleven days, she has limited access to water as she is not allowed near a water source, and meagre access to the sun and fresh air. These unhygienic conditions imply that the baby starts its life with circumstances weightily arranged against her. The problem is further compounded by the inflexible mind-set of the males and elders of the house (as illustrated by our experience in the case of Meenu, Nanda and Dibbi) which rejects anything that is not part of their experience. They tend to believe that as their mothers and grandmothers went through the same arduous life, the present generation should also be able to do the same and survive. The death of a girl-child is mourned but not considered to be a great loss!

This situation is largely preventable and curable. Even the high occurrence of respiratory infections and cardiac problems, in this part of Kumaon, can be reduced substantially if the girl-child and the young mother are free from anaemia.

Keeping all the above in mind, it is essential that:

- 1. The exact nature and magnitude of the health problems of girls, between the ages of 0-18, be accurately assessed.
- 2. Relevant medical information about their bodies and its functioning percolate to mothers and teen-age girls.
- 3. The particular features of life in the mountains, and its impact on the health of mountain women, especially the girl-child, be identified. The degraded environment of Dhungatoli, for example, means that women have to work that much harder to sustain their families. Longer and longer trips are made for wood and water with each passing year. The lack of water means that bathing is occasional. Clothes are washed when they are so dirty they cannot be worn, as they are, any more.
- 4. The social and cultural environment be closely studied so as to frame appropriate health initiatives for girls.
- 5. Appropriate methods of information dissemination, be determined for the decision-making population of males and elders, for the betterment of their daughters.

We would like to conduct a door-to-door micro-study of village Dhungatoli, as it is representative of the area along the Mahakali when it comes to the lives of the female child and adolescent. We feel that our familiarity with the people of the village and the

trust we have gained, puts us in a position whereby we can assess the situation accurately.

Our study-project would focus on girls from the ages of 0-18.

The project would:

- Create a 'health-map' of the population of girls between the ages of 0-18.
- Determine the particular difficulties of mountain life in Dhungatoli that mould the lives of girls between the ages of 0-18.
- Identify the social and cultural taboos, habits and behavioural patterns of this culture that impede the baby girl from developing into a healthy young woman.
- Examine the nature of appropriate information material, such as posters and short films that may be used in a corrective information-dissemination programme.

We believe that the results of such a study would be useful in developing initiatives that create a 'check-valve' that would lower the incidence of anaemia, prevent/limit susceptibility to respiratory infections and cardiac problems, and perhaps succeed in changing the harsh facts of life for the female child and teen-ager in this part of the Central Himalayas.

We invite comments, suggestions and sponsorship/partnerships for this project. We would also be most appreciative of voluntary services by medical professionals, medical supplies and equipment from the simplest to the more sophisticated, and donations of basic office equipment to conduct the field study.