Heal and Hearing Trek

Humla (2 –12 October 2017)

Ear Care Nepal/ Nepal-Schulprojekt/ Himalayan Children's Society

October 2017

"Heal and Hearing Trek", Humla

2nd - 12th October 2017

Ear Care Nepal

1. Background:

Since its establishment in 2013, Ear Care Nepal "ECN" has been performing various activities in rural parts of Nepal to serve the communities, most vulnerable to ear diseases and deafness. 'Heal and Hearing Trek' program is one of its type to fulfill its main purpose "Prevention of hearing loss among economically disadvantaged school-age children in Nepal and to promote hearing through provision of ear care education, ear screening and ear surgeries".

A team consisting of ENT Surgeon, Audiometric technician, Community Ear Assistant "CEA" and supporting staffs trek to remote Himalayan regions of Nepal to screen children from community schools and Buddhist monastic schools. They perform an ear screening program which consists of screening of school children for ear diseases/ hearing loss, detail audiological evaluation of the children with suspected hearing loss, delivery of primary ear care education to children/ teachers/ guardians on prevention of deafness, on-site treatment of common ear disease, distribution of medicines and education materials. Ear Care Nepal has been conducting two mobile ear screening programs annually. This is an essential part of the preventive ear health program in rural parts. Awareness about ear health, financial status, lack of medical facilities and difficult access to medical care are few factors for very high prevalence of ear diseases and deafness in rural areas of Nepal. Ear diseases which could be prevented or treated at the early stage are often neglected, resulting in deafness and life-long burden to the society. To address this issue, Ear Care Nepal has been successfully conducting Heal and Hearing Ear Health Trek program in rural areas of Nepal.

Humla district is one of the seventy five districts of Nepal and Simikot is its district headquarters. It covers an area of 5,655 km² and has a population of 50,858. The Northern part which borders Tibet is inhibited by Buddhists, whereas the South is mostly inhibited by the Hindus. Humla is considered as one of the most remote and isolated regions of Nepal, reachable only by foot or small aircrafts which is limited to Simikot only. The region is one of the most underdeveloped areas in Nepal with only one hospital and some primary health care centers. Many primary health centers are often without any health workers or medicines. The average altitude of Humla is about 3000m above average mean sea level. Humla is the highest district altitudinal wise in Nepal with most villages lying above 3000m. The climate is harsh with only 1% of arable land causing severe food shortages most of the years.

In Nepal 16.6% has disabling hearing loss, which is alarmingly high among South Asian countries. The most common causes of hearing loss in Nepal is however preventable like discharging ear, use of drugs toxic to ear or use of various traditional herbs inside the ear. Hearing impairment is particularly serious in children because it can result in communication difficulties, delayed educational progress and social isolation, which can lead to lifelong burden in the society. Among all diagnosed with hearing loss in Nepal about 55% are of school going age group, majority of which is due to preventable causes. Also, it is found that children in Buddhist monastery are highly susceptible with exceedingly high likelihood for ear problems than children of other schools and communities - basically due to their previous rural upbringing from where they are selected and brought to monasteries.

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To cater this vital need and to attempt for the prevention of deafness and conservation of hearing at the national level, Ear Care Nepal, a voluntary organization was established in 2013 with an aim of "Prevention of Deafness and Conservation & Promotion of Hearing in Children of Nepal". Since late 2013, ECN has been conducting school based ear health program targeting most vulnerable group of society for ear care service hoping to reduce the lifetime burden of deafness among children. ECN has screened over 37,000 children from 216 community schools and monastic schools and have operated on over 350 children for restoration of hearing. The prevalence of ear diseases causing various level of hearing loss is very high, 8.26% and 10.64% in school children and monastic children respectively.

2. Program Objectives:

- 1. Expand the coverage of ear screening and surgery from current community schools and monastic schools of Kathmandu Valley to larger communities of Nepal
- 2. To achieve our goal "Reach the Unreached". To provide ear health program to children from remote rural areas of Nepal
- 3. To find prevalence of ear diseases and hearing loss in children of rural areas of Nepal
- 4. To provide clinical otolaryngological and audiological services to community school children and Buddhist monastic schools.
- 5. Provide primary ear care education to children, teachers and guardians and sensitize local people about deafness
- 6. Deliver preventive ear care at primary level
- 7. Refer patients with severe ear diseases to Kathmandu or Nepalgunj for surgical treatment

3. Screening Method and Program Activities:

Nepal-Schulprojekt, Himalayan Children's Society and Ear Care Nepal prepared screening program schedule for different schools of Humla. Organizing team listed the names of community schools and Buddhist monastic schools of Humla and the time and date of visits to schools and Buddhist monastic schools were planned with prior meetings with respective school principals.

Screening team consisting of two ENT Surgeons, one Community Ear Assistant, one Audio-technician and two support staffs flew from Kathmandu to Nepalgunj and from Nepalgunj to Simikot in 18 seater light aircraft. Since there are no motorable roads in Humla, screening team trekked from Simikot to Kermi, Yalbang and Hepka to conduct ear health programs in various schools and monasteries. In accordance to the scheduled dates, all the school and monasteries were visited and children screened for ear diseases and deafness.

In each school and monastery, all the children and teachers, and some guardians/parents were screened for any ear diseases and deafness. Detail examination was carried out in the children with ear diseases

and documented. Children with minor ear problems were treated at site. Primary ear care education was delivered to all the school children, teachers and guardians using power point presentations, flip charts, posters and animated booklets. Children who required hearing aids for restoration of hearing were given free hearing aids along with supplementary batteries. Animated booklet on primary ear care and stationary materials were gifted to all the children after ear screening. Other than school children many people from local communities also benefited from our ear screening program. Children with ear diseases and hearing problems who required further treatments were referred to either BRINOS Ear hospital located at Nepalgunj or Nidan hospital in Kathmandu for free surgery by ENT surgeons from Ear Care Nepal team.

4. Program Outcome:

4.1. Total number screened: 1021

- Total number of children screened: 856
- Total number of people from local communities screened: 165

4.2. Total number of schools screened: 11

- Total number of schools screened: 9
- Total number of Buddhist monastic schools screened: 2

4.3. Primary Ear Care Education is delivered to all 856 children, their parents and teachers

4.4. Total number of children with ear problem: 122 (14.25%)

4.5. Total number of children who require ear surgeries for restoration of hearing: 36

4.6. Total number of people from local communities who require ear surgery: 2

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S.N	Name of School	Total number of children screened	Total number of children with ear problem	% of children with ear problem	Total number of children requiring ear surgery
1	Shree Mahabaudha Higher School, Yalbang	265	38	14.34%	7
2	Shree Tatopani Primary School, Kermi	73	1	1.37%	0
3	Shree Buddha Primary School, Namkha- 1, Hepka	85	13	15.29%	5
4	Shree Bhimsen Basic Level School, Simikot	98	6	6.12%	1
5	Mansarowar Model Secondary School, Simikot	70	11	15.71%	6
6	Kalashilta Primary School, Simikot	99	9	9.09%	3
7	Kailash Bodhi School, Simikot	29	5	17.24%	4
8	Himali Model Boarding School, Simikot	29	3	10.34%	1
9	Bal Mandir Secondary School, Simikot	14	6	42.86%	1
10	Namkha Khyung Dzong Monastery, Yalbang	79	23	29.11%	6
11	Donagak Choeling Nunnery, Yalbang	15	7	46.67%	2
	Total	856	122	14.25%	36

4.7. Total number of children who came for ear surgery for restoration of hearing: 11

List of Children undergone ear surgery from Schools and Monasteries of Humla

SN.	Name	Sex/ Age	Name of School/ Monastery	Surgery	Remark s	Photo
1	Kunsang Lama	M/16	Namkha Khyung Dzong, Yalbang	Left Atticotomy with Type III Tympanoplasty	GA	
2	Pema Tengey	M/16	Namkha Khyung Dzong, Yalbang	Left Myringoplasty	GA	
3	Pema Choedak Lama	M/15	Namkha Khyung Dzong Monastery, Yalbang	Right Myringoplasty	GA	
4	KaluBudha	M/15	Shree Mahabouddha Higher School, Yalbang	Right Myringoplasty	GA	

5	Pema Rapkay	M/16	Shree Mahabouddha Higher Secondary School, Yalbang	Left Myringoplasty	GA	
6	KunsangLham u Lama	F/15	Shree Mahabouddha Higher Secondary School, Yalbang	Right Myringoplasty	GA	
7	Pema Choedak	F/17	Donagak Choeling, Yalbang	Right Myringoplasty	GA	
8	Yongzom Lama	F/18	Donagak Choeling, Yalbang	Right Myringoplasty	GA	
9	SonamDorjee	M/13	Namkha Khyung Dzong Monastery, Yalbang	Left Myringoplasty	GA	

10	Pema Garap Lama	M/14	Namkha Khyungg Dzong Monastery, Yalbang	Left Myringoplasty	GA	
11	SujanaRawal	F/14	Shree Bhimsen Basic Level School, Simikot	Left Myringoplasty	GA	

5. Limitations of mobile ear screening program:

Ear screening programs of remote Himalayan regions have been going smoothly without any major problem but there are few limitations with reference to the following factors:

5.1. Expense

Mobile ear health screening camps, especially in remote rural areas of Nepal can be very expensive due to remote locations of schools, limited road access. It is not very easy financially for smaller organization like ECN to make more frequent visits to rural areas. ECN could do more frequent mobile ear screening programs provided ECN has more funds to cover these programs.

5.2. Accessibility

Most of the schools are not accessible by vehicle in rural areas of Nepal. They can only be reached by foot which requires many days of long hours of walk. Due to high altitude and bad roads many places are reachable only during certain months of the year like summer and Autumn limiting our working period. Other than the medical team more human resources like porters are needed to carry all the equipments, educational materials and medicines to schools and monasteries.

5.3. Co-operation

In order to conduct ear health program, ECN needs to acquire permission and cooperation from government authorities like District Education Office, District Administration Office, District Public Health Office, school authorities and village leaders for individual ear health program. The program cannot be implemented smoothly without the cooperation among these stakeholders and receiving

cooperation and coordination from government offices is a very lengthy process which takes both extra time and resources.

5.4. School calendar

Since it is a school based program screening/ surgical program has to be planned in accordance with academic calendar which greatly limits our working hours. We have to conduct screening programs by addressing conditions like exam schedule, semester breaks and school vacations.

5.5. Parents/Guardians participation in their child's ear health

As most of the parents of these children are illiterate and are ignorant about their children's ear and hearing conditions, it is very difficult to convince them for further treatments like ear surgeries and to use hearing aids.

5.6. Sustainability

It is not feasible to revisit these remote villages soon in near future. To overcome this problem ECN can provide training to local health workers in ear disease and hearing loss. So a trained health workers like Health Assistant, Auxiliary Health worker, staff nurse can continue ear screening of the school children and Buddhist monastic school children, follow up these children and refer them to Ear Care Nepal for surgical intervention if required. More funds would be required to sustain this program.

6. Conclusion

Since 2013 Ear Care Nepal has been doing "Heal and Hearing Trek" ear health program biannually in rural mountainous region with help from friends, family members, well wishers, board members and donors. This is an essential part of the preventive ear health program in rural parts. Awareness about ear health, financial status, lack of medical facilities and difficult access to medical care are few factors for very high prevalence of ear diseases and deafness in rural areas of Nepal. Ear diseases which could be prevented or treated at the early stage are often neglected, resulting in deafness and life-long burden to the society.

From the mobile ear camp conducted for school children/ monastic children and other local community members in Humla, it was found that the prevalence of ear disease was 14.25% which is very high with regard to the ear disease in the national context (7.4%). A total of 856 children were screened for ear diseases and hearing loss. Children with minor ear problem were treated on site and those who needed further treatment are referred to either BRINOS Ear Hospital Nepalgunj or Nidan hospital, Kathmandu (ECN's partner hospital) for free surgical management. Ear Care Nepal also bears the transportation cost for those children who cannot afford. A total of 11 children from different schools and monasteries were operated for restoration of hearing. Training of local health workers on ear diseases can be a very effective long term program for continuation and long term sustainability, therefore Ear Care Nepal will also plan for special training course on primary ear care to local health workers.

There are many people living in mountainous and rural parts of Nepal who are still unreached in terms of ear health facilities and which are often neglected, ignored. Ear Care Nepal wishes to continuously conduct mobile ear health programs in rural Himalayan regions of Nepal in future, provided the fund to organize such program in these regions.

7. Acknowledgements:

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8. Photo Gallery:



Team Ear Care Nepal at Simikot airport



Walking trail leading to Dharapori



Adventurous trails



Mules carrying medications and equipments



Beautiful landscapes, Humla Karnali river



Dr. Milan Maharjan screening children for ear diseases and deafness



Naresh Shakya helping children with registration



Audio-technician, Elina Maharjan conducting audiological evaluation of a young girl



ENT Clinic setup in a school



Young monks and nuns from Yalbang Monastery waiting for screening



Ms. Astrid Vohringer attentively making her graceful presence



Community Ear Assistant Ms. Alina Madhikarmi delivering lectures on primary ear care to children



Classroom converted into ENT Clinic, Mr. Topdhen Lama helping screening team



Mr. Gyalchen Lama giving away gifts to all the children



Children waiting patiently for ear checkup



Children delighted to receive gifts and not get injection



Dr. Monica Schumacher examining a girl



Provide primary ear care and medications to children with ear problem



Delivery of primary ear care education on prevention of deafness by Ms. Alina Madhikarmi



School children curiously reading animated booklet on primary ear care



Mr. Binay Bikram Adhikari busy capturing every montents in his lens



Women from local village waiting for checkups



Screening team with children of Hekpa



Ear Care Nepal screening team with children of Kermi



Remotely located schools like this one at Kermi



Classical Heal and Hearing Trek, Humla



Beautiful children of Humla



Dr.Monica Schumacher teaching health worker from Kermi about common ear diseases



Humla Ear Health Screening Team: Ms. Astrid Vohringer, Dr. Milan Maharjan, Dr. Monica Schumacher, Mr.Binay Bikram Adhikari, Mr. Naresh Shakya, Ms. Alina Madhikarmi Shrestha, Ms. Elina Maharjan,

Mr.Kumar Lama, Mr. Yeshe Lama, Teacher-cum volunteer Mr. Topdhen Lama, Guide-cum volunteer Mr.Gyalchen Lama