## **Review Article**

## Orthopedics service at a rural setup

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Karnali Academy of Health Sciences was enacted by the Constituent Assembly in the capacity of the Legislature-Parliament pursuant to Article 83 of the Interim Constitution of Nepal, 2007 AD. It is situated in Jumla district of Karnali zone at an altitude of 2350 meters which is approximately 825 kilometers far from capital city Kathmandu. Its aim is to provide health services in the backward (Pichhadiyako) areas in an easy way, conduct high standard study and research activities, to produce skilled human resource necessary in the health services.

If Nepal's development efforts can be considered as a partial success, Karnali's development is still a total failure. These are the areas where human development indicators are worst and are responsible for the poor health indicators of the whole country. The HDI is 0.374 and the average life expectancy of this region is 61.2 years which is far below the national figures (The HDI of Nepal is 0.49 and life expectancy is 68.8 years). In another words most of the underdeveloped districts are located in Karnali zone.

With minimal resources we have been providing orthopaedic service in Karnali Academy of Health Sciences since June 2013. In the initial days orthopaedic surgeons were deployed from Nepal Orthopaedic Hospital Jorpati Kathmandu after a MOU between two hospitals. Residents of Jumla and from adjoining VDC's of Kalikot, Mugu and Dolpa districts are being benefited from our services. These are the areas where orthopedics service is one of the most needed specialties due to the uneven geographic topography and unexpected natural calamities. Orthopaedic and trauma management is highly demanding facility in this rural community as people have to travel to other

center where transportation of patients and financial issue becomes a major concern. There has been a rise in no of patients who seek orthopaedic facility at our hospital including emergency, outdoor clinic, indoor and operative case as tabulated below. Paediatric trauma is very common in our hospital. Polyarthalgia, low back pain, fibromyalgia and osteoarthritis are the common presentation in adults in outdoor clinic. We have a separate plaster room at our outdoor clinic for POP application and removal where closed reductions are also performed when necessary. C-arm machine has led to closed reduction and internal fixation in many patients since its arrival on 19th July 2015. Before the presence of fluoroscopic guidance we were bound to perform open reduction unwillingly in most of the patients.

	2071	2072	2073
Orthopaedic Surgery	124	212	243
(Major + Minor)	124	212	243

Devi kanya pandey 65Y/F a permanent resident of Kalikot who presented with fracture neck of femur underwent first Hemi Replacment Arthroplasty a major orthopaedic operation on 9th Sep 2016 in this hospital which gained national attention. As a part of community participation a three day orthopaedic outdoor camp was conducted in Pandugufa VDC of Jumla from 31st May 2016 to 2nd June 2016 in collaboration with DHO Jumla. Similarly, one day free orthopaedic health camp was conducted at Raralihi VDC of Jumla. We have been working in close relation with disability and rehabilitation center of Jumla and Women's and Children's Office to recognize and provide disability certificate to the needy ones.

We have been actively involved in teaching and learning programme. We frequently take lectures to students of PCL Nursing and General Medicine (HA) of our academy. We have been organizing CME on various topics related to orthopaedics to the paramedics, nursing staffs and medical officers. "Primary trauma care and non-operative fracture treatment for paramedics" an AOAF course was organized at our premises on 12-13 Oct 2017.

Our orthopaedic department is working with keen interest to serve the under trodden people of this backward community. Lack of post-operative ward, intensive care unit has become a major hurdle to carry out other major orthopaedic operations like spinal surgery and total joint replacement surgery. During the management of orthopedic patients, only surgery does not give a good outcome but surgery followed by close involvement of physiotherapist gives a good clinical and functional outcome. Moreover physical therapy is needed in other departments including Gynecology, Pediatrics, General Surgery and Medicine to provide quality care.

Patients come from remote distance with a hope in receiving a standard quality health care but we are in a state of misery as many of these facilities are lacking at our premises. Sometimes the post-operative outcome becomes poor due to lack of physiotherapy unit which has become a limitation in our department to provide service to the fullest.

It is not easy to work as an Orthopaedic surgeon in a rural set up of a developing country like ours. Delayed presentation due to uneven geography, long distance to reach the health care facility, negligence by the patients and their parents themselves, initial management by the traditional bone setters make orthopaedic problems more challenging in our setup.

I recommend for the necessary set up of postoperative ward, ICU and physiotherapy unit to deliver full orthopaedic care. Existing faculties should be motivated and academic promotion should be on time and the academy should arrange further trainings, fellowships to the surgeons which will provide energy to work efficiently in the coming days.