

## Rural Surgery: Time for a new specialty!

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**Background :** One of the demands of the Alma declaration of the WHO to which Nepal is a signatory was that health should be available to all and a proper referral system must be developed as a part of total health care. This is lacking in most developing countries, including Nepal. A large number of medical colleges and private hospitals have sprung up in large cities, all without any proper referral system to cover the rural population. As a result even today women die of obstructed labour in the countryside while transplants and bypass operations are being done in the large cities.

It is believed that only one billion out of the total six billion population of the world has any access to proper surgical care. We are unfortunate not to have any national data indicating how many people have died in rural areas because of lack of surgical facilities. We do not know how many of the total surgeries are performed in the rural settings by qualified as well as unqualified surgeons. In some areas, General Practitioners (GPs) are providing primary health care including basic surgical care and caesarean sections.<sup>1,2</sup> We have no criteria to test GPs about their surgical abilities and to allow them to perform certain type of surgeries. We lack the national data about how many major surgeries are being performed by GPs. There has been no proper training programme for GPs or other doctors working in rural areas to enhance their surgical skills. We never take into account how many patients have died because of delay in surgery in areas lacking GPs.

**Experience from India :** According to Indian National Human Development Report 2001, not more than 20% of the population has any access to basic surgical services like life saving caesarean section or repair of typhoid perforation. Realizing the vital role of rural surgeons in the nation's health care, Dr Gazeiry, past Regional Director of WHO remarked that rural surgery be made into a specialty.<sup>3</sup>

Request to identify rural surgery as a specialty and form a wing in rural surgery to Association of Surgery of India was turned down and a separate and independent Association of Rural Surgery (ARSI) was formed in India in 1992. The Indira Gandhi National Open University, New Delhi, has designed a multidisciplinary course in Rural Surgery in collaboration with the Association of Rural Surgeons of India (ARSI).<sup>3</sup>

A new postgraduate specialty in rural surgery 'Diplomate of the National Board (DNB)' in rural surgery was started in 2007 by the National Board of Examination in association with the Ministry of Health. It is a three year training that includes rotations in General Surgery, Orthopaedics, Obstetrics and Gynaecology, ENT and Ophthalmology. A curriculum was developed that aims to equip them with basic surgical skills in these specialties as well as sufficient administrative skills, so as to enable doctors to set up and run surgical centers in rural and needy parts of the country, meeting a majority of the surgical needs of the community. Six semi-urban centres were chosen as the training site. It is expected that the need of 400 million Indian people deprived of basic surgical care will be met with this new concept.

### **Why we need rural surgery as a new specialty in Nepal?**

Nearly 20 post graduate trained surgeons are churned out of Nepalese medical colleges every year and many more uncertain numbers of surgeons passed out from international universities are absorbed in the larger hospitals and

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teaching institutions of the country mostly situated in Kathmandu. Few, especially those holding a government job, go out to regional level of hospitals. Rarely, General Surgeons work in district level of hospitals where the majority of the country's population seek health care. An informal survey shows out of thirty General Surgery graduates from a government post-graduate institute in last five years, 60% are currently working inside Kathmandu and the remaining are working either in a regional level hospital or in the medical colleges in large urban areas outside Kathmandu. Absence of government posts for surgeons, lack of anaesthesiologists, less volume of work and availability of training in advanced surgeries in urban areas are cited as the reason. Moreover, many of the general surgeons leave their residency feeling untrained to negotiate the variety of problems that the rural general surgeons encounter.

The MD in General Practice programme, despite greater security problems and little change in infrastructure support, continue to be reasonably successful in getting doctors to rural areas. But, MDGPs are still generally not using the wide range of skills from their training. In this context, one of the noteworthy remarks made by a survey<sup>4</sup> done in 2006, out of total qualified General Practitioners in Nepal, 61% are working outside Kathmandu at the time of survey but only 30% and 50% of them are using their surgical and obstetric skills respectively.

There continues to be a need for greater commitment to appropriately place MDGPs in places where they can use their skills. GPs who have worked in a rural *and remote* areas agree without argument that performing surgery is never a comfortable and willing decision for GPs. Surgeries are performed as a last option and all the decisions for surgery were taken to save lives and to save money to the patients, when referral is next to impossible. Many of the GPs in the rural area resist the temptation of entering the unexplored area of surgery for many such reasons but those few who make the best use of their surgical skills gained during their GP training to help the poor underprivileged people should be encouraged and lauded.

Quality of the surgery performed by GPs has been questioned.<sup>5</sup> Authors are interested more about the outcome (or success) of these surgeries rather than the number of surgeries.<sup>5</sup> The quality of health care may be assessed on the basis of structure (the attributes of the setting of care), process (the details of the care

provided), or outcomes (the results of care).<sup>6</sup> A life saving procedure performed in a rural hospital with minimal morbidity is what we term as a quality service. But is our GP training programs good enough to train the GP residents in doing emergency surgeries efficiently? Are our GPs competent enough to manage life saving procedures like typhoid perforation, obstructed hernia or blunt abdominal trauma? (Another informal survey in an urban GP training site showed GP residents in their entire surgical posting perform on average 7.1 appendectomies and 1.9 duodenal ulcer perforation repair independently otherwise they just assisted in operations like appendicular perforation, typhoid perforation, obstructed hernia, ileostomy and blunt abdominal trauma). The problem here in Nepal is striking a balance between creating an accessible surgical service to the rural population and providing quality surgical care.

Hence, the situation in Nepal is General Surgeons are not working in the rural areas and GPs who work in rural areas are not very well equipped to serve as a true rural surgeons.

### Who should be trained as Rural Surgeons?

Rural surgeons need a broad variety of skills and disciplines not traditionally taught in general surgery residency. They should be able to perform the basic, common procedures performed by ObGyns, Orthopaedicians, General surgeons and sometimes Otolaryngologists. In Nepal, who else is better equipped to get trained as a Rural Surgeon than GPs? GPs in their three years of residency spend six months each in ObGyn and Surgery (including Orthopaedics). They, moreover, spend six months in rural settings in their residency. Hence, further training of GPs in rural surgery will be more fruitful to the community, career boost to the GPs, technically more convenient and more rewarding in the long run. Further training of GPs in rural surgery will add a new dimension in the career of GPs in an otherwise non-existent career ladder for GPs in Nepal.

The author recommends that GPs should be trained not only surgically but appropriately so that he or she can go the rural areas and work under severe constraints of resources. A survey<sup>3</sup> was conducted in India in 1986 about the working conditions of 140 surgeons in rural areas. It was found that 45% of them work without a qualified anesthetist, 68% without a qualified radiologist,

68% without a qualified pathologist, 63% without any blood bank facilities and 32% without any of the above facilities. Hence, rural surgeons should be able to combine their medical and surgical knowledge together with locally available human and material resources and provide appropriate health care to the people. They should go into total health care to live up to the needs of the community.

### Where should Rural Surgery Training take place?

Rural Surgery Training should take place in a moderate-size semi-urban community hospitals, where specialists are available to provide high-quality training. The trainee should get the feel of small-town life, become an integral part of the community and not suffer competition from specialty trainees. The training site should ideally be the referral centre for the place where trainees are planning to work in the future.

Trainees should be rotated in between the training site and the site where he or she is planning to work in the future to let the trainees be in constant touch with both the sites. That gives time for the trainee to establish the proper environment and make improvisations if necessary, for him to work in his or her original working place, develop a rapport between the two sites which will be useful for future referral and does not take away the manpower from his or her working place in the entire training period.

### Conclusion

As in India, it is obvious that the concept of rural surgery will be seen with a frown by the surgical community of Nepal. At this time, when the surgery is heading towards many rapid advancements like from laparoscopic / endo surgery to robotic surgery, the concept of rural surgery may sound regressive. However, sustainable health care development will take place only when we professionals set the right type of priorities suitable in our local scenario and which will benefit the majority of the population of our country. Rural Surgery training can be undertaken effectively inside Nepal with our available resources by a combined dedicated GP and Surgery team without need to import any new technology or equipment from the outer world. Today the pressure of the healthcare

industry of the developed world is so enormous on developing countries to sell their products in the name of "development". We, who are working amongst poorer people and without any health insurance or social security, should resist this pressure.

Even in countries like USA, Rural surgery is a subject that often is discussed but little has been done to address the problems of rural surgery. It has been observed that in countries where they already have a concept of rural surgery, rural surgeons may become an endangered species because of multiple factors, including: lack of broad based training, increased specialization, increased workload for the general surgeons in the urban areas and decreased reimbursement. To avoid a similar situation in Nepal, different measures should be thought of in the preliminary period. Solutions include programs dedicated to training rural surgeons, networking with tertiary care hospitals for referral purpose, equal pay for work performed regardless of the location and regionalization of rural surgery centers with multiple surgeons so the lifestyle issues can be addressed.<sup>6</sup>

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