Orthopedic Care a-CROSS Community

Providing quality health care to all parts of the country is a challenge in India given the geographical variation and constraints in the form of resource material as well as workforce. We have 70% of the population living in rural areas in 649,481 census villages covered by 725 districts. While as a nation we are still struggling with maternal and infant mortality, several other specialties are accorded low priority among policymakers. For instance, orthopedics is not technically considered a primary care specialty. But, can we afford to ignore orthopedics at the community level? Trauma is ubiquitous, and quality trauma care has to be available to every citizen. Early diagnosis and treatment of inflammatory disorders is still a dream in far-flung areas, and tertiary care centers often deal with end-stage crippling arthritis patients bedridden for a number of years. While geriatrics has recently caught the attention of policymakers, orthogeriatric services are scarce in urban areas, let alone rural. It is known that 75% of medical expenditure incurred on people >70 years of age is for the treatment of orthopedic disorders, a fact that needs the attention of policymakers. Chronic joint pain and chronic low-back pain are extremely common in rural population. Musculoskeletal (MSK) pain was the most common self-reported ailment in the community in the maiden WHO ILAR Community Oriented Program for the Control of Rheumatic Diseases study in Bhigwan, India. The predominant underlying disorders were soft-tissue rheumatism, ill-defined MSK symptoms, and osteoarthritis. As many as 10% of cases suffered from inflammatory arthritis, and the burden of rheumatoid arthritis was high with a point prevalence of 0.7%.[1] Hip fracture is known to be the biggest killer in the elderly, more than heart disease, stroke, and cancer. The emergent treatment of hip fracture is surgery which may not be available to the injured in India for as many as nearly 87 km away from home.[2] There are talks about the secondary fracture prevention following a fragility fracture globally to mitigate the epidemic of fragility fracture looming large over the aging population of the world. Awareness about the need for this intervention is abysmally low both among our physicians and the general public. Osteoarticular infections, especially tuberculosis, are still untamed and are a major concern.

The challenges to the provision of health care in remote rural areas are global. Only 20% of population of the USA resides in rural area, which is spread over 97% of its land. Limited access to health services, long distance to travel for specialized care (80 miles in one study), lack of data, variation in health-care needs and practices, availability of subspecialties, capabilities of the local hospitals, and critical shortage of workforce with skill set willing to work in remote areas are the concern and challenges faced by the USA. All these could well be termed as challenges for Indian health-care providers as well with the addition of low awareness, poverty, and illiteracy.

While the state is expected to take care of community health, orthopedics ranks very low in the list of priorities. Of all the 12 primary care packages to be provided by all health and wellness centers in India, none includes the orthopedic care except possibly the package for emergency medical services which include trauma. While other pressing needs as well as insufficient data about MSK problems could have decided the priorities and the corresponding packages (oral health, ophthalmic, and ENT rank above emergency medical services which managed to just about push the mental health ailments to the last place!), it does not reduce the relevance of taking care of MSK health in our aging society. While the government has to deal with the large number of constraints, participation from other sectors can be a welcome help. The Indian Orthopedic Association (IOA) has had a committee on rural health for a while which has aimed to train workforce in remote areas in skills such as plaster application. The Community Responsive Orthopedic Surgeon and Surgery (CROSS) initiative was started this year with a committee set up to launch community-based initiatives by the IOA while amalgamating with it the ongoing programs. A community-responsive orthopedic surgeon has a deep understanding of the social, financial, cultural, and ethical issues that act as barriers to the provision of quality care. Prevention of diseases and promoting good bone health are fundamental to reduce the cost of orthopedic health care. In fact, a committee constituted by the Ministry of Health and Family Welfare to provide care for trauma and burns emphasized on identifying accident-prone areas/factors in the villages (such as a well without a parapet and a kitchen with inflammable materials in close vicinity to fire) by detailed incident reporting of every mishap. Calcium and Vitamin D deficiency in the community could be well addressed by free distribution of calcium and Vitamin D tablets in the community much like iron and folic acid tablets are distributed among pregnant women in the community. School screening could pick up congenital abnormalities, scoliosis, rickets, and several other diseases and prompt their timely treatment. Clubfoot clinics are afoot as a result of collaboration between the IOA and the Ministry of Health and Family Welfare, which will go a long way in bringing this extremely common malady under control. Members of the IOA have to manage the clinics in their region in collaboration with the ministry. Similarly, a call for volunteers from the members of the IOA for the Trauma and Disaster Committee met with a tremendous response, and 250 members from all parts of the country

made a commitment to represent the organization and help in relief works in case of a disaster, natural or human made, in their region. A seed fund has been established with a call for voluntary donations to build a corpus that will be donated in the hour of crisis by the association in addition to providing the skilled local workforce.

There are additional strategies to provide MSK care to the people residing in less served areas. While rural people often have to travel long distances for orthopedic care, often leading to delayed treatment, increased costs, and poorer outcomes, orthopedic surgeons with concern for the community can improve the access of rural community through visiting consultant clinics.[3] The concept essentially involves regular scheduled visits by a specialist to an outreach site. Patients can benefit as they receive diagnostic services and some outpatient procedures locally, while complex cases are identified and referred to higher centers. These clinics have been shown to improve access to specialized care, provide better quality care, improve outcomes, and help specialists expand their patient base. Another strategy to address the issues of rural access to care, quality, cost, and workforce issues is the promotion of telemedicine. Telemedicine can provide health-care services, typically interaction with patient and/or caregiver, evaluation of imaging and other investigations, and monitoring of patient progress from a distant location.[4] In digitally enabled new vibrant India, the widespread availability of telemedicine can improve health care in remote areas. Charity, social commitment, or monetary compensation could all attract the specialists to contribute to better care in far-flung areas through telemedicine. Telemedicine has been proven to be cost-effective, convenient, and easy to use. Both consultant clinic visit and telemedicine have the potential to reduce "Rural Bypass," wherein the patients bypass their local health-care facility to seek treatment from a more distant facility.

Another strategy to augment workforce in rural settings has been suggested by Hancock *et al*.[5] which could well apply to paramedical staff recruitment. The authors suggest that a "rural upbringing" or rural exposure could motivate a trainee to locate in a rural area through four pathways which include familiarity, community involvement, sense of place, and self-actualization. Various educational and recreational activities could be employed to provide rural exposure to this purpose.

Another cost-effective strategy can be to train rural primary health-care providers to perform some basic procedures. In one such study, care providers in rural settings were trained to perform knee injections, thereby avoiding the need for referral of patient to a higher center for the procedure to be performed by orthopedic surgeons or rheumatologists.[6] The authors established that training rural providers could result in significant cost savings.

It is prudent to mention here that treating patients in a resource-constrained environment does not mean that we can lower the standards of care or accept suboptimal outcomes. It is better to refer the patient to a higher center or arrange help locally through the strategies listed above. While innovative approaches and strategies best suited for the local resource-constraint setting must be encouraged, these must result in outcomes not inferior to the established methods of treatment.

On September 23 last year, Ayushman Bharat Yojana or Pradhan Mantri Jan Arogya Yojna or National Health Protection Scheme was launched. This centrally sponsored scheme provides medical insurance cover to 500 million members belonging to 100 million Indian families for medical expenses up to 500,000 rupees annually. To address health-care needs holistically, the scheme targets both preventive and promotive health, making interventions in primary, secondary, and tertiary care systems. While we still have to wait for statistics to pour in regarding the specialty-wise utilization of these funds, it has certainly made procedures such as total hip replacement, total knee replacement, trauma care, and spine surgery accessible to marginal populations. This may well prove to be a big move to improve access to surgical treatment including orthopedic care to poor families in addition to improving awareness about the availability of health care.

To conclude, most of the challenges presented when providing hitherto neglected orthopedic care in the community for a diverse population like ours across different terrains can be overcome by an orthopedic surgeon who cares for the community and is able to respond to its needs. We are all bound by our scriptures bading well for everyone in the world, and we must contribute, together and severally to that purpose.

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सर्वे भवन्तु सुखिनः
सर्वे सन्तु निरामयाः ।
सर्वे भद्राणि पश्यन्तु
मा कश्चिद्दुःखभाग्भवेत् ।

May all be Happy,
May all be Free from Illness.
May All See what is Auspicious,
May no one Suffer.

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