Sub-specialization in pediatric surgery: Who, when, where

The concept of sub specialization in the super specializations of pediatric surgery is not new as there are many centers in the world celebrating their first and even second platinum jubilees with the arrangements of sub specializations like pediatric urology, neurosurgery, GI surgery, medical oncology, endocrinology, genetics and many others. Going back in the history it is evident that sub specializations have usually come from major related disciplines, usually initiated by future enthusiastic and entrusted clinicians to develop a particular area of interest, foster research and develop the field of sub-specialization in particular.

While considering developing sub specialities in pediatric surgery, following aspects would require special attention:

1. To develop the specialized field to provide high quality patient care, conduct research to provide guidelines and sensitize others to be included in the fold.
2. To choose a field that is different, less competitive and more recognizable.
3. To recognize the need for specialized training that is not provided during the training for pediatric surgery. This goes especially for pediatric cardiothoracic surgery, pediatric orthopedic surgery and to some extent for pediatric neurosurgery. At present sub-specialization with pediatric cardiothoracic surgery and pediatric neurosurgery lies with those trained in cardiothoracic surgery and neurosurgery.

As a prerequisite to develop any sub specialty, there is a need not only to have adequate knowledge, sufficient patient workload and available infrastructure along with related clinical disciplines but also to have supportive services like laboratories, nuclear imaging, pathology, microbiology, virology, informative library, advanced anaesthesiology, fully functional and equipped blood bank, expert radiological imaging and many others.

WHEN TO START?

Once the area of pediatric surgery is deep rooted in the minds of the common Indian man, only the need for sub-specialization will be recognized. This will vary in different regions. There are places where the common man from the villages and even some cities does not recognize the entity of a pediatric surgeon … a surgeon is all for them. However, they do seem to voice their preference for laparoscopy surgery that has reached the masses mainly through the laparoscopic family planning programmes.

AREAS OF SUB-SPECIALIZATION

The thrust areas are many, including trauma, oncology and then any part of the body from head to toe. The problem is not so simple to define and handle. For example, if we consider ophthalmology, a major branch but dealing with a small and vital organ for 3 years of training on that. No one will have an objection if a pediatric ophthalmologist is one with training in ophthalmology and a special interest in surgery for pediatric problems. Similar situation is for ear and nose anomalies. On the other hand a need for some training on tracheal anomalies does arise once in a while when encountering rare congenital tracheal anomalies, for which there may not be specialists at all.

One thus needs to recognize the areas in which one needs to filter specialization. The training of pediatric surgery is very wide and every pediatric surgeon being trained to handle-neonatal surgery, trauma, GIT, hepatobiliary surgery, urology, lung surgery, oncology, plastic surgery (pertaining to congenital malformations) and neurosurgery (except major head trauma and brain tumors). In these areas, a pediatric surgeon is already trained and with special interest in a particular field, one may attach to any specific subspecialty.

There are other areas like pediatric laparoscopy and endourology in which the training will depend on the availability of the particular expertise. Yet, one needs to recognize that laparoscopic surgery can be utilized and preferred only for certain pediatric surgical diseases and not all.

UNTOUCHED AREAS

There are certain areas that are lacking in this country, including fetal surgery, pediatric liver transplant, pediatric vascular surgery, surgery for craniosenosis,
pediatric endoscopy and pediatric renal transplant. If pediatric surgeons do not recognize these areas, either they will be left untouched or others will encroach upon them.

**ESSENTIAL TO RECOGNIZE THE NEED**

The need for any specialization varies from centre to centre and country to country. One should analyse the number of cases seen, attended to, operated upon and those referred elsewhere. The “those referred elsewhere” for lack of expertise in the field is the crux of the present discussion. Another area is a field like vascular malformations that needs serious thought on who should handle them, the pediatric surgeon, vascular surgeon or plastic surgeon. The sufferer is the patient who runs from pillar to post in search of the appropriate centre and the appropriate surgeon. Thus each centre should analyse the need for the sub-specialization required depending on the cases seen.

**INTER-SPECIALITY LEARNING**

This issue is not only craving in the minds of paediatric surgeons but also surgeons from other branches. After all, the physiology of newborns and children is better understood by paediatric surgeons. One can propose to have bilateral academic exchanges between the various departments so that one can learn from each other. In future too, if a need is recognized for training in a special field, trainees from related branches may be given a chance to opt for it. The training period may be distributed in each related branch and may be left to the choice of the trainee depending on the recognized need.

**WHO IS ELIGIBLE TO TEACH IN THE SUB SPECIALIZATION?**

Anybody who has got sufficient training in the designated field not only to diagnose, investigate, operate and look after the post operative care but also capable of identifying and managing the complications arising at any stage of the management, should be eligible to pursue his/her career in the specialized field. The safety and the right of the patient should be supreme. The one who knows best to manage should be given the responsibility to treat and teach, irrespective of the status, place and affiliation

Pediatric surgery is comparatively a new specialty, just 40 years old in this country, with about 20-25 teaching centres providing three-year training course leading to the award of M. Ch. degree. Incidentally the teaching staff, clinical material and the infrastructure to offer training at the highest level vary very much from place to place and region to region. Few sub-specialities attract more attention being lucrative in recognition and practice while others may remain neglected and only few may be the takers with very little or no future scope.

The concept of developing further sub specialization in this specialty was deliberated by the heads of departments while preparing the IAPS curriculum and the syllabus for M.Ch. training programme in Paediatric Surgery, in 1998. It was unanimously felt that barring few centres in this country neither the clinical workload nor the sufficient infrastructure existed to start an efficient fellowship programme in neonatal surgery, urology, oncology, neurosurgery and plastic surgery. It is certainly true that pediatric surgeons by virtue of their training backgrounds dealing with newborn and children have an edge over others and would be able to handle and understand the children better in the pre-operative, operative and postoperative period. Thus for starting further specialization, the selection process, duration of the course and the process of certification should keep these pre-requisites in mind.

**FOOD FOR THOUGHT**

In the present context, it may be important to leave some food for thought and bring to light another important issue. It may be wiser to consider constraining oneself to a particular field first to see if it feasible for a pediatric surgeon in India to survive on a subspeciality of a super-speciality. The scene may be different for an institutional person. However, a private practitioner who often complains of struggle to thrive on pure pediatric surgery at present, will be prepared to practice a pure pediatric urologist, neonatal surgeon or a pediatric laparoscopist only in the sub- superspecialized field so chosen?

**TO CONCLUDE**

Our country has only about 800 against the need for over 4000 pediatric surgeons. However, it cannot be left behind without the sub specialities in the super specialty. The advanced facilities for treating children with various types of major and rare surgical anomalies need to be made available in the country, let it be only in the higher centres of teaching and training. The need is to define who should provide training, seek training and who should practice after getting the training. The purpose is not to have a monopoly in any of the above fields but safeguard the interest of the super-speciality for the benefit of development of
advanced pediatric surgical care. It is well said that the level of development of civilization in the society is a direct reflection of the significance it has given to achieve the care of health of children in that country. In the near future, we might need to adapt changes in the best interest of our patients to help our super-speciality blossom into multiple sub-specialities.

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