Training problems of residents in urology

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Dear Editor,

I would like to share my opinions about training problems of fifth-year urology residents with you. Urology residency training encompasses a 5-year period. Most of our colleagues work in a state or a private hospital as urologists after they completed their residencies. In these healthcare organizations they perform their duties limited to certain diseases, and surgical interventions without the need for many scientific information, and applications they learnt during their residency training. A relatively smaller group of urologists are working in educational institutions with the intention to make progress in their academic careers. These colleagues of ours are trying to improve their training, and practices more comprehensively and in detail in their academic center in a subspecialty of urology.

In recent years urology is one of the specialties –may be the most prominent discipline- that has developed most rapidly, and kept pace with sophisticated technology. Newly developed endoscopic devices with smaller size, and more improved imaging capabilities have changed the urologic surgical modalities. Many diseases which were treated using open surgical methods, nowadays can be managed using highly sophisticated endoscopic devices.^[1] For example currently, open stone surgery has been performed scarcely. Indeed, for the management of stone disease most frequently rigid or flexible ureterorenoscopes, standard, mini, micropercutaneous methods. Surgical treatments of renal, and adrenal diseases can be performed using laparoscopic or robotic methods.

Because of introduction of high technology into clinical practice, and increase in the num-

ber of surgical treatment techniques of the same disease, 5-years of residency does not always suffice for the learning of these new applications. Indeed urology has divided into different subspecialties as pediatric urology, uro-oncology, endourology, andrology, neuro-urology, and female urology. During standard residency period learning basic theoretical information concerning these subspecialties, and their practical applications are not adequately achieved. The only reason for this deficiency is not due to very much detail and time constraints. During training, inability to perform or observe adequate number of various interventional procedures in various types of disease is also responsible for this deficiency. In some centers residency training is restricted to the fields of interest of the educator(s). In recent years many training and research hospitals affiliated with Ministry of Health, state, and foundation universities have been established. Urology residents are sent to urology clinics of these health institutions, and organizations. In these institutions residents do not see adequate number of patients, and operations, and these health centers have not the necessary technology for the diagnosis, treatment, and monitorization of these patients. However after they completed their 5 years of training the residents become specialists who gain the ability to conduct a clinic.

The educational level of residents' training in established, and time-defying health institutes is not so perfect. Indeed in line with increase in private, and state hospitals, number of patients applied to these health institutes have decreased. In addition to decreased number of patients, endoscopic treatment modalities using sophisticated technology have risen to prominence. Residents begin to see, and learn endoscopic treatment modalities without any

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knowledge about classical open surgical methods. Current educators in training and research hospitals, and university hospitals neglect some open surgeries performed by residents or by them, and prefer to perform technologic, and endoscopic methods at the expense of learning, and practicing new technologies. Thus residents do not have a chance to watch, and practice these surgical interventions. At present training in training and research hospitals, and university hospitals does not target residency training but post-graduate training. Our current educators know classical open surgeries, and can easily apply up-to-date technologies, and endoscopic methods. However can a resident without surgical experience resolve a complication occurring during endoscopic procedures he/she performs independently as a urologist in his/her health institute? For example how can a resident who learnt how to perform percutaneous nephrolithotomy and rigid/flexible ureterorenoscopy but who did not see an open stone surgery, approach to a serious complication as bleeding, renal and/or ureteral injury occurred during these endoscopic procedures? Besides, in some cases endoscopic methods can not be applied. Irrespective of your experience in endoscopic surgery, if you haven't adequate experience in open surgery, inevitably you will come face to face with serious problems in these cases. Therefore learning open surgery during residency training carries vital importance.

In a 20-item questionnaire survey conducted by our clinic via e-mail, we analyzed the opinions related to urology training, experiences, and preferences of residents receiving training in university hospitals, and hospitals affiliated with ministry of health.^[2] In this questionnaire survey, period of their residency, their interest for a subspecialty of urology, their opinions, and experiences about open, and endourologic interventions, adequacy of their training, their preferences for open surgery or endoscopic methods during their urology practice, and their recommendations about improvement of residency training were inquired. Items of this questionnaire survey were responded by 27 of our fellow-residents working in health institutes affiliated with ministry of health, and 23 residents in university hospitals. Mean period of residency of these colleagues was 3.64 ± 1.80 years, and 43 (86%) of them stated their interest in a subspecialty of urology. Mostly interested subspecialties were endourology (38%), followed by urologic oncology (26%). Although endourological interventions have been performed in many centers, respective percentage of residents stated that they hadn't performed percutaneous nephrolithotomy (56%), flexible ureterorenoscopy (84%), and laparoscopic surgery (94%) at an adequate level. Sixty-four percent of participating residents said that adequate number of open surgical interventions were performed in their clinics, however 56% of the residents did not find themselves adequately equipped in endourological procedures which in case of need, should be converted to open surgery. During post-residency period open surgery was preferred

by 6% of the urologists for the treatment of urinary system stone disease, while 50% of the urologists preferred open surgery for the treatment of upper urinary system, excluding stone disease. Only 52% of the participants deemed residency training to be practically sufficient for upper urinary system surgery. For a more improved practical training, 48% of the participants indicated one-to-one training, and 32% of them suggested that clinical rotations for 3-6 months should be implemented. Although this investigation comprises a small group, it is important in that it gives a glimpse of the present situation.^[2] Studies with greater number of participants should be performed to get an idea about general opinion on these issues.

Certainly, some educators are aware of the inadequate level of residency training, and feel sorrow for this desperate situation of residents who were entrusted to their instructors for at least 5 years. These feelings place the educators under a serious psychological burden. Educators should learn developing technologies, and teach them to residents together with classical methods. Indeed the physicians who complete their training will be representative of their healthcare institute, and educators who trained them. For every favourable, and nice accomplishment their healthcare institute, and educators will be dignified, and become proud. But for each problem, and difficulty they experienced their institute, and educators will be blamed.

Current state of opportunities offered to residents to learn, and gain skill in technology-dependent interventions is only one aspect of the problems related to residency training which we analyzed in this article. In addition to this issue, many problems emerge related to core training program, training methods targeted to gain knowledge, and skill, equality of opportunity, workload of residents as for productivity of healthcare services, standardization of minimal ultrastructure of institutes which provide residency training (educator, library, means to access information, operating rooms, services, wards, polyclinics, medical devices).

However the issue of 'what should be done?' should not be left to the responsibility, and discretion of one person or healthcare institute. Ministry of Health, Council of Higher Education, Turkish Association of Urology, Turkish Urology Board of Aptitude, and representatives of residents should come together, and construct a solution program in collaboration. Should residents learn every subject of very comprehensive scope of urology from both theoretical, and practical aspects during their 5 years of residency? Or if post-residency training programs are organized based on their preferences will they, and their educators feel much more comfortable? May deficiencies in open surgery be fulfilled by watching original videos of scarcely performed open surgeries, and organizing live surgery courses on cadavers, and animals? Besides may computer-assisted simula-

tion programs, rotations between clinics of different disciplines, and participation in the organ transplantation team meet the need for deficiencies of the residents in open surgery.^[3-6]

Time is passing swiftly, and our residents are gaining the title of urologist as they complete their period of specialization. These colleagues of ours will provide healthcare services to today's educators, and public, and also train, and educate their residents. Because of inadequate training, and education received by residents at present, these colleagues will offer insufficient healthcare services to present day educators, and the public. Present day educators, and educators should at least think themselves, and so take an eager interest in this issue, and seek a solution to this problem.

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