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Development of Laparoscopic Surgery and Training Facilities in Europe: Results of a Survey of the European Society of Uro-Technology (ESUT)

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on behalf of the members of the board of the ESUT

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Abstract

Objective: The European Society of Uro-Technology (ESUT) conducted a survey in order to assess the application of laparoscopy and the facilitation of training programs within Europe.

Methods: A total of 430 urologists and residents from European countries answered the ESUT survey during the XVIIIth Annual EAU Meeting in Madrid in 2003. The survey constituted of 11 questions of which nine with dual response (Y/N) options. Two questions, evaluating the importance of different training methods and different reasons not to be involved in laparoscopy, were assessed by means of a Likert type scale.

Results: Laparoscopy was performed in 71% of urological departments. The majority (85%) of departments where no laparoscopy was performed, intended to establish it in the future. Two thirds of respondents believed laparoscopy would replace open surgery in the next 5 to10 years. The access to training facilities was insufficient for 44%. Different methods of training were considered to be of equal importance. Among the reasons for not being involved in laparoscopic surgery a high variability was identified.

Conclusions: Laparoscopy is performed in the majority of urological departments in Europe. While there is a strong believe in the prominent role of laparoscopy in the mid-long future, access to training is still needed.

Keywords: Laparoscopy; Training programs; Survey

1. Introduction

The European Society of Uro-Technology (ESUT), a full member of the Section Office of the European Association of Urology (EAU), connects urologists and urological scientists in Europe who are interested in new technological developments and their clinical applications. The aim of ESUT is to update and educate European urologists in the field of uro-technology including minimal invasive treatments like urological laparoscopy. An important step in the accomplishment of this objective is to assess the present practice and future needs among the urological community towards advances in uro-technology. For this reason we pre-

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pared and distributed a survey to European urologists visiting the ESUT garden during the EAU Meeting in Madrid in 2003, focusing on present use of laparoscopy and interest in laparoscopic training.

Laparoscopic surgery has become increasingly popular in urology, reducing patients morbidity and shortening the period of convalescence [1–3]. The list of indications for urological laparoscopic treatment continues to grow and patients more frequently demand a choice in treatment options. Although laparoscopic surgery appears to be minimally invasive, serious complications may occur. In a multi-institutional French study of 1085 laparoscopic procedures, the complication rate was 6.9% (75 complications) [4]. This consisted predominantly of minor surgical complications, like hematomas, urinomas and wound infections. Vascular and visceral injuries accounted for 24% of the complications. The mortality rate was 0.09% and the conversion rate 2.1%.

As minimally invasive surgery has become more common-place, increased emphasis has been placed on laparoscopic education. Because laparoscopy is an evolving technique with different instruments in a two-dimensional perception of surgical plane, traditional apprenticeship is not enough to master the technique and its possible per-operative complications. Various options for learning specific laparoscopic skills have been developed over the years, in which a division in clinical and non-clinical training can be made. Non-clinical training composes simulator models like a pelvic trainer, animal laboratory-based laparoscopic courses, didactic lectures and live case presentations. During clinical training there is the option of intra-operative teaching by means of a mentorship. In this way laparoscopic skills can be developed during a longer period of time and under the direct guidance and supervision of a colleague with laparoscopic expertise. Fellowship training or laparoscopic courses in centers of excellence are other clinical-oriented programs for attaining laparoscopic skills [5].

As the technique becomes more popular, practicing urologists are burdened with the problem of increasing numbers of urological patients suitable for laparoscopic surgery and the lack of expertise within their team. As mentioned above, specific laparoscopic training programs exist already for quite some time, but do trainees have enough access to these programs and are they sufficient enough to develop the skills needed? Furthermore, are they interested to master these skills and bring them in practice? In this survey we tried to find answers to these questions and evaluated the present use of laparoscopy and training programs in Europe.

2. Material and methods

During the XVIII Annual EAU Meeting in Madrid in 2003, the ESUT organized the exhibition 'The Garden of the Future' and invited urologists and other participants visiting it to fill out a questionnaire. The ESUT board defined the questions for this questionnaire (Appendix A).

The questionnaire consisted of 11 questions, of which most had a dual response option: yes or no. Two questions evaluating the importance of different training methods and different reasons not to be involved in laparoscopy, were assessed by means of a Likert type scale [6]. This scale was used for scoring respondent's attitudes about different training options and different reasons not to get involved in laparoscopy: 1 (least important), 2 (unimportant), 3 (neutral), 4 (important), 5 (most important). The survey consisted of four main sections:

1. Professional characteristics: The first section addressed information regarding professional characteristics of the respondent such as position, hospital setting (training versus community hospital) and involvement in a laparoscopic training program.
2. Present use of laparoscopy: The second section contained questions about the use of laparoscopy in all surgical departments, in the department of urology and the quantity of operators involved in urological laparoscopy.
3. Training facilities: In the third section the interest of each urologist regarding laparoscopic training facilities was evaluated. The availability and type of training (external versus internal) were addressed, as well as the importance of different training options according to the respondent.
4. Motivation for future laparoscopic activities: The fourth section addresses the question whether laparoscopy will replace open surgery in the future, if applicable, and lists reasons why practicing urologists would not want to get involved in laparoscopic surgery.

A database with all answers was built. The results of individual questions were included in the database even if the questionnaire was only partially completed. This was the case in three respondents. Descriptive statistics were used to summarize all relevant variables in the study.

3. Results

A total of 430 questionnaires were filled out by European urologists, residents and others, like scientists.

3.1. Professional characteristics

Of the respondents, 166 (38.6%) were urologists practicing in training hospitals and 155 (36.1%) were urologists in community hospitals. There were 65 residents in training (15.1%), 41 scientists (9.5%) and 3 non-responders (0.7%). The question of involvement in a laparoscopic training program was answered by 296 (68.8%) as positive, while 132 respondents