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ΕΡΕΥΝΗΤΙΚΗ ΕΡΓΑΣΙΑ

Establishment of the subspecialty of digestive Oncology-Gastroenterology in Greece

OBJECTIVE To record and analyze the views of Greek gastroenterologists on the establishment of the subspecialty of digestive oncology, and to describe their opinions about the specific role of gastroenterologists in the diagnosis and management of patients with digestive malignancies, as well as their proposals on these matters. **METHOD** A specially designed questionnaire covering all the parameters related to the diagnosis and treatment of patients with digestive malignancy was distributed to Greek gastroenterologists, members of the Hellenic Society of Gastroenterology. Their various opinions and proposals were recorded and analyzed. **RESULTS** It appeared that Greek gastroenterologists dedicate quite a small part of their daily work to digestive oncology in comparison with their colleagues in other countries. Most of the respondents believed that the gastroenterologist should be an integral part of a multi-disciplinary oncological team devoted to managing the patient with digestive malignancy as a whole. They considered the establishment of the subspecialty of digestive oncology in Greece to be necessary. **CONCLUSIONS** Most of the gastroenterologists in Greece agree with the necessity for the establishment of the subspecialty of digestive oncology. Their various proposals related to the appropriate training in digestive oncology and the ways of effectively applying the skills acquired during this training are analyzed.

The burden of digestive malignancies is increasing worldwide, despite the surveillance programs applied in many countries. Digestive malignancies now account for more than 3 million new cases each year globally. As the population is continuously aging, the number of oncologists will become insufficient to deal with all the patients diagnosed with digestive malignancies.

Cooperation between gastroenterologists, oncologists, surgeons, pathologists, radiotherapists and specialized nurses is of paramount importance for the correct diagnosis and effective treatment of patients with malignant digestive tumors.¹

In Greece, gastroenterology was recognized as a separate specialty in 1981, incorporating also hepatology. The term "digestive oncology" was introduced in 1988, when the Hellenic Society of Gastrointestinal Oncology (HSGO) was officially established.

Few data have been published in the international literature on the precise role of gastroenterologists in the prevention, diagnosis and treatment of patients with malig-

nant digestive neoplasms and there are no clear guidelines on the scope and methods of thorough, effective training in digestive oncology.²

The aims of this study were to record and analyze the views of Greek gastroenterologists regarding the formation of the subspecialty of digestive oncology, to elicit their opinions about the precise role of gastroenterologists in the diagnosis and management of patients with digestive malignancies, and to record and describe their proposals concerning these matters. The ultimate aim is that the findings of the study should be seriously taken into account and evaluated accordingly by the country's health authorities.

MATERIAL AND METHOD

Information was derived using a specially designed questionnaire which was sent electronically to all specialist gastroenterologists in Greece who were members of the Hellenic Society of Gastroenterology.

The content of the questionnaire covered a number of rel-

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evant parameters, including the scientific-oncological profile of the individual gastroenterologist, the use of chemotherapy in everyday clinical practice and involvement in clinical trials related to the epidemiology, diagnosis and treatment of malignant digestive tumors.

The responses of 175 gastroenterologists (122 men and 53 women, aged 43.7 ± 11.0 years, range 37–64 years), representing 29.2% of the total membership of the Hellenic Society of Gastroenterology, were analyzed.

RESULTS

The responses concerning various clinical and therapeutic interventions currently performed by Greek gastroenterologists, are summarized below.

Clinical interventions

The responses to questions on clinical interventions are summarized in table 1. The main proposal of all the gastroenterologists participating in the survey (100%) was the compulsory creation and functioning of "Oncology Councils" in all Greek hospitals, both private and state. These councils, consisting of an internist, a gastroenterologist, a surgeon of digestive system, a pathologist, a medical oncologist and a radiotherapist, as well as health professionals of other disciplines, such as a dietician or a psychologist, etc., would be charged with the main task of planning the most suitable therapeutic strategy for a given patient, which would then be applied and monitored in a compulsory way.

The survey revealed that almost half the responding gastroenterologists had participated (in the year 2014) in Oncology Councils functioning in their general hospitals. This finding could be characterized as at least promising.

Table 1. Responses of Greek gastroenterologists to questions on clinical interventions (n=175).

Question concerning the type of intervention	Proportion of positive respondents
Compulsory creation and functioning of Oncology Councils in all private and state hospitals	100%
Participation of gastroenterologists in Oncology Councils (2014)	49% for at least 2 times per month
Continuous dealing with patients suffering from malignant digestive tumors	$24.1 \pm 20.7\%$ (range: 5–100%)

The third major finding, also promising, was that at least one in four of the gastroenterologists is continuously dealing clinically with patients suffering from malignant digestive disorders.

Therapeutic interventions

Regarding therapeutic interventions in patients with digestive tumors, it was noted that the Greek gastroenterologists were actively involved in the treatment of only two digestive malignancies, namely colorectal cancer and hepatocellular carcinoma (tab. 2).

Participation in clinical trials devoted to the use of chemotherapeutic agents in patients with digestive tumors was reported by 29% of the respondents for colorectal cancer and 4% for hepatocellular carcinoma (tab. 2).

Regarding the adequacy of the scientific knowledge of the indications for chemotherapy for digestive tumors of the surveyed gastroenterologists, more than half reported satisfactory knowledge of the indications and the therapeutic protocols approved for chemotherapy in digestive tumors.

Training in digestive oncology

The views of the respondents concerning training in digestive oncology are summarized in table 3. As indicated, 57% of the surveyed gastroenterologists agreed with the establishment of the subspecialty of digestive oncology with adequate specialty training in specialized oncology centers, which 17% suggested should last for at least two years. The idea of dealing exclusively with digestive oncology was suggested by only 8% of the surveyed gastroenterologists, while 10% suggested dealing concurrently with the usual gastroenterology (benign digestive disorders).

Table 2. Responses of Greek gastroenterologists to questions concerning therapeutic interventions (n=175).

Type of intervention	Proportion of positive respondents
Adequate scientific knowledge of indications for chemotherapy for digestive tumors	57%
Regular prescription of chemotherapy in patients with digestive tumors on the basis of approved therapeutic protocols	Generally: 29% Prescription only for colorectal cancer or primary hepatocellular cancer: 4%
Participation in clinical trials on the use of chemotherapeutic agents in patients with digestive tumors	43%

Table 3. Responses of Greek gastroenterologists to questions concerning training in digestive oncology (n=175).

Type of intervention	Proportion of positive respondents
Necessity of the establishment of a subspecialty of gastroenterology-oncology	57%
Special two-year training (after gastroenterology specialization)	17%
Dealing exclusively with digestive oncology	8%

Other proposals

Other proposals of the surveyed gastroenterologists are summarized below:

- Treatment of malignant digestive tumors in general hospitals
- The application of chemotherapy, a therapeutic intervention which is quite expensive, requires special training (This was emphasized by all participants in the survey)
- The treatment of malignant digestive tumors should not be the responsibility of one physician, irrespective of specialty, but should be the work of the Oncology Council.

(It is of interest, however, that almost one in six respondents suggested that the therapeutic manipulation of all cases with malignant digestive tumors should be exclusively conducted by medical oncologists).

Education in digestive oncology

The suggestions concerning various aspects of education in digestive oncology are summarized as follows:

- Gastroenterologists need to be appropriately trained in the current methods of diagnosis and treatment of digestive tumors. There is a need for well-organized clinical wards and advisory Oncology Councils. It appears that the gastroenterologists have handed over a large part of the clinical work with patients with tumors to medical oncologists, who may not be adequately trained in the diagnosis and follow-up of malignant digestive tumors
- Training in digestive oncology must be included in the education of all trainee gastroenterologists. The European Board of Gastroenterology and Hepatology has proposed four special educational topics (advanced

curricula) besides the basic gastroenterology (core curricula) with the type and mode of education included in the new edition of the “Blue book” (2012).³ The adoption of the content of the “Blue book” by the Greek health authorities would probably solve the current problems and facilitate the creation of specialized oncology centers

- The current state of gastroenterology in Greece does not foster the development of skills that can be professionally consolidated. This does not exclude the necessity for creating conditions favorable for the “birth” of physicians with the skills of both endoscopist-gastroenterologist and oncologist
- The final year of the digestive oncology specialty should be spent in a specialized cancer hospital, where the endoscopists are able to perform a variety of endoscopic palliative techniques
- An oncologist should participate in the examination committee responsible for the nomination of the gastroenterology specialization
- A one-year fellowship in digestive oncology in a specialized oncology center should be available in Greece
- It is essential to reform the mode of involvement of gastroenterologists in the various aspects of digestive oncology, and to ensure the legal recognition of this involvement
- The subspecialty of oncology-gastroenterology should be completed only in a teaching hospital where, due to the large number of patients, the specialized gastroenterologist would be able to deal with cancer patients only
- The multi-disciplinary management of the patient by an Oncology Council represents the most important requirement for successful care of patients; a precondition that could be characterized as essentially absent in Greece, in private, state and as academic medicine
- Finally, the opposite view, expressed by 43% of respondents, is that actual training in digestive oncology should be only for oncologists, who would be supported by gastroenterologists adequately trained in palliative/therapeutic endoscopic procedures. This group suggests that as modern gastroenterologists have quite a wide range of duties, it would be meaningless to add activities that belong to other specialists.

DISCUSSION

It is common knowledge among the members of the

gastroenterology community that digestive oncology is underrepresented in the current training programs in gastroenterology, despite the fact that the proportion of patients with digestive cancer diagnosed by gastroenterologists is continuously increasing, and that oncology training is poorly defined.⁴

Currently, gastroenterologists are fully involved in the palliative treatment of patients, including endoscopic management, symptom relief and some other aspects of medical care.^{5,6} In contrast, during the last year of gastroenterology training in the Netherlands, the trainee doctor focused on digestive oncology, spending at least 6 sessions per week in oncology-related activities.⁷

Establishment of a subspecialty of digestive oncology

The present survey revealed that the establishment of the subspecialty of gastroenterology oncology in Greece emerges as an unavoidable need, and the administration of chemotherapy (preferably neoadjuvant) and or biological agents should be included in the digestive oncology training program, according to 57% of the gastroenterologists who participated in the study. However, in Greece it is paradoxical that the emerging needs, and not the "increasing burden in digestive cancer", are determining the conditions; for example, the treatment of hepatocellular carcinoma and endocrine tumors was in the past exclusively conducted by gastroenterologists, but the introduction of new, very expensive, treatment modalities resulted in the involvement of many other subspecialties. We must decide whether we really need the specialty of oncology in its present form, or whether chemotherapy should be included in the duties of other specialists, e.g., the gastroenterologists for digestive tumors, the rheumatologists for bone tumors, the pulmonologists for lung cancer, etc. The latter could mean the abolition of the specialty of oncology and the creation of a number of oncological subspecialties.

Several other disputes concerning the subspecialty of gastroenterology-oncology were raised in this survey. It is true that currently the specialty of gastroenterology requires an enormous amount of knowledge and continuous effort to keep up to date. It is also true that many gastroenterologists are lacking current knowledge in many areas of gastroenterology, as the specialty is continuously expanding both theoretically and practically. Although the creation of the subspecialty of gastroenterology-oncology is considered necessary, it appears that under present conditions the oncologist should decide the kind and type of treatment of patients with digestive malignancies, and coordinate the other supporting specialties.^{8,9}

Training in gastroenterology-oncology

The opinion of the participants in this survey was that the special training in gastroenterology-oncology should last for two years, after completion of the regular four-year course in gastroenterology, thus making a total duration of specialization of six years. This special training should take place in specialized hepatogastroenterology departments with a special interest in digestive oncology. The aim of this advanced training is to increase knowledge and skills in oncology beyond those obtained during the four years of regular gastroenterology training. In Greece, there are currently three oncological hospitals with a specialized gastroenterology department. Trainees in digestive oncology should complete two years in one of these Digestive Oncology Centers, after completing the basic gastroenterology course. In Belgium, candidates for the gastroenterologist-oncologist certification are required to fulfill one oriented year (focus year) during the main training period for gastroenterology specialization and one additional year. Six months of this training period must be spent in a medical oncology department. It is of note that, in order to maintain this recognition, more than 50% of the clinical work must be oncology focused.

Research

Doing research during training in digestive oncology is considered to be of paramount importance for trainees. This survey, however, revealed that only a very small proportion of gastroenterologists in Greece conducts research related to oncology, and an even smaller proportion participates in clinical trials of new drugs for the treatment of digestive malignancies. All respondents agreed that the involvement of trainees in research should be encouraged, wherever possible. Attending regional and national society meetings, and international oncology meetings must also be encouraged.^{10,11} Finally, they agreed that trainees should participate in the preparation of at least one scientific paper devoted to digestive oncology, and present at least one paper at a national or international meeting. A possible way of overcoming financial obstacles during the training period would be the creation of a master's diploma focused on advanced training modalities in digestive oncology.

Establishment of Oncology Councils

Among the main suggestions of the surveyed gastroenterologists were the establishment of the Oncology Council in each hospital, and the multi-disciplinary approach to management of the patient with a digestive tumor. The adoption of these suggestions would represent a valu-

able asset in the effective care of patients with digestive malignancy.

The concept that the management of digestive malignancies should be by an integrated multi-disciplinary approach has also been emphasized repeatedly in specialized digestive oncology meetings. The Pacific GI Oncology Summit Group in a special meeting held in 2011 proposed that "...in order to improve care to patients, a multi-disciplinary team coordinated by a "cancer therapist" (gastroenterologist or surgeon who has acquired special training in a center of excellence in cancer management), should be established..."¹² The value of this multi-disciplinary approach is further emphasized in some very recently published papers. Park and colleagues concluded that communication and coordination between gastroenterologists and other specialists, including oncologists and pathologists, is essential to ensure an appropriate direct and indirect biomarker evaluation for, e.g., gastroesophageal junction cancers, that could guide therapy.¹³

All these tasks should be supported and supervised by specialist scientific societies devoted to digestive oncology. In Greece, the term "digestive oncology" was introduced in 1988, when the HSGO was founded. Despite these efforts, most of which preceded the establishment of the European Society of Digestive Oncology (ESDO) in 2008, neither the necessity for, nor the content of digestive oncology training were defined in the curriculum of Greek gastroenterology specialization. Today, more and more national societies of gastroenterology have incorporated the digestive oncology concept and curriculum. The Romanian Society of Digestive Oncology, as a member of ESDO, was created in

2010.¹⁴ Moreover, Digestive Oncology is a part of the current gastroenterology curriculum in France and Germany.² The European Board of Gastroenterology and Hepatology has accepted the Digestive Oncology Advanced Module for Gastroenterologists in the new curriculum for the European Diploma.³ A number of other international organizations dedicated to digestive oncology were developed during recent years, indicating the growing importance of digestive oncology. Such societies include the International Digestive Cancer Alliance (IDCA) (foundation year 2002), ESDO (foundation year 2008), and the African Middle Eastern Society of Digestive Oncology (AMSDO) (foundation year 2008).

In conclusion, the findings of this survey suggest that training in digestive oncology and establishment of the subspecialty of gastroenterology-oncology are necessary to provide modern, effective diagnosis and treatment for patients with digestive cancer, including systematic follow-up after treatment. The training courses should be provided either in the gastroenterology departments of general hospitals with a special interest in digestive oncology, or in specialized cancer hospitals with established gastroenterology departments. The ESDO should be the formal consultant or supervisor of the training courses. Rotation of trainees through different units would be of value. It is apparent that with appropriate training, there is no reason for the next generation of gastroenterologists to be excluded from the administration of various anti-cancer therapies. Internationally recognized experts suggest that future leaders in digestive oncology must be skilled gastroenterologists and surgeons capable of conducting advanced endoscopy, performing laparoscopic techniques and administering image-guided therapy.¹⁵

ΠΕΡΙΛΗΨΗ

Δημιουργία υποειδικότητας «Γαστρεντερολογία-Ογκολογία Πεπτικού» στην Ελλάδα

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ΣΚΟΠΟΣ Η καταγραφή και η ανάλυση των απόψεων των Ελλήνων γαστρεντερολόγων σχετικά με τη δημιουργία της υποειδικότητας γαστρεντερολόγου-ογκολόγου του πεπτικού, η καταγραφή του ακριβούς ρόλου του στη διάγνωση και στη συνολική θεραπευτική αντιμετώπιση του ασθενούς με κακήθες νόσημα του πεπτικού, καθώς και η καταγραφή των απόψεών τους σχετικά με τις μεθόδους και τον τρόπο εκπαίδευσης των γαστρεντερολόγων-ογκολόγων του πεπτικού. **ΥΛΙΚΟ-ΜΕΘΟΔΟΣ** Καταγράφηκαν, ομαδοποιήθηκαν και αναλύθηκαν συστηματικά όλες οι προτάσεις και οι απόψεις των Ελλήνων γαστρεντερολόγων με βάση τις ατομικές τους απόψεις, όπως αυτές διατυπώθηκαν σε ειδικά σχεδιασμένο ερωτηματολόγιο στο οποίο κλήθηκαν να απαντήσουν ανώνυμα. **ΑΠΟΤΕΛΕΣΜΑΤΑ** Διαπιστώθηκε ότι οι Έλληνες γαστρεντερολόγοι αφιερώνουν μικρό μέρος της καθημερινής επιστημονικής τους ενασχόλησης

με την Ογκολογία του πεπτικού συγκριτικά με άλλες χώρες. Η μεγίστη πλειονότητά τους θεωρεί ότι ο γαστρεντερολόγος πρέπει να αποτελεί ένα αναπόσπαστο τμήμα της συνολικής αντιμετώπισης του ασθενούς από την ογκολογική ομάδα. Η πλειονότητα επίσης θεωρεί ως αναγκαία τη δημιουργία της υποειδικότητας γαστρεντερολόγου-ογκολόγου του πεπτικού υπό ορισμένες προϋποθέσεις (κυρίως όσον αφορά στον τρόπο εκπαίδευσης και στην απονομή του τίτλου της υποειδικότητας), αν και διατυπώθηκαν και αντίθετες απόψεις. **ΣΥΜΠΕΡΑΣΜΑΤΑ** Η πλειονότητα των Ελλήνων γαστρεντερολόγων συμφωνεί με τη δημιουργία της υποειδικότητας γαστρεντερολόγου-ογκολόγου του πεπτικού. Ικανός αριθμός προτάσεων σχετικά με τις ποικίλες παραμέτρους, κυρίως εκπαιδευτικές, της υποειδικότητας διατυπώθηκαν, οι οποίες θα πρέπει να τύχουν προσοχής τόσο από τις υγειονομικές αρχές της χώρας, όσο και από τις σχετικές επιστημονικές εταιρείες.

Λέξεις ευρητήριο: Γαστρεντερολογία, Γαστρεντερολόγος-ογκολόγος, Εκπαίδευση, Ογκολογία, Ογκολογία πεπτικού

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