



Evaluation of the Radiation Oncologists' Awareness and Needs about Geriatric Oncology: TROD-13-001 Study

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OBJECTIVE

There has not any formal education program covering geriatric oncology within Turkish Society for Radiation Oncology (TROD) residency programs similar with other countries. Developing geriatric knowledge could provide radiation oncologists to plan RT according to frailty status and geriatric syndromes. Learning specific needs of radiation oncologists (ROs) would allow TROD to arrange the existing education program according to the needs of society. The aim of this study is to determine the geriatric oncology educational needs and awareness of TROD members.

METHODS

We used an 18-item survey to collect cross-sectional opinion data from the members of TROD over 2 months. This quantitative survey was developed through discussions with the members of TROD Geriatric Oncology Working Group. Responses were analyzed with descriptive statistics and common themes.

RESULTS

Six hundred TROD members were contacted and 201 responded (34%). The most common age group was the ages of 40-49 years with a rate of 31.8%; this was followed by 23,8% aged <30 year. They stated that geriatric patients constitute 40.9% of their daily practice. It was observed that 62.4% had difficulty in making decisions in geriatric patient group, with whom they had such intense communication in daily clinic practice. More than half (62.4%) of responders had difficulty when managing the geriatric patients; 75% agreed additional geriatric training would be helpful.

CONCLUSION

There are significant deficiencies related to geriatric management of geriatric cancer patients within the TROD members. Most ROs agreed that it is important to integrate geriatric oncology training to improve and personalize the standards of geriatric patients.

Keywords: Education; geriatric oncology; needs; radiation oncology; survey.

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INTRODUCTION

Cancer is considered a disease of geriatric population. In Türkiye, 42% of new cancer cases and 62% of cancer deaths occur in people aged ≥ 70 years.[1] Elderly patients differ from young people in terms of biologically, functionally, psychologically, and socially requirements and they need to be evaluated with an interdisciplinary approach considering their needs.[2] Moreover, it is essential to select which patients have a longer life expectancy and would benefit from radical treatment approaches compared with patients who may not benefit from those radical treatments.[3] The geriatric population is heterogeneous, ranging from fit to frail and older adults are not well represented in clinical trials, especially in phase III randomized ones. This makes the assessment and intervention challenging when it comes to cancer diagnosis and treatment.

According to the United States statistics, the population aged 65 and over is projected to reach 74 million (20.6%) from 46 million (14.5%) from 2014 to 2030.. [4] From 2010 to 2020, it is estimated that the proportion of adults aged 65 and over who will receive radiotherapy as a cancer treatment will increase by 38%. [5] Radiation oncologists are commonly dealing with geriatric cancer patients due to the comorbid diseases complicating the required both radical surgery and chemotherapeutic applications.

To date, there is no formal curriculum in geriatric oncology within the radiation oncology (RO) residency programs in Türkiye. As a result, many radiation oncologists lack of an understanding of how to evaluate geriatric patients with cancer. As the population is aging, there may be a need to modify radiation treatment for especially geriatric frail cancer patients. Geriatric oncology knowledge, particularly related to geriatric assessment and geriatric syndromes, is very important for radiation oncologists and has not been properly addressed in the current postgraduate RO training programs nationwide. Future radiation oncologists will need to develop the skills and knowledge to modify radiation treatment regimens based on patients' geriatric assessment and their frailty.

An evaluation of the current literature demonstrated that there has been knowledge gaps and management difficulties pertaining to the geriatric assessment not only oncologist but also surgeons. This study aimed to evaluate both the awareness status and the knowledge gaps need to be closed among radiation oncologists to review and improve the current situation in Türkiye.

MATERIALS AND METHODS

We used an 18-item survey to collect cross-sectional opinion data from the members of Turkish Society for Radiation Oncology (TROD) over 2 months. This quantitative survey was developed through discussions with the members of TROD Geriatric Oncology Working Group by the help of feedback discussions from geriatric specialists. In addition, we evaluated the literature considering the relevant articles while creating the survey questions. The TROD geriatric oncology working group constructed a survey using Likert scale, multiple choice, and open-ended and demographic questions. The study was approved by the Ethics Committee of the Biruni University, Türkiye (Approval No. 2021/62-5).

The survey was pretested among a sample of 5 radiation oncologists from the member of TROD to ensure reliability and understanding of the survey content. The required changes were done according to pretest results. The electronic survey was finalized and distributed to all of the TROD members nationwide, through a survey link from Google Forms. TROD society had been contacted in advance and agreed to facilitate survey distribution to their members. The survey was accompanied by an introductory e-mail which explained the study rationale and invited the members to participate and to fill the survey. The survey was available in Turkish only.

Descriptive statistics were used to analyze the Likert scale and multiple choice questions. The percentage of respondents for each of the Likert scale options was calculated. Opinions expressed in open-ended questions were compiled and analyzed for common themes or topics.

RESULTS

TROD is the only official association representing ROs in Türkiye with approximately 600 members. The power analysis showed that minimum 25% of the number of members would be accurate in terms of statistical analysis. We aimed to reach as many members as possible by the help of mail and Whatsapp communications. As a result, a total of 201 responses were obtained, and response rate was 34%. When the distribution of ROs who filled out the survey was examined in terms of average age, the most common age group was the ages of 40–49 years with a rate of 31.8%; this was followed by 23,8% aged < 30 years and 22.3% aged 30–39 years. Partially experienced ROs, who were in 50–59 age group, were represented with a ratio of 19.6%. As shown in Table 1, 29.0% consisted of resi-

Table 1 Characteristics of the participants

Characteristic (n=201)	n	%
Age (year)		
<30	48	23.8
30–39	45	22.3
40–49	64	31.8
50–59	39	19.4
>59	5	2.5
Institution		
University hospital	99	49.2
Training and research hospital	69	34.3
State hospital	9	4.5
Private hospital	24	12.0
Academic degree		
Professor	34	17.0
Assoc Prof	22	11.0
Consultant	88	43.0
Resident	58	29.0
Experience (year)		
Training process	58	29.0
<5	14	7.0
5–10	36	18.0
10–20	51	25.0
>20	42	21.0
% of geriatric patients in daily practice		
10	45	22.3
10–25	82	40.7
25–50	51	25.4
50–75	20	10.0
75–100	3	1.6

dents who were still in the training process. It could be said that the survey cohort was consisting of relatively young ROs. About half of the participants (49.1%) were working in a university hospital; 34.3% of them work in training and research hospitals. Nearly half of them (43.7%) were RO consultants, followed by our RO residents with a rate of 28.3%. These rates were also parallel to their medical experience. Characteristics of the participants were summarized in Table 1.

As expected, 99.5% of the participants stated that they encountered the geriatric group in their daily practice. Considering the distribution of tumor localization areas of this geriatric patient group, 56.3% were thoracic cancers, 53.3% were genitourinary cancers, 39.1% were breast cancers, and 31% were head-and-neck cancers. The most commonly seen diagnosis for geriatric group was given lung cancer in our survey. They stated that geriatric patients constitute 40.9% of their daily practice. It was observed that 62.4% had difficulty in making decisions in geriatric patient group,

with whom they had such intense communication in daily clinic practice. Despite this, 85.4% of them pointed out that they make the treatment decision independent of the patient's age.

It was seen that 62% of the participants did not use any special evaluation tool for geriatric cancer patients in their treatment decisions. The most used scale for geriatric patients was Karnofsky Performance Scale (KPS) (13.5%). Therefore, 85% of them stated that it would be appropriate to evaluate geriatric patients from the perspective of an experienced physician in the field of geriatric age. While 47.7% of them did not have a specialist in geriatric age in their institution, only 34.3% of them had a geriatrician in their institution. The interesting thing was that 18% of them did not know whether there was a geriatrician in their institution even though it was needed. It was found necessary by 75% of the participants to include geriatric training in their RO residency training program. In geriatric patients, 71.6% of the participants stated that they had difficulties in the management of side effects. This could be the first reason that they stated to need a residency training program about geriatric age. In addition, the most difficult issues in geriatric patient management were comorbid diseases (73.1%), care support (64%), systemic treatment side effects (59.9%), and compliance with treatment (48.2%). 98.5% of the responders thought that a comprehensive evaluation was necessary before starting the treatment. Again, 99% considered that the geriatric patient group would take place more in our daily practice in the coming years. Therefore, 86.3% concluded that they need a guide to manage geriatric patients (Table 2).

DISCUSSION

Our study evaluated the current awareness status of the TROD members regarding the geriatric cancer patients. We defined some gaps that hopefully could be completed with required residency training and awareness to allow RO to better assess the geriatric cancer patients who need to be treated with RT. An important point to keep in mind is that, Hsu[6] further supports the need for supplemental training in geriatric medicine and oncology and recognized that by default, oncologists are geriatric oncologists since the majority of their patients are geriatric age.

It is undisputed that making the right treatment decision in a geriatric cancer patient should start with a serious general performance assessment by a

Table 2 The distribution of the participants according to the questions regarding geriatric oncology

Characteristic (n=201)	n	%
Do you have difficulty in making the treatment decision of your geriatric patients?		
Yes	127	63.2
No	74	36.8
Does patient age affect your treatment decision?		
Yes	169	84.0
No	31	16.0
Which assessment scale do you use when making treatment decisions for your geriatric patients?		
None	125	62.0
KPS	27	13.5
G8	20	10.0
GPI and others	29	14.5
Would you like the geriatric patient to be evaluated by an experienced physician before the treatment?		
Yes	171	85.0
No	30	15.0
Is there any geriatrician in your institution?		
Not know	36	18.0
Yes	69	34.3
No	96	47.7
Should geriatric training be included in the residency training program?		
Not know	29	14.5
Yes	151	75.0
No	21	10.5
Do you find it difficult to manage the side effects of your geriatric patients?		
Yes	144	71.6
No	57	28.4

geriatrician perspective. Therefore, we asked TROD members which assessment scale they use commonly in their practice when making treatment decisions in geriatric cancer patients. We have encountered a serious problem that needs to be resolved. In our survey, where 85.4% of the participants stated that they made decisions independent of age, it was seen that 63.5% of the participants did not use any special performance scales for geriatric cancer patients. Regardless of that, the commonly used evaluation scale was KPS is able to identify the patient functional status; however, it is lack the sensitivity to detect geriatric syndromes and to be a useful prediction tool assess-

ing patients' suitability for oncology treatment. The KPS allows patients to be classified according to their functional impairment, which helps to assess the prognosis in individual patients and compares the efficiency of various therapies. The lower the KPS score, the lower the chances of survival for severe illnesses. [7] Although KPS indicates degree of functional performance status, it is not specific to geriatric patients and do not evaluate geriatric syndromes specifically.

Geriatric evaluation scales, used for determining geriatric patients, were used to inform participants concerning geriatric evaluation tools for this study. Decoster et al.[8] evaluated 17 developed screening tools for multidimensional health problems providing a geriatric assessment in geriatric cancer patients. They concluded that screening tools do not replace geriatric assessments, but they are recommended in a busy practice to identify patients who require a full geriatric assessment. In addition, Korc-Grodzicki et al.[3] pointed out that the geriatric assessment evaluations could be used to create treatment strategies to alleviate reversible deficits and assist clinicians to stratify patients before any potentially high-risk treatment.

In this current evaluation, most commonly used assessment tool specific for geriatric cancer patients was the G8 screening scale. The G8 screening scale is presented to evaluate geriatric cancer whether those are suitable for intensive treatment by giving a score related with the vulnerability of the geriatric patients. Hamaker et al.[9] examined the G8 screening scale with regard to select fragile geriatric patients with hematologic cancers that require to tailor their treatment plan. They concluded that the G8 scale seems to predict prognosis effectively and could be useful for future treatment managements in terms of geriatric oncology.

Additional geriatric screening tools including the VES-13, gait speed, and others are in use in clinical geriatric oncology clinics.[10] The literature, however, is unclear which of these instruments is superior and should be recommended in clinical settings. It was seen our evaluations results that those kind of different geriatric screening scales were not known widely among our society members. As a result of 62.4% of participants indicated that they have difficulty making a decision for geriatric patients, geriatric assessment tool must find a place in the curriculum of RO residency. There seems to have more important place in our clinic life, so we have to fill this gap with geriatric oncology education.

Another important issue regarding geriatric oncology is managing the adverse effects of the treated

patients. Now, we know for sure that ROs are commonly deal with geriatric patients and those are mostly vulnerable to treatment than the young adults.[11] In these presented data, 71.6% of the participants stated that they were forced into the adverse effect management while treating geriatric patients. Considering that it was stated that the 84% of treatment decisions were made independent of age, selection of the right patient for treatment and education on issues specific to the geriatric patient group are of critical importance. [12] Rostoft et al.[12] emphasized that better geriatric assessment results better treatment management. We need to organize joint interdisciplinary courses which should include all the members dealing with geriatric patient health. Closer collaboration with the geriatric teams in multidisciplinary clinical models including the nurses, physiotherapists, and geriatricians could facilitate the decision-making for treatment of geriatric patients undergoing RT.[13] As we saw our survey results that 48.5% of the participants did not have a geriatric specialist in the institution where they worked, while 16.7% did not have knowledge on this subject. Similar problem was emphasized in the paper written by Morris et al., recently.[14] We need to organize more courses and to attend more seminars to educate our society concerning the problems and issues of geriatric patients. Lester et al.[15] described physiologic changes in older adults, historical trends in geriatric training, and propose solutions for this looming crisis. This crisis could affect our geriatric cancer management during RT treatment. As stated by 73.1% of the participants, the most common problem in treating geriatric patients was the management of comorbidities during treatment. If we want to have a geriatrician perspective and to get used to looming crisis, we should enrich our training programs on geriatric patient needs and management.[15] There is no standard training in geriatric medicine in RO programs across the worldwide; it would be beneficial to clarify how these geriatric oncology curriculum programs could better be process through the formal or informal education.

As with all survey methodology, there some limitations of this current research. Although the number of patients participating in the study seems relatively limited (n=201), it can be though appropriate if we consider that the number of our association members is not high (not more than 600). In addition, the participants were representing an important proportion of those potentially eligible for treating geriatric patients in different part of Türkiye. Thus, the results could be generalizable to RO in Türkiye as a whole.

CONCLUSION

The treatment of geriatric cancer patients could really be challenging due to the specific problems of this group, requiring serious geriatric assessments to provide personalized treatment options, and improve both treatment compliance and outcome. Geriatric oncology constitutes an increasing importance in RO curriculum. There are significant gaps specific to geriatric assessment and management of geriatric cancer patients in RO curriculum in Türkiye. The majority of RO both specialists and residents agreed it is important to integrate geriatric oncology training to improve and personalize their treatment and management.

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