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**A new perspective on the future of Turkish Society for Radiation Oncology: Young Radiation Oncologists Group (TROD/GROG 001)**

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**Abstract**

Radiation oncology is a field of medicine that has been rapidly growing with advances in technology, radiobiology, treatment algorithms and quality of life of modern radiotherapy over the last century. In the context of these advances, it is critical to be aware of the role of the young radiation oncologists and enable them to discover new perspectives. For this purpose, “The Young Radiation Oncologists Group” (GROG) has been established by the Turkish Society for Radiation Oncology (TROD), a subgroup which has focused on the professional developments, early career and integrating into the TROD family while supporting education and innovative research of young radiation oncologists. The purpose of this paper was to outline the structure and responsibilities of GROG and its scientific and social activities within TROD and in its own right.

**Key words:** radiation oncology; radiotherapy; scientific society; education; young radiation oncologist

## **Introduction**

The field of radiation oncology has been rapidly growing over the last two decades thanks to breakthroughs in modern radiotherapy techniques, advanced treatment planning systems, imaging methods, molecular and clinical radiobiology, treatment algorithms and quality of life [1–5]. In the light of these advances, the transformation of young radiation oncologists into ever-improving and adapting team leaders started to play a much more critical role for the future of radiation oncology [6]. Therefore, the communication between young radiation oncologists and experts became more crucial than ever. As highlighted in the yESTRO Committee’s 2030 vision, young radiation oncology professionals are being prepared to lead ESTRO and the profession into the 2030s [7]. Young committee of ESTRO engages in educational activities on online learning and collaborates with the National Societies (NS) and supports the creation of young groups at the national level by assuring a high level of relevance of ESTRO for young members in the field of radiation oncology in terms of educational, scientific and professional issues [7]. In this context many European organizations took this opportunity to create internal groups for their young radiation oncology scholars [8–13]. In the context of these visionary developments the Turkish Society for Radiation Oncology (TROD) has created “The Young Radiation Oncologists Group” (GROG) initiative to support early career and professional development, scientific research and education as well as recognizing the TROD family.

The purpose of this paper was to outline the structure and responsibilities of GROG and its scientific and social activities within TROD and in its own right.

## **Materials and methods**

We retrospectively reviewed the scientific and social activities of GROG between 2017 and 2022 to provide an inclusive description of its promising role in society, vision and strategic approach.

## **Results**

### ***History and Management***

GROG started as an online volunteer network for radiation oncologists within TROD in 2017. Initially, radiation oncologists under 45 years of age and all residents in training were invited to the group. The primary responsibilities of GROG are:

- to provide a networking platform for young radiation oncologists;
- to organize regular scientific and social events;
- to seek solutions for problems regarding the members' institutions and to evaluate suggestions and requests about the TROD activities;
- to provide self-awareness on the field-specific developments and encourage sharing them with the other members

However, following the 2021 TROD board elections, the GROG instruction was changed, and membership requirements for GROG were narrowed down to being a TROD member under the age of 40 or being a specialist in the first five years of their profession. Therefore, according to the new instructions, the current GROG coordinator, who is also a TROD board member, former GROG coordinator, representatives of residents and specialists in TROD were the four natural members of the GROG executive board. Since 2022, GROG has become a populous young group with 315 members.

### ***Activities***

So far, four scientific meetings have been organized by GROG in different regions of Turkey. The 1<sup>st</sup> GROG meeting, "Radiotherapy and Nutrition in Upper Gastrointestinal System Cancers", was held in Erzurum, Turkey, on 6 January 2018. This meeting paved way to scientific collaboration and social unity among young radiation oncologists from many regions around the country.

The 2<sup>nd</sup> GROG meeting entitled "Treatment Approaches in Bladder and Testicular Tumors and the Importance of Nutrition in Simultaneous Chemoradiotherapy" was held in Trabzon, Turkey on 22 September 2018.

Moreover, the 3<sup>rd</sup> GROG meeting, named “Spring School of GROG”, was about treatment, side effects, and nutrition under the evidence-based medicine guidance and held in Mardin, Turkey, on 22-23 March 2019.

After the end of restrictions imposed due to the coronavirus 2019 disease (COVID-19) pandemic, the 4<sup>th</sup> GROG meeting, “New Visions in Radiotherapy”, was held in Hatay, Turkey, on 01–02 October 2021. The meeting was focused on integration of artificial intelligence in radiation oncology. Besides scientific context, all GROG meetings were enriched with cultural tours which allowed essential collaboration, especially between the young and senior members of the society. We believe that the cultural tours assist young radiation oncologists to merge with the seniors in the society.

In addition to scientific meetings, three national studies have been conducted by GROG. Two of these were survey studies, and one of them has already been published [14]. In addition, another project titled “Do Radiation Oncologists Publish What They Present? An Observational Analysis of Abstracts Presented at The Radiation Oncology Congresses in Turkey: A Young Radiation Oncologists Group Study” has been submitted for publication.

### ***Educational programs***

The rapid advances in radiotherapy technology in the last two decades require radiation oncologists to continuously update themselves scientifically and adapt to new developments in their daily practice. As of 2021, in Turkey, 146 institutions have the ability to provide radiotherapy treatments, whereas only 40 of them could provide an official radiation oncology residency program. Moreover, radiotherapy technology is not equal in all clinics, and some specific treatment modalities are performed only in several experienced centers. To provide equal opportunity in education regarding specific treatments, TROD will start a national short-term observation program countrywide.

In a 2018 online survey, radiation oncology (RO) professionals under 40 years of age from 34 European countries were invited to answer questions regarding demographics data, organization, content, quality and potential improvements of national education programs [15].

Only five participants declared their countries had implemented the ESTRO Core Curriculum. Although there is no data to evaluate the differences between countries, a quarter of the participants stated that they had an inadequate education program [15]. The first version of the ESTRO Core Curriculum was published in 1991, and the 4th edition was updated in 2019

and has been endorsed by 29 national associations to date [16]. In Turkey, the first core curriculum was created in 2006 based on ESTRO Core Curriculum and finalized within the framework of national standards based on the level and knowledge of skills necessary defined by TROD in 2011. The Core curriculum is updated annually, and the last update was made in 2022.

The restrictions imposed due to the COVID-19 pandemic prevented in-person meetings and large gatherings. However, TROD turned this condition into an advantage by utilizing online platforms that allowed everyone to attend meetings regardless of their location. Regular interactive “Journal Clubs” were performed online under the supervision of the “Journal Club Committee”, another GROG subgroup, to discuss the recent original articles that may affect our routine daily practice. In addition, another GROG subgroup online meeting series called “Online Tumor Boards” was formed to allow young radiation oncologists, who work in small towns and do not have a senior attending physician, to consult on difficult oncological cases. GROG has also organized a mentoring program to match young radiation oncologists with seniors who are competent in research. The primary purpose of this program was to guide and improve young professionals in areas such as patient data analysis, biostatistics, literature review, and article writing, which are the cornerstones for an academic career. In addition, this mentoring initiative also provides an opportunity to learn the principles of academic teamwork. This way, it will be possible to connect with the senior mentors and their institutions and work in harmony.

Furthermore, preclinical animal studies, which have complex legal and ethical regulations because of the complicated procedures performed on live animal species, require special knowledge about the care of experimental animals and the selection of appropriate animals for study use. Therefore, GROG organized another subgroup to work on animal experiments and scheduled regular education programs to guide young radiation oncologists to conduct experimental and scientific studies.

Although the pre-pandemic in-person scientific meetings were transferred online during the COVID-19 lockdown, TROD, knowing the value of in-person training and interactions, has already started planning in-person meetings in various subjects for the progression of young radiation oncologists in the near future.

### ***Future perspectives***

Future projects of GROG are to build up collaboration with other young specialists involved in cancer care. Therefore, every effort should be taken to participate in multidisciplinary

groups and to collaborate with other national disciplines' young oncologist groups to build a social and scientific network. Additionally, TROD and GROG will support the young researchers to join international fellowship or observership programs to improve and share knowledge with their young colleagues worldwide. In a survey analysis performed by ESTRO national societies committee (NSC) to understand general principles, activities, needs and priorities of each national society, a total of 58 (including TROD) out of 89 NS from 31 European countries ranked sections in order of importance [17]. According to the ESTRO vision for 2030, all NS have adopted the principle of 'Optimal health for all together' [18]. However, the most frequently selected needs instead of 'optimal health for all together' were: improved access to guidelines, access to high quality accredited education and support for innovative research. Analyzing demographic structures of NS, only 33% of them had young members group, this may be related to already having low membership. We believe that enhancing interaction between Estro young and NS with the aim of supporting young professionals' needs and expectations at the early stages of their careers will encourage the establishment of young groups. In this framework, GROG is dedicated to organize national and international educational activities for young members and will support the increasing participation in ESTRO activities.

Diversity, Equality and Inclusion (DEI) in the medical workforce has been shown to be linked to patient care and innovation [19,20,22]. The American Society for Radiation Oncology (ASTRO) has defined diversity and inclusion as core values of the organization since 2017 [21]. Furthermore, ASTRO has long had a committee that focuses on diversity, health equity and inclusion initiatives for the organization [21]. A recent survey performed by yESTRO and NS committees showed that activities to evolve DEI among RO professionals in Europe are essential, in particular among minority groups [22]. This analysis has demonstrated the necessity of DEI in developing future projects. In this regard, we aim to promote DEI and increased workforce engagement to reach the highest quality of patient care and provide opportunities for professional development.

## **Conclusion**

GROG under the supervision of TROD has made significant progress in fulfilling both scientific and social requirements of the field despite being a new community. Moreover, the implementation of the planned projects is expected to provide positive social and scientific interaction opportunities for young radiation oncologists working in different regions of Turkey and all over the world.

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