SHORT COMMUNICATION

Gastrointestinal Tumor Board: An Evolving Experience in Tehran Cancer Institute

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Abstract- Gastrointestinal (GI) cancers are a significant source of morbidity and mortality in Iran, with stomach adenocarcinoma as the most common cancer in men and the second common cancer in women. Also, some parts of Northern Iran have one of the highest incidences of esophageal cancer in the world. Multi-disciplinary organ-based joint clinics and tumor boards are a well-recognized necessity for modern treatment of cancer and are routinely utilized in developed countries, especially in major academic centres. But this concept is relatively new in developing countries, where cancer treatment centres are burdened by huge loads of patients and have to cope with a suboptimum availability of resources and facilities. Cancer Institute of Tehran University of Medical Sciences is the oldest and the only comprehensive cancer treatment centre in Iran, with a long tradition of a general tumor board for all cancers. But with the requirements of modern oncology, there has been a very welcome attention to sub-specialized organ-based tumor boards and joint clinics here in the past few years. Considering this, we started a multi-disciplinary tumor board for GI cancers in our institute in early 2010 as the first such endeavor here. We hereby review this 2-year evolving experience. The process of establishment of a GI tumor board, participations from different oncology disciplines and related specialties, the cancers presented and discussed in the 2 years of this tumor board, the general intents of treatment for the decisions made and the development of interest in this tumor board among the Tehran oncology community will be reviewed. The GI tumor board of Tehran Cancer Institute started its work in January 2010, with routine weekly sessions. A core group of 2 physicians from each surgical, radiation and medical oncology departments plus one gastroenterologist, GI pathologist and radiologist was formed, but participation from all interested physicians was encouraged. An electronic database was kept from the beginning. The number of patients presented in the tumor board increased from 4 in January 2010 to 16 in December 2011. Most patients were presented by radiation oncology department (38%) and then surgical (36%) and medical oncology (20%) departments. Physicians' participation also grew from an average of 8 each session to 12 in the same months, with a number of cancer specialists taking part from other university hospitals in Tehran. A total number of 225 patients were presented with a treatment decision made in this 2-year period. The majority of cases were colorectal (32%), stomach (23%), and esophageal (17%) cancers. The number of pancreatic (7%) and hepatobiliary (6%) cancers were much smaller. Most decisions were for a primary treatment (surgery or radiochemotherapy) and then a neoadjuvant approach. Tehran Cancer Institute's GI tumor board is one of the first multi-disciplinary organ-based tumor boards in Iran, and as such has made a successful start, establishing itself as a recognized body for clinical decisions and consultations in GI oncology. This experience is growing and evolving, with newer presentation and discussion formats and adapted guidelines for treatment of GI cancers in Iran sought.

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Keywords: Gastrointestinal cancer; Multidisciplinary cancer management; Tumor board

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Introduction

Gastrointestinal (GI) cancers are a significant source of morbidity and mortality in Iran, with stomach adenocarcinoma as the most common cancer in men and the second common cancer in women. Also, some parts of Northern Iran have one of the highest incidences of esophageal cancer in the world.

Since the early 1990s, significant advances have been made in cancer management. Increased specializations within disciplines and more sophisticated treatment techniques have increased the complexity of patient care. As a result, patient management has become very multidisciplinary, with the concept of multidisciplinary cancer tumor boards (MDT) or multidisciplinary cancer conferences (MCC) (1-3,7,8).

MDT is considered as a "group of people of different health care disciplines, which meets together at a given time (whether physically in one place or by video or teleconferencing) to discuss a given patient and who are each able to contribute independently to the diagnostic and treatment decisions about this patient" (1,2,4-7,9).

Multi-disciplinary organ-based joint clinics and tumor boards are a well-recognized necessity for modern treatment of cancer and are routinely utilized in developed countries, especially in major academic centers. But this concept is relatively new in developing countries, where cancer treatment centers are burdened by huge loads of patients and have to cope with a suboptimal availability of resources and facilities (3,7).

Cancer Institute of Tehran University of Medical Sciences is the oldest and the only comprehensive cancer treatment center in Iran, with a long tradition of a general tumor board for all cancers. But with the requirements of modern oncology, there has been a very welcome attention to sub-specialized organ-based tumor boards and joint clinics here in the past few years. Considering this, we started a multi-disciplinary tumor board for GI cancers in our institute in early 2010 as the first such endeavor here for this group of malignancies. We hereby review this 2-year evolving experience.

Materials and Methods

The process of establishment of a GI tumor board, participations from different oncology disciplines and related specialties, the cancers presented and discussed in the 2 years of this tumor board, the general intents of treatment for the decisions made and the development of interest in this tumor board among the Tehran oncology community is reviewed here. A computerized database of the main patient and tumor characteristics, the question asked form the tumor board and the decision made was kept from the beginning, which was used extensively for this short review.

Results

The GI tumor board of Tehran Cancer Institute started its work in January 2010, with routine weekly sessions. A core group of 2 physicians from each surgical, radiation and medical oncology departments plus one gastroenterologist, GI pathologist and radiologist was formed, but participation from all interested physicians was encouraged.

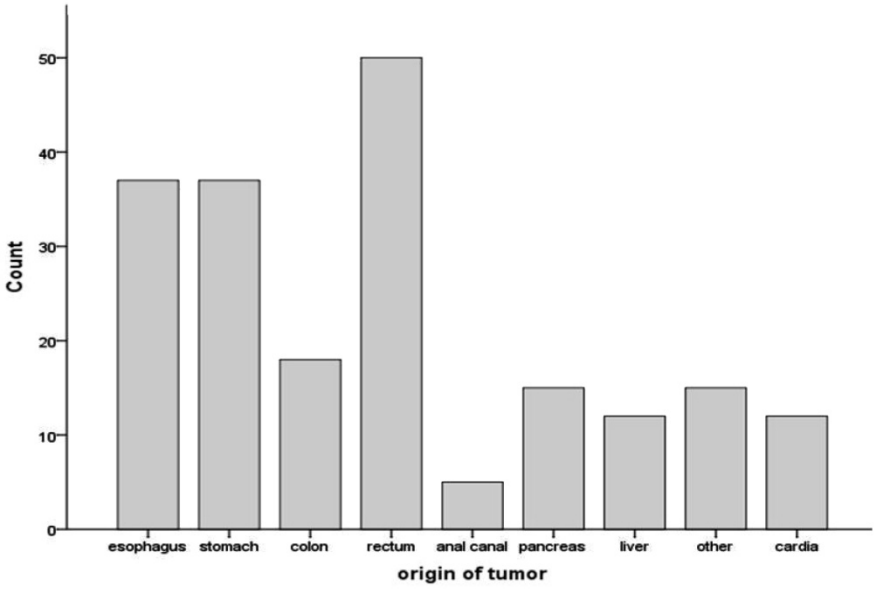

Figure 1. The primary site of the tumors presented in the GI tumor board.

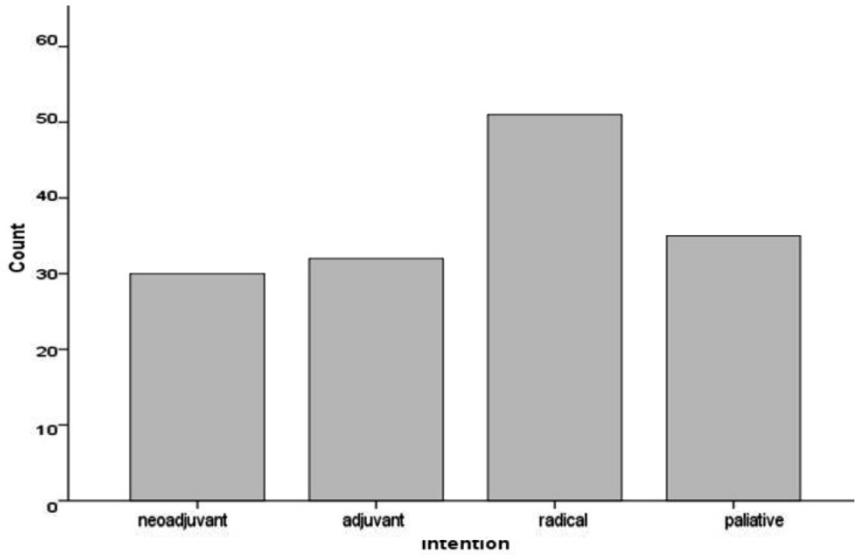

Figure 2. The intention of treatment for the decisions made in the GI tumor board.

We collected data for 225 patients in 2 years of weekly sessions of the GI tumor boards. Of these patients, 60% were male; mean age was 59 years (range 16 to 85 years).

The number of patients presented in the tumor board increased from 4 in January 2010 to 16 monthly in December 2011. Most patients were presented by radiation oncology department (38%) and then surgical (36%) and medical oncology (20%) departments. Physicians' participation also grew from an average of 8 each session to 12 in the same months, with a number of cancer specialists taking part from other university hospitals in Tehran.

The majority of presented cases were colorectal (32%), stomach (17%), and esophageal (17%) cancers. The number of pancreatic (7%) and hepatobiliary (6%) cancers were much smaller (Figure 1).

Most decisions were for a primary treatment (surgery or radiochemotherapy) and then a neoadjuvant approach. Intension of treatment for the cases is shown in Figure 2.

Discussion

With the significant advances made in cancer management, increased specialization within disciplines and more complex treatment techniques have increased the sophistication of patient care. Thus, the nature of patient management has become very multidisciplinary, leading to the concept of multidisciplinary cancer conferences and tumor boards. This is becoming quite routine in developed countries but is relatively new for our academic centres in the developing world (1).

El Saghir *et al*., reviewed utilization of cancer tumor board in Middle East countries with a focus on Arab countries. Nearly 338 oncology specialists from various Arab countries were asked about cancer tumor boards. While 72% of respondents reported having a MDT, only 49% reported that their tumor boards met on a weekly basis (3,7).

The role of MDTs is much more pronounced in GI cancers which are mostly treated by a multi-modality approach combining surgery, radiotherapy and chemotherapy. Van Hagen et al determined the effect on clinical decision making of an MDT for patients with upper GI malignancies. Their results showed that in over one-third of 252 cases of Rotterdam esophageal tumor boards, the diagnostic work-up or treatment plan was altered after evaluation by a MDT. This study supports Dutch guidelines recommending discussion of patients with upper GI malignancies by a MDT (2,8).

Crocke *et al*., collected 30 papers about multidisciplinary cancer tumor boards and conferences indexed from 1950 to 2010 in Medline. Their literature review shows that MCCs are important to clinical decision-making and patient management because they provide an opportunity for health care professionals to review cases, re-evaluate radiology and pathology reports, and discuss various treatment options. There is also strong evidence to show that MCCs significantly influence clinical decision-making (1). In contrast, according to review by Fleissig *et al.*, the published literature provides little evidence that MCCs actually improve patient outcomes or survival (9). We think that with the wide-spread use of the multidisciplinary

approach to cancer management and specially GI tumors and the publication of results obtained, the positive effect of multidisciplinary care on the patient outcomes will be easier to demonstrate. In c**onclusion,** Tehran Cancer Institute's GI tumor board is one of the first multi-disciplinary organ-based tumor boards in Iran, and as such has made a successful start, establishing itself as a recognized body for clinical decisions and consultations in GI oncology. This experience is growing and evolving, with newer presentation and discussion formats and adapted guidelines for treatment of GI cancers in Iran sought.

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