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SPECIAL REPORT

Follow-up after gastrectomy for cancer: the Charter Scaligero Consensus Conference

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Abstract
Purpose Presently, there is no scientific evidence supporting a definite role for follow-up after gastrectomy for cancer, and clinical practices are quite different around the globe. The aim of this consensus conference was to present an ideal prototype of follow-up after gastrectomy for cancer, based on shared experiences and taking into account the need to rationalize the diagnostic course without losing

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the possibility of detecting local recurrence at a potentially curable stage.
Methods On June 19–22, 2013 in Verona (Italy), during the 10th International Gastric Cancer Congress (IGCC) of the International Gastric Cancer Association, a consensus meeting was held, concluding a 6-month, Web-based, consensus conference entitled "Rationale of oncological follow-up after gastrectomy for cancer."
Results Forty-eight experts, with a geographical distribution reflecting different health cultures worldwide, participated in the consensus conference, and 39 attended the consensus meeting. Six statements were finally approved, displayed in a plenary session and signed by the vast majority of the 10th IGCC participants. These statements are attached as an annex to the Charter Scaligero on Gastric Cancer.
Conclusion After gastrectomy for cancer, oncological follow-up should be offered to patients; it should be tailored to the stage of the disease, mainly based on cross-sectional imaging, and should be discontinued after 5 years.

Keywords Gastric cancer · Follow-up · Surgery · Cross-sectional imaging · Upper gastrointestinal tract endoscopy · Prognosis · Chemotherapy · Tumor markers

Introduction

The Charter Scaligero on Gastric Cancer (see http://www.gircg.it/news/the_charter_scaligero_on_gastric_cancer) has been developed by a panel of international experts who, after a Delphi technique exercise lasting several months, finally gathered at a consensus meeting in Verona (Italy) on June 22, 2013 during the 10th International Gastric Cancer Congress (IGCC). The aim of the charter is to lay the foundations for articulating a common universal vision, implementing global standards of effectiveness and efficiency in the struggle against the effects of gastric cancer, with the ultimate scope of ameliorating the quality of life of people with the disease.

One of the main debated points in the clinical path of patients with gastric cancer concerns the practice of follow-up after gastrectomy. Many retrospective series have demonstrated that diagnosing tumor recurrence in the asymptomatic phase does not result in an improved survival. However, clinical practice guidelines in many high-volume centers state patients should be submitted to regular clinical and instrumental postoperative checks with the aim of minimizing the nutritional sequelae of gastrectomy and the timely diagnoses of tumor recurrence. High-grade evidence on this topic is unlikely to be achieved by randomized con-

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trolled trials; thus, the maximum evidence we could deal with would be reached by a consensus of experts.

Therefore, one of the 15 articles of the Charter Scaligero on Gastric Cancer has been devoted to the rationale and limits of oncological follow-up after gastrectomy for cancer.

Method

1. Appointment of a restricted working group by the IGCC Scientific Committee (December 1, 2012).
2. Production of a preliminary document by the Restricted Working Group, highlighting the main relevant data in the literature and the unsolved clinical issues, presented in the form of seven working questions (January 20, 2013) (Table. 1).
3. Restricted Working Group suggestion to the IGCC Scientific Committee of a list of names as invited experts in an enlarged working group (March 15, 2013).
4. Enlarged Working Group members confirmed their participation and acceptance of the rules of the Web-based consensus conference (April 15, 2013) (Table 2).
5. Through the Delphi method any member of the Enlarged Working Group has blindly answered the working questions and reviewed the statements issued by the Restricted Working Group (June 4, 2013).
6. The Charter Scaligero on Gastric Cancer, including the Annex, entitled “Rationale and limits of oncological follow-up after gastrectomy for cancer” and composed of six statements (the panel approved the merger of working questions 4 and 5 into a single statement), was reviewed in a reserved workshop held during the congress by the representative panel of specialists who participated in the exercise for formal endorsement (June 21, 2013), and it was thereafter presented and displayed for open discussion during the consensus meeting. All the participants at the 10th IGCC were allowed to sign the document (June 22, 2013).

Working questions and approved statements

Question 1: Should patients be completely lost after radical surgery and possible adjuvant chemotherapy?

Statement 1

There is no evidence that routine follow-up after curative treatment of gastric cancer (R0 resection with or without

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adjuvant therapy) is associated with improved long-term survival. However, routine follow-up should be offered to all patients for oncological (detection and management of cancer recurrence), gastroenterological (endoscopic surveillance and management of postgastrectomy symptoms), research (collection of data on treatment toxicity, time to and site of recurrence, survival, and cost–benefit analyses), and pastoral (psychological and emotional support) reasons. Follow-up should include lifetime monitoring of the nutritional sequelae of gastrectomy, including, but not limited to, adequate vitamin B_{12}, iron, and calcium replacement.

Question 2: Should follow-up be done exclusively by a general practitioner instead of a surgeon, oncologist, or gastroenterologist?

Statement 2

Follow-up should be offered by members of the multidisciplinary team who performed the initial diagnosis, staging, and treatment, including the gastroenterologist, the surgeon, the medical and radiation oncologists, and the general practitioner.

Question 3: Should follow-up be differentiated on the basis of recurrence risk?

Statement 3

Follow-up of patients following curative treatment of gastric cancer should be tailored to the individual patient, to the stage of their disease, and to the treatment options available in the event that recurrence is detected.

Question 4: Should only clinical checks be done during follow-up?

Question 5: Should advanced imaging techniques be regularly prescribed during follow-up?

Statement 4

Physical examination rarely detects asymptomatic recurrence of gastric cancer. A follow-up program intended to detect asymptomatic recurrence should be based on cross-sectional imaging. There is no evidence that intensive cross-sectional imaging surveillance of gastric patients is associated with improved long-term survival. However, as a matter of clinical care following curative treatment of gastric cancer, it is reasonable to prescribe periodic imaging at a frequency consistent with recurrence risk. The incremental value of screening for elevated levels of biochemical markers in addition to cross-sectional imaging remains undefined.

Question 6: Should upper gastrointestinal tract endoscopy be regularly prescribed during follow-up?

Statement 5

Upper gastrointestinal tract endoscopy may be used to detect local recurrence or metachronous primary gastric cancer in patients who have undergone a subtotal gastrectomy. True local recurrence is uncommon, but if present it may be considered for resection with curative intent, especially in patients who initially presented with early-stage disease. The cost–benefit ratio of endoscopic surveillance of the anastomosis and/or gastric remnant remains undefined.

Question 7: After how many years should follow-up be stopped?

Statement 6

Routine screening for asymptomatic recurrence of gastric cancer may be discontinued after 5 years, as recurrence beyond that time is very rare.

Table 1 Working questions

Question no.	Question
1	Should patients be completely lost after radical surgery and possible adjuvant chemotherapy?
2	Should follow-up be done exclusively by a general practitioner instead of a surgeon, oncologist, or gastroenterologist?
3	Should follow-up be differentiated on the basis of recurrence risk?
4	Should only clinical checks be done during follow-up?
5	Should advanced imaging techniques be regularly prescribed during follow-up?
6	Should upper gastrointestinal tract endoscopy be regularly prescribed during follow-up?
7	After how many years should follow-up be stopped?

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Discussion

Tumor recurrence after curative therapy for gastric cancer is unfortunately common, and the great majority of cases are incurable. Performing regular postoperative instrumental checks is of unproven value. However, high-volume cancer centers usually offer their patients some form of regular follow-up after radical therapy. The rationale for this is threefold; to manage the quality of life and nutritional aspects of gastrectomy, to provide pastoral support for the patient and their family, and to conduct audit/research. The effects of gastrectomy for patients are both predictable (i.e., weight loss) and unpredictable (i.e., dumping). It is therefore imperative that they are seen regularly during the first year after surgery to provide support and advice, particularly regarding nutrition. Presently, there is little a clinician can offer a patient with recurrent gastric cancer except palliative chemotherapy. Soon, biomedical research will hopefully provide therapeutic weapons for metastatic cancer patients and/or relapsing patients. All clinical teams have an obligation to monitor their outcomes with the aim of improving standards, and this process relies on the routine audit of outcomes. All these aspects of a high-quality service require patients to be offered regular and timely access to the specialist multidisciplinary team.

This article presents the results of an international consensus conference of experts participating in a Web-based program lasting several months and finally concluded in a reserved open-discussion session during the 10th IGCC held in Verona in June 2013. The board of experts recognized that follow-up is good clinical practice and should to be offered to all patients for the reasons already mentioned. Follow-up should be individualized to the patient and appropriate for the patient and the health care setting (i.e., video-linking may be the easiest way to contact patients who live far from their hospital). Follow-up should consist of clinical review and cross-sectional imaging with or without upper gastrointestinal tract endoscopy, and should be discontinued after 5 years.

The statements of this consensus of experts are included in the Charter Scaligero on Gastric Cancer as an annex related to Article 13 ("The role of the "follow up" in the management of gastric cancer"), which states: "The

appropriate management of the disease is fundamental not only for improving the patients' quality of life but also in order to decrease unnecessary costs for the health systems. A panel of experts who participated in the 10th IGCC have elaborated a vision and reached a consensus on a number of statements that are intended as a guide of principles that would be of help to better manage the follow up of the disease after surgery. The Institutions and Professionals who endorsed this Charter and the "statements on the follow up" commit themselves to implement methodologies that will be reviewed, on the bases of evidence, in future congresses with the scope to come in the future to common approaches."

The Charter Scaligero on Gastric Cancer is currently being promoted to the cultural, political, and administrative institutions dealing with health worldwide. It is expected it will be reevaluated every 2 years.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.