Advances in High-Tech Medical Diagnostics: The Rectal Cancer Case

Zoran Krivokapic, FRCS, FACS, honFASCRS
First Surgical Clinic, Clinical Centre of Serbia
Medical Faculty of Belgrade University
Belgrade, Serbia
scpy@beotel.net

Abstract— The treatment of rectal cancer has become ever more technology dependent, presenting the clinician with a number of novel treatment options aimed to the improvement of overall treatment results in minimally invasive way.

Keywords-rectal cancer; treatment; staging; modern treatment; surgery

I. INTRODUCTION

The treatment of rectal cancer has expanded in recent years, presenting the clinician and patient with increasingly challenging management decisions. At the heart of this decision-making process are two competing interests; more radical but more morbid treatments which optimize oncological outcome, and less radical treatments which preserve organs and function but may pose a greater risk of disease recurrence. In solving this dilemma, we may and need rely on ever expanding modern technology.

II. SPEECH AT A GLANCE

Imaging plays a vital role informing this decision-making process, both by providing prognostic details about the cancer before the start of treatment and by updating this picture as the cancer responds or fails to respond to treatment. There is a range of available imaging modalities, each with its strengths and weaknesses. The principle imaging modalities available to address these needs are MRI, CT, EUS and FDG-PET/CT. Optimizing rectal cancer treatment requires a clear understanding of all available methods, of which robotic surgery is perhaps the most advanced one. Robotic surgery is a relatively new technology; few large high quality studies are available. Most of the published studies in this area consist of retrospective reviews, case matched studies, and national database reviews. Large randomized prospective studies are needed to further support its widespread use. Postoperative follow-up can be improved by adopting some of technological advances available at present. PET-CT and novel, but still unproved molecular and genetic markers can help us detect the recurrence of the disease in earliest possible stage and can help us improve survival in rectal cancer patients.

I. CONCLUSION

In the coming years, the incorporation of accurate MRI-based tumor assessment into therapeutic clinical trials will allow the development of evidence-based treatment strategies for rectal cancer patients with each stage of the disease. This will enable us to tailor patient treatment based on prognostic features at presentation, response to neoadjuvant therapy and recurrent disease during follow-up. This will allow us to minimize the morbidity of rectal cancer treatment without compromising oncological outcomes.

CURRICULUM VITAE

Prof. Dr Zoran Krivokapić, Corresponding member of Serbian Academy of Sciences and Arts (SANU), Fellow of the Royal College of Surgeons of England (FRCS), Fellow of the American College of Surgeons (FACS), Honorary Fellow of the American Society of Colon and Rectal Surgeons (ASCRS) Since 1993 he has been the Head of the Coloproctology Department at the First Surgical Clinic in Belgrade, and is the founder of modern coloproctological medicine and surgery in Serbia. During his surgical career he operated more than 5000 patients diagnosed as colorectal carcinoma. Was the President of European Society of Coloproctology (ESCP) for 2011 – 2012. He is a member of Editorial boards of 15 journals, 8 international and 7 national. He is an author of 4 monographies and co-author of over 580 papers

REFERENCES