The Role of Medical Imaging: Some Gastrointestinal Cancer Cases

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Abstract—Technological developments are increasing and they are used in every part of medical applications. These technological developments are using especially in radio-diagnostics for cancer diagnosis. Cancer starts when cells in a part of the body start to grow out of control. Many of the medical imaging techniques are used in all phases of cancer diagnosis and management. Although imaging of some type of cancer is difficult, the earlier diagnosis is very important for human health. To identify patients with gastrointestinal cancers a large number of imaging techniques are available (X-ray, ultrasound, computed tomography, magnetic resonance imaging etc.) Imaging is critically important for cancer detection and management. In this review, some gastrointestinal cancer cases are presented.

Index Terms—Gastrointestinal cancer, imaging

INTRODUCTION

ALL cancers start because abnormal cells grow out of control. More than one million people suffer from cancer. According to American Cancer Society “the numbers of new cancer cases and deaths expected each year in order to estimate the contemporary cancer burden, because cancer incidence and mortality data lag three to four years behind the current year. In addition, the regularly updated Facts & Figures publications present the most current trends in cancer occurrence and survival, as well as information on symptoms, prevention, early detection, and treatment.” [1]. There are 230,000 new digestive system cancer cases in US, 2013 [2]. This means too many people suffer from gastrointestinal cancers. The early detection of cancer is vital. The imaging is not only used for detection but also important for determining the stage provides directing surgery and whether cancer has returned or not. Imaging technologies in medicine have undergone explosive growth over the past three decades and now play a central role in oncology.

The aim of this review was to present some gastrointestinal cancer cases with imaging techniques.

A. THE CASES

Figures 1a, 1b, 2, 3, 4 and 5 show the gastrointestinal cancer examples with US, barium enema, and CT.
Figure 2: Axial post contrast CT scan of the in the distal oesophagus demonstrates focal asymmetric thickening of lateral oesophageal wall. The oesophageal lumen is markedly narrowed.

Figure 3, 4, and 5: Axial post contrast CT scan of the rectum demonstrates focal thickening of the posterior and lateral rectal wall. The outer margin of the rectum is smooth and well preserved. The rectal lumen is markedly narrowed. No abnormal lymph nodes are identified.

CONCLUSION

There are many imaging techniques such as; X-ray, ultrasound (US), computed tomography (CT), magnetic resonance imaging (MRI) etc. Imaging is critically important for cancer detection and management.

REFERENCES