

## **Introduction**

Gastric carcinoma and lymphoma are the most common malignant neoplasms of stomach. Each of these has a variable radiographic appearance. Other malignant neoplasms are considerably less common **(Stabile et al., 2003).**

Neoplasms of the duodenum either primary or secondary are uncommon **(Wei et al., 2003).**

Primary encountered carcinoma is probably the most frequently others include sarcoma, lymphoma and carcinoid tumors **(Nolan, 2001).**

Small intestinal tumors represent less than 25% of all gastrointestinal tumors and 1-2% of all malignant tumors in general **(Defranco et al., 2002).**

Colorectal cancer is the second commonest cancer in the UK with approximately 30,000 new cases a year and 20,000 deaths a year **(Mehta et al., 1994).**

For many years barium examinations and endoscopy were the only diagnostic methods for evaluating diseases of the gastrointestinal tract. In the last 15 years however, CT has been shown to be an essential tool in the diagnostic evaluation of the gastrointestinal tract **(Koehler et al., 1998).**

It was found that multidetector CT carries many advantages including shorter acquisition time, retrospective creation of thinner and thicker sections from the same raw data, better resolution and ease of performance (**Ng et al., 2004**).

Recent studies had reported accuracy from 83 to 94% for identifying colonic wall invasion and 80% for identifying regional lymph node involvement, using a combination of transverse and multiplanar reformatted images (**Kanamoto et al., 2007**).

In addition, multidetector CT scanners improve the quality of the 3-dimensional CT (3DCT) images that are valuable to the clinicians and surgeons (**Horton & Fishman, 2004**).

Recent advances in computer assisted virtual reality data and post processing techniques with rapid image acquisition have led to the development of virtual reality imaging. It allows navigation through any hollow air distended viscus with consequent production of endoluminal images that permit visualization of intrinsic lesions (**Rogala, et al., 2001**).

The wide availability of high resolution scanners and the use of the safer contrast materials, combined with increasing experience in both performing and interpreting, studies had led to the maturity of CT into a vital diagnostic tool in the assessment of gastrointestinal malignancies especially with the use of multidetector CT scanning (**Rogala et al., 2001**).

CT scanning has good sensitivity for the detection of GISTs; abnormalities may be seen in 87% of cases (**Cichoz-Lach et al., 2008**).

CT is used preoperatively primarily to determine the stage and extragastric spread of a gastric carcinoma. This information is vital in deciding between palliative surgery and curative radical surgery (i.e., identifying patients who would not benefit from radical surgery). Additionally, CT is used to monitor a patient's response to treatment (Fujiwara et al., 2008).

## **Aim of the work**

The aim of this work is to highlight the role of multidetector CT in the assessment of gastric and intestinal malignant neoplasms, some illustrative cases of different gastric and intestinal malignancies are involved.

