Introduction

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GastroIntestinal Stromal Tumors (GIST) are mesenchymal tumors of the gastrointestinal tract, where they account for 1-3% of all malignancies***.(kim,et al .2001)***

The name GIST was first used by Mazur and Clark in 1983, and this category includes an heterogeneous group of tumors with a wide variety of cellular differentiation. This fact has brought some degree of confusion with regard to its interpretation***.(Crosby,et al.2001***)

In the 1980s several immunohistochemical studies showed that these tumors may display extremely variable cellular differentiation .They may display smooth muscle (as shown by the expression of actin, myosin and desmin), autonomic nerve, ganglionic or neural differentiation. They may also remain poorly differentiated ***(Rosay 1996)***

In 1998 Kindblom postulated for the first time the possibility that these tumors may derive from the interstitial cells of Cajal, based on the fact that both cell types are positive for the same marker – CD117 (c-KIT). ***(kindblom LG,et al.1998)***

Interstitial cells of Cajal are part of the autonomic nervous system, which sends signals to the gastrointestinal tract. Some have called these cells the pacemakers of the gastrointestinal tract (fig.1). The nerve signals they send cause muscles of the digestive organs to contract, which helps to move food and liquid through the GI tract (***Raut, et al. 2007***).

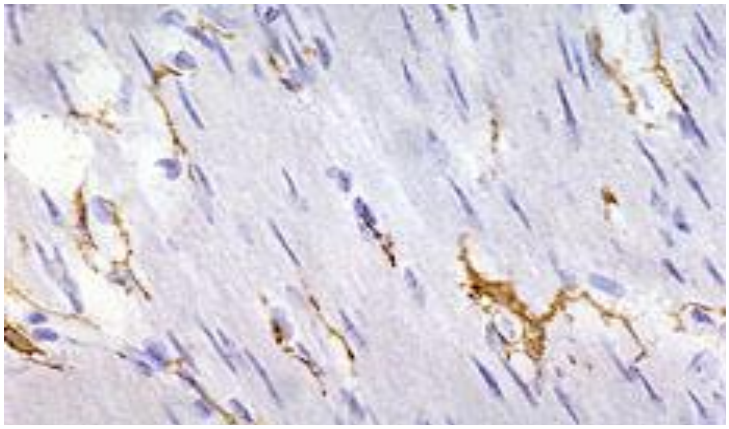

Fig. 1. Cajal cells are identified as slender spindle cells with thin,elongated processes, seen here in the muscularis propria of colon **(Robinson ,et al .2000)**

Gastrointestinal stromal tumor (GIST) is now defined as a specific, immunohistochemically KIT-positive mesenchymal neoplasm of the gastrointestinal (GI) tract and abdomen. GISTs constitute a majority of GI mesenchymal tumors. Pathologic activation of KIT signal transduction appears to be a central event in GIST pathogenesis ***(Heinrich MC,et al.2003)***

Not all gastrointestinal stromal tumours are malignant. Some are benign that they don't invade into other areas or spread to other parts of the body (***Nilsson, et al. 2005***).

The literature about gastrointestinal stromal tumors remains confusing because tumour classification and terminology are being continually refined. Furthermore, the exact definition of gastrointestinal stromal tumours varies among authors. Some use the term to describe any gastrointestinal submucosal mesenchymal tumour

that is not myogenic (eg,leiomyoma, leiomyosarcoma) or neurogenic (eg, schwannoma) in origin (***Cichoz-Lach, et al.2008***).

A number of primary GISTs have been reported outside the GI-tract proper in the abdomen, specifically in the omentum, mesenteries, and retroperitoneum . However, more often GISTs in these sites are metastatic from the GI-tract. A number of GISTs are diagnosed as disseminated intra-abdominal tumors involving multiple intestines, peritoneal surfaces and other abdominal organs. In such cases, the primary site is often impossible to determine***.(Reith, et al.2000)***

Genomic and molecular sciences have enhanced our understanding of GIST, paving the way for targeted molecular therapy. Minimally invasive surgery is perhaps the next advancement in the management of these tumors. Laparoscopic resection of gastric GIST is technically feasible for properly selected tumors. Using negative resection margins and avoidance of tumor rupture/spillage to define the adequacy of an oncologic resection***.(Jennifer, et al.2008)***