

Recent management of gastro-intestinal stromal tumours (GIST)

Essay

**Submitted for partial fulfillment of
master degree in general surgery**

By

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Cairo 2009**

Acknowledgement

*Praise to "**Allah**" who has guided us to this, never could it be done without the help of "**Allah**".*

*I would like to express my deepest gratitude to **Prof. Dr. Khalid Zaky Mansour** for his generous care, valuable help and continuous support throughout this work.*

*Great thanks to and appreciation are forwarded to **Dr. Ahmed Mohamed Nafie** for his care and guidance.*

*My profound gratitude to **my parents and my wife** who offered me care and encouragement and time through all my steps with kindness and humanity.*

*Last but not least, I offer my thanks and regards to all staff members and **Surgery Department, AIN SHAMS UNIVERSITY.***

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الجديد في علاج الأورام اللحمية للجهاز الهضمي

رسالة

توطئة للحصول على درجة الماجستير في الجراحة العامة

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جامعة عين شمس

القاهرة 2009

Introduction

INTRODUCTION

Gastrointestinal stromal tumours (GISTs) are fairly rare tumours of the gastrointestinal tract. Incidence of gastrointestinal stromal tumours is about 1 – 3 % of all gastrointestinal malignancies and occurs in 10-20 per one million people. In the past, some were thought to start in the muscle layer of the gastrointestinal tract, and some were thought to start in nerve cells. This is because the tumor cells look like muscle or nerve cells under the microscope. They were often thought to be related to sarcomas -- cancers that start in the muscle, bones of the legs and arms, or other connective tissues. It is now believed that they start in special cells found in the wall of the gastrointestinal tract, called the interstitial cells of Cajal (ICCs), or in very early cells that can develop into interstitial cells of Cajal (***Corless et al, 2004***).

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. 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, 2005***).

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

Gastrointestinal stromal tumours are a subset of gastrointestinal mesenchymal tumours of varying differentiation. Previously, these tumours were classified as gastrointestinal leiomyomas, leiomyosarcomas, leiomyoblastomas, or schwannomas, on the basis of histologic findings and the fact that these tumours apparently originate in the muscularis propria layer of the intestinal wall. With the advent of immunohistochemical staining techniques and ultrastructural evaluation, gastrointestinal stromal tumours now are recognized as a distinct group of mesenchymal tumours. Gastrointestinal stromal tumours account for approximately 80% of gastrointestinal mesenchymal tumors (*Nishida and Hirota, 2000*).

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, leiomyosarcoma) or neurogenic (eg, schwannoma) in origin (***Cichoz-Lach et alu, 2008***).

Diagnosis of gastrointestinal stromal tumours depends on medical history, symptoms, risk factors, one or more types of imaging tests, and biopsy (***Corless et al, 2004***).

The main treatment for gastrointestinal stromal tumours is usually surgery. If the gastrointestinal stromal tumour hasn't spread, then the goal of the surgeon is to completely remove all of the cancer, but targeted therapies and other treatments may also help in some situations (***Demetri, 2005***).

Aim of the work

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Aim of this work is to discuss the update diagnosis and treatment of gastrointestinal stromal tumours.

Review of literature

Histology of the gastrointestinal tract