

# GIST AVANZATI: il valore della gestione multidisciplinare del Paziente

## DISCUSSIONE Anatomia Patologica

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# 1. DIAGNOSI

Settembre 2003: diagnosi di leiomioma (massa pelvica di 18 cm)

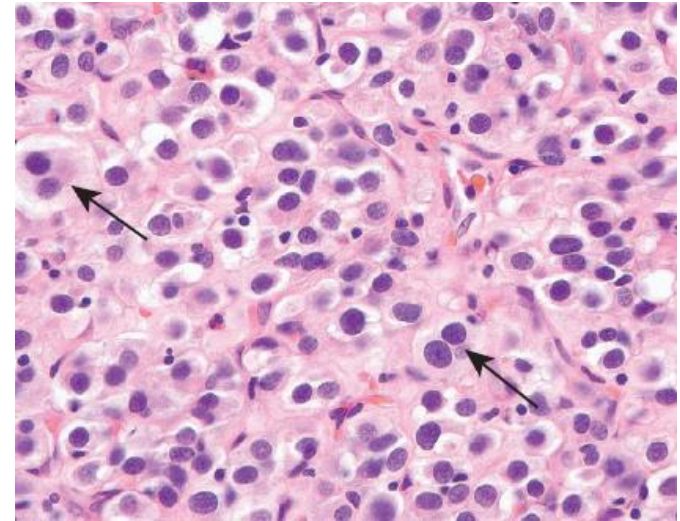
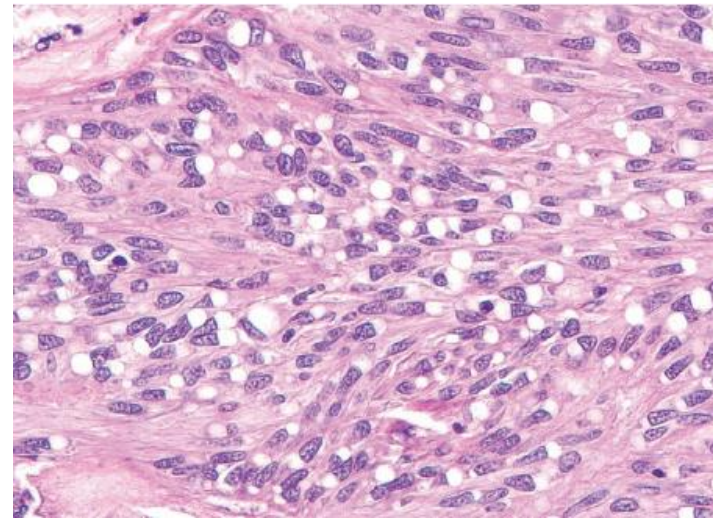
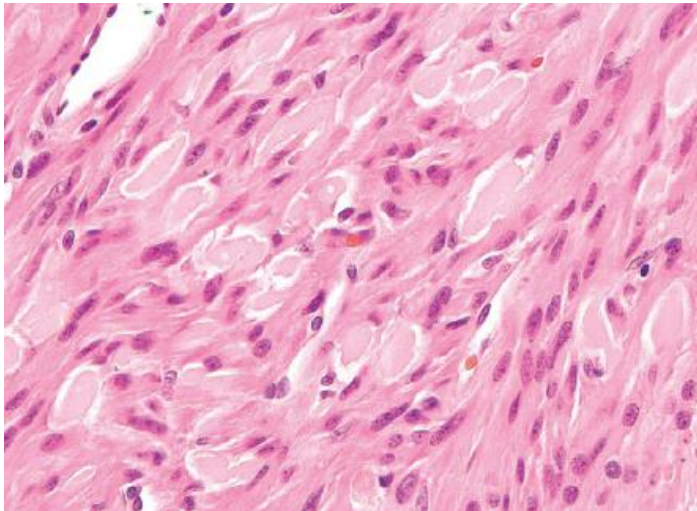
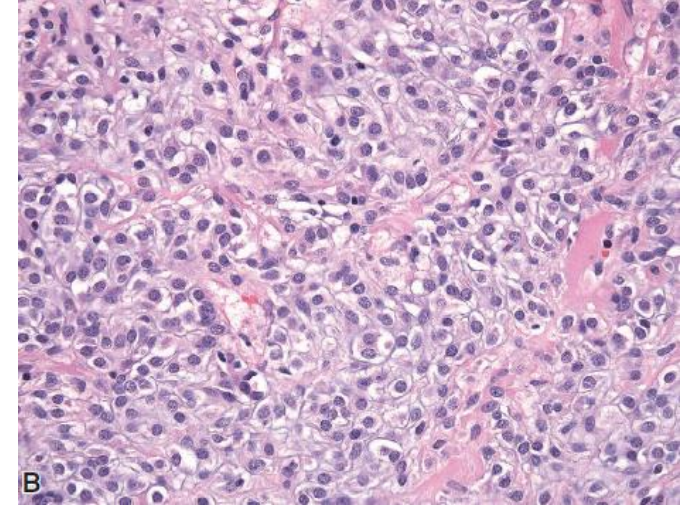
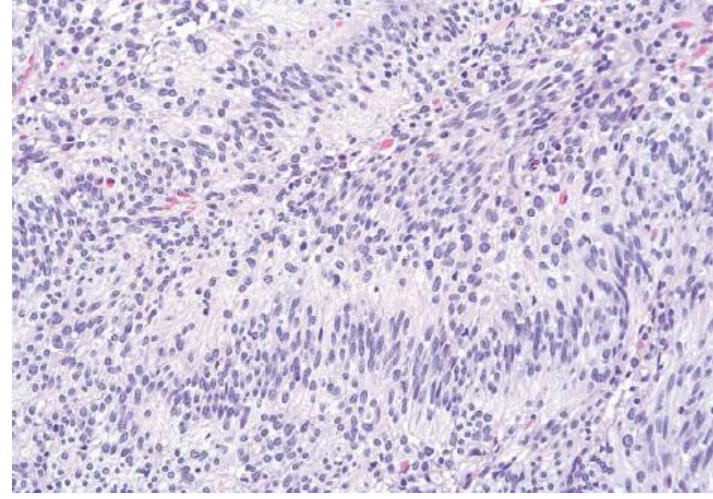
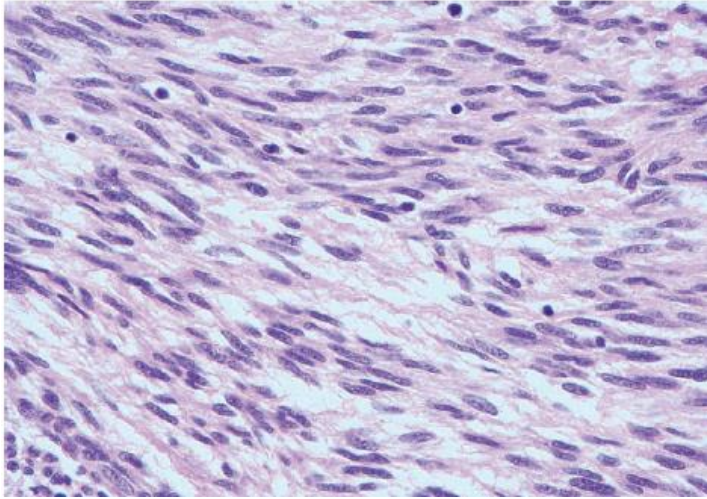
NEOPLASIA A CELLULE FUSATE PELVICA/TRATTO GASTROENTERICO:

1. Escludere neoplasia epiteliale e melanoma
2. Mesenchimale:
  - GIST
  - Leiomioma
  - Leiomioma sarcoma
  - Schwannoma
  - Fibromatosi desmoide
  - PEComa
  - ...

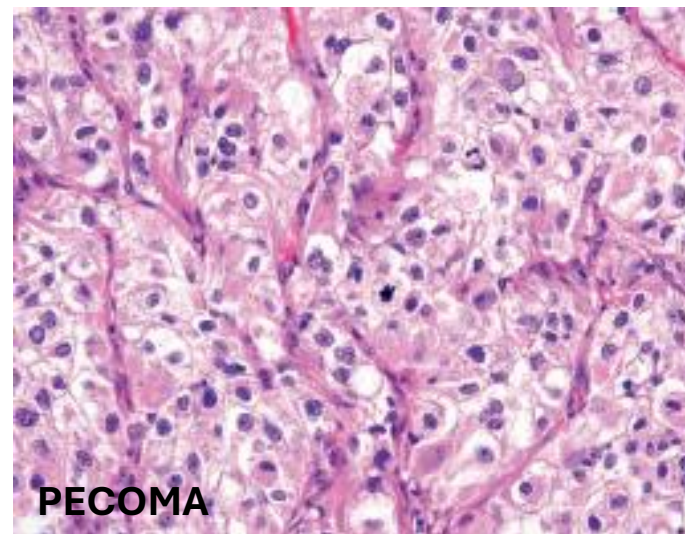
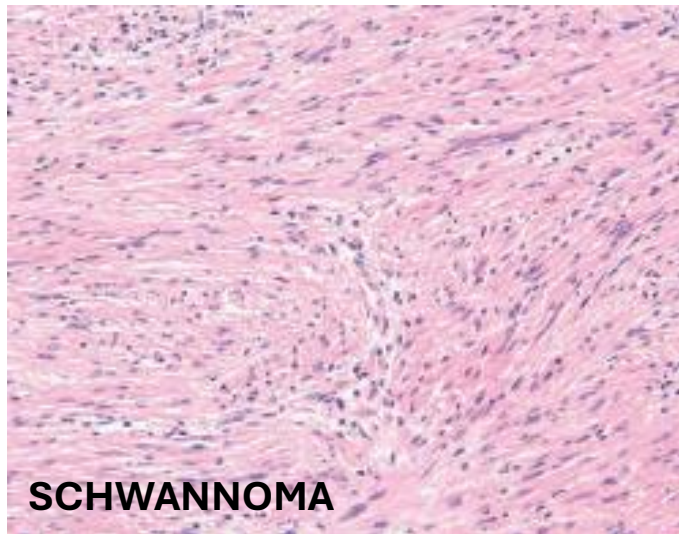
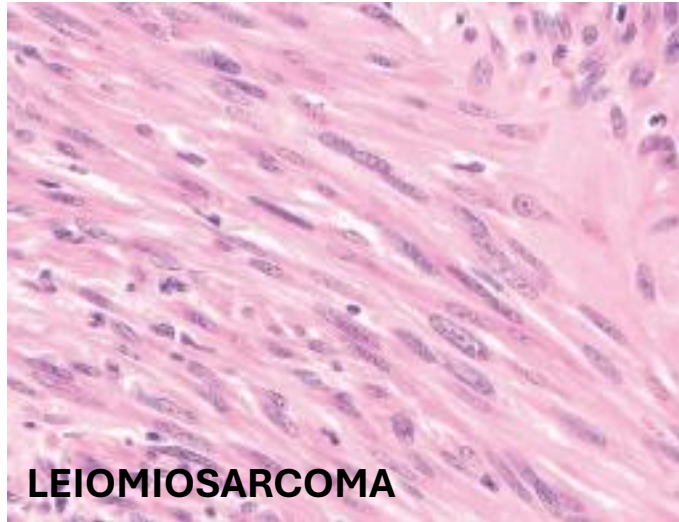
**MORFOLOGIA**  
**IMMUNOISTOCHEMICA**  
**BIOLOGIA MOLECOLARE**

# MORFOLOGIA

GIST: neoplasia a cellule fusate e/o epitelioidi



# MORFOLOGIA



# IMMUNOISTOCHIMICA

## GIST

**DOG1** 98%

**CD117 (cKit)** 95%

CD34: 70%

Caldesmone: 80%

Actina m. liscio: 30%

Desmina: 3%

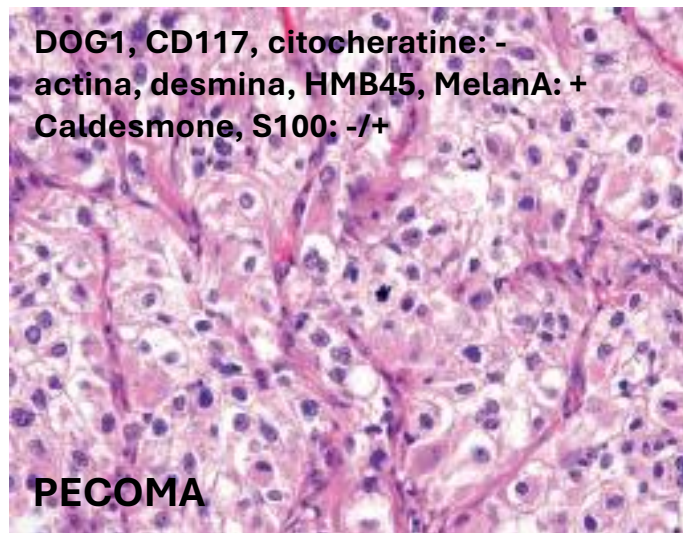
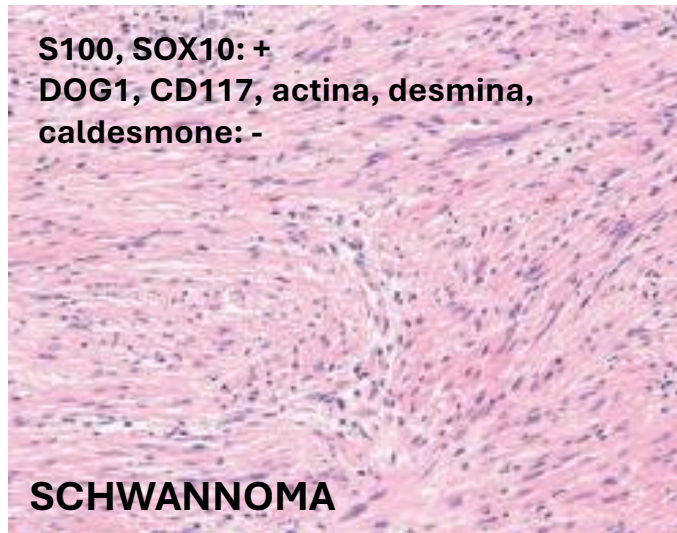
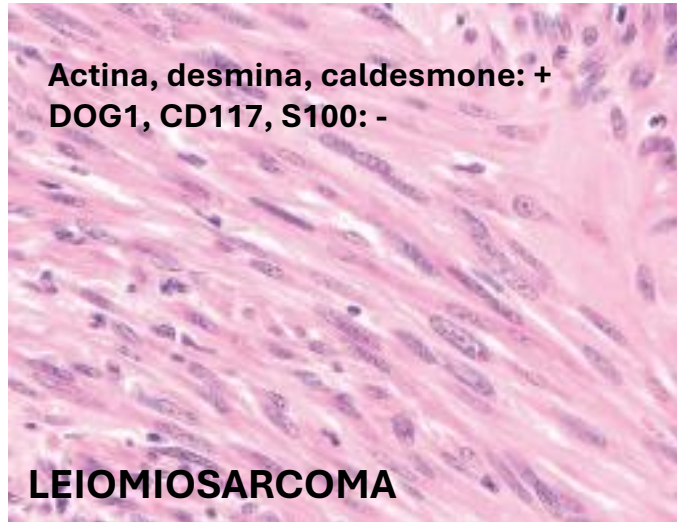
Proteina S-100: 20%

The Novel Marker, *DOG1*, Is Expressed Ubiquitously in Gastrointestinal Stromal Tumors Irrespective of *KIT* or *PDGFRA* Mutation Status

*American Journal of Pathology, Vol. 165, No. 1, July 2004*

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# IMMUNOISTOCHIMICA

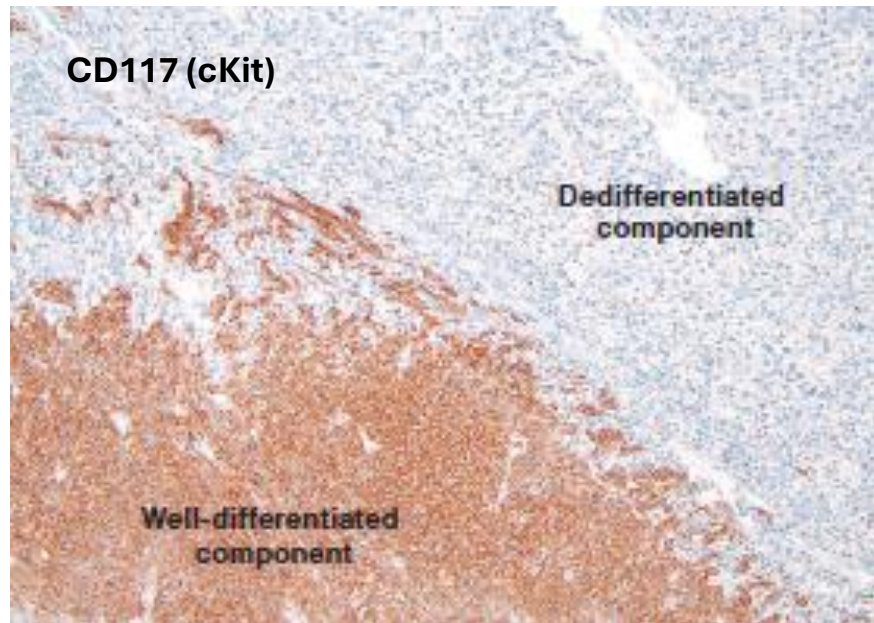


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## **Dedifferentiation in Gastrointestinal Stromal Tumor to an Anaplastic KIT Negative Phenotype – a Diagnostic Pitfall. Morphologic and Molecular Characterization of 8 Cases Occurring either de-novo or after Imatinib Therapy**

Cristina R Antonescu<sup>1</sup>, Salvatore Romeo<sup>2</sup>, Lei Zhang<sup>1</sup>, Khedoudja Nafa<sup>1</sup>, Jason L. Hornick<sup>3</sup>, G. Petur Nielsen<sup>4</sup>, Mari Mino-Kenudson<sup>4</sup>, Hsuan-Ying Huang<sup>5</sup>, Juan-Miguel Mosquera<sup>6</sup>, Paolo A Dei Tos<sup>2</sup>, and Christopher D.M. Fletcher<sup>3</sup>



# BIOLOGIA MOLECOLARE

## ANALISI MUTAZIONALE

KIT 75%

PDGFr alfa 10%

KIT/PDGFR wild type 15%

SDH deficient (SDHA, SDHB, SDHC, SDHD)

BRAF

NF1

NTRK1, NTRK2, NTRK3

**Mutazione dell'esone 11 di KIT:  
K558\_E562del**



## 2. FATTORI PROGNOSTICI

#6402

Table 1.03 Relationship of mitotic count and tumour size to prognosis of gastrointestinal stromal tumour (GIST), based on large follow-up studies conducted by the US Armed Forces Institute of Pathology (AFIP)

Category	Size (cm)	Mitotic count (mitoses/5 mm <sup>2</sup> )	% progression <sup>a</sup>	
			Stomach	Small bowel <sup>b</sup>
1	≤ 2	≤ 5	0	0
2	> 2 to ≤ 5	≤ 5	1.9	4.3
3a	> 5 to ≤ 10	≤ 5	3.6	24
3b	> 10	≤ 5	12	52
4	≤ 2	> 5	0	50
5	> 2 to ≤ 5	> 5	16	73
6a	> 5 to ≤ 10	> 5	55	85
6b	> 10	> 5	86	90

<sup>a</sup>The given numbers for GISTs of each size indicate the percentages of progressive disease (metastasis or death due to disease) observed in the patient cohorts during a long-term follow-up. <sup>b</sup>Prognostic assessment of GISTs of all non-gastric sites follows the criteria for small bowel GISTs.

Data based on Miettinen and Lasota, 2006 { [17193820](#) }.

Copyright WHO Classification of Tumours Editorial Board. Digestive system tumours. Lyon (France): International Agency for Research on Cancer; 2019. (WHO classification of tumours series, 5th ed.; vol. 1). <https://publications.iarc.fr/579>.

**GIST ad alto rischio**

**Dimensioni: 18 cm**  
**Conta mitotica: 12/5 mmq**

## 2. FATTORI PROGNOSTICI

*Histopathology* 2008, 53, 245–266. DOI: 10.1111/j.1365-2559.2008.02977.x

REVIEW

### Clinical significance of oncogenic *KIT* and *PDGFRA* mutations in gastrointestinal stromal tumours

J Lasota & M Miettinen

Department of Soft Tissue Pathology, Armed Forces Institute of Pathology, Washington DC, USA

ORIGINAL ARTICLE

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**Mutazione dell'esone 11 di KIT:  
K558\_E562del**

### KIT, PDGFRA, and BRAF Mutational Spectrum Impacts on the Natural History of Imatinib-naive Localized GIST

*A Population-based Study*

*Sabrina Rossi, MD, PhD,\* Daniela Gasparotto, PhD,† Rosalba Miceli, PhD,‡*

*Luisa Toffolatti, PhD,\* Giovanna Gallina, PhD,\* Enrico Scaramel, MSc,\**

*Alessandra Marzotto, MSc,† Elena Boscato, MSc,† Luca Messerini, MD,§ Italo Bearzi, MD,||*

*Guido Mazzoleni, MD,¶ Carlo Capella, MD,# Gianluigi Arrigoni, MD,\*\* Aurelio Sonzogni, MD,††*

*Angelo Sidoni, MD,‡‡ Luigi Mariani, MD, PhD,‡ Paola Amore, PhD,§§*

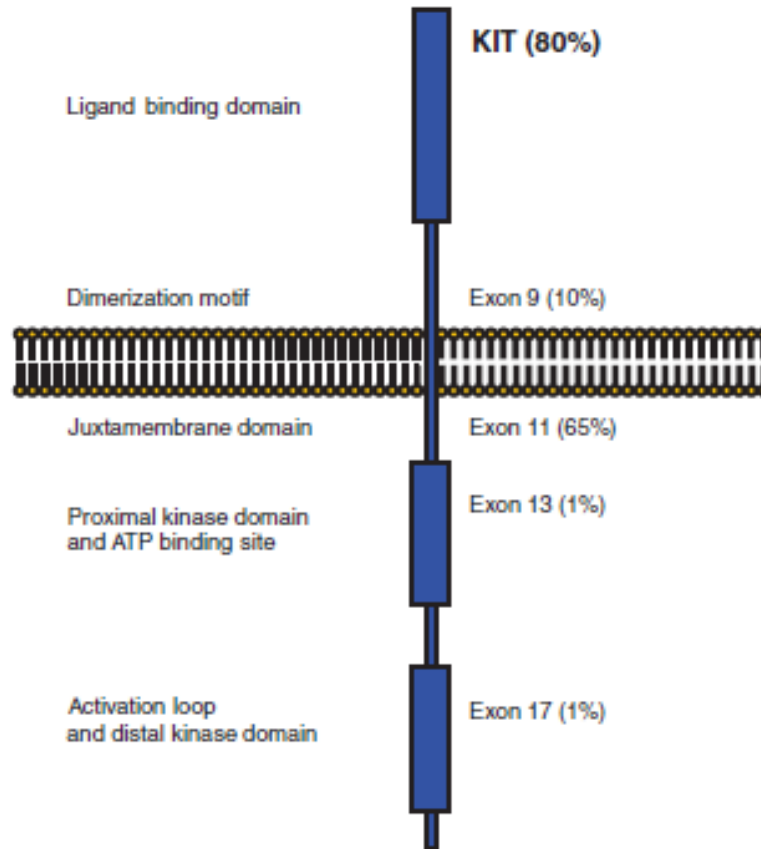
*Alessandro Gronchi, MD,||| Paolo G. Casali, MD,¶¶ Roberta Maestro, PhD,†*

*and Angelo P. Dei Tos, MD\**

(*Am J Surg Pathol* 2015;39:922–930)

### 3. FATTORI PREDITTIVI

Mutazione dell'esone 11 di KIT: **K558\_E562del**



## 4. RIVALUTAZIONE DEL MATERIALE

2010: analisi mutazionale sul nuovo campione chirurgico

Mutazione dell'esone 11 di KIT: **p.K558\_E562del**

+

Mutazione dell'esone 17 di KIT: **p.N822K**

A microscopic image of tissue, likely stained with hematoxylin and eosin (H&E), showing various cellular structures and nuclei. The text is overlaid on the center of the image.

Grazie per l'attenzione

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