CHARACTERISTICS AND OUTCOME OF GASTROINTESTINAL STROMAL TUMORS (GIST): A SINGLE CENTER EXPERIENCE OVER A DECADE

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Background: GISTs are the most common mesenchymal tumors of gastrointestinal tract (GI) and account for 0.1% to 0.3% of all GI tumors. Their biological behavior is difficult to predict, ranging from clinically benign to malignant. Tumor size, mitotic rate, and anatomic location correlate with potential malignancy and recurrence rate. Treatment with tyrosine kinase inhibitors has revolutionized therapy for gists, but complete resection remains the treatment of choice. Our aim is to analyze the outcome of 52 patients with gastrointestinal stromal tumor (GIST) who were treated at a single institution and followed up prospectively.

Methods: The data of 52 patients (31 males/21 females) with GIST who were admitted to the Gastroenterology Department of the Thessaloniki Cancer Hospital 'Theagenio' from 2002 to 2012 were reviewed retrospectively. The diagnosis based on histology and immunohistochemistry of a biopsy or the resection specimen.

Results: The mean age was 63.8 years (32-88). The tumor was located in the stomach in 27 (51.9%) patients, followed by the small intestine in 15 (28.8%) pts, colon and rectum in 8 (15.4%) pts and the esophagus in one patient. The liver biopsy from a patient with cirrhosis and HCC showed the coexistence of a GIST. Forty-eight of the patients underwent a surgical excision of the tumor and 4 patients were presented with liver metastases. The mean diameter of the tumors was 8.2 cm (0.7-25). All the tumors were C-kit positive. Mutation analysis was not performed. Eleven (21.1%) patients had other non-GIST tumors, either synchronous (36.3%) or metachronous (54.5%) and one patient had both types. Ten of 13 (76.9%) patients with a high-risk tumor who did not receive adjuvant treatment had a recurrence. Twenty patients with metastatic or recurrent disease have been on treatment with Imatinib (400 mg) for a mean period of 46.7 months (1-126). Twelve of them (60%) died with a mean survival time of 49.7 months (1-132). The 5-year survival rate was 30%. The treatment interrupted in one patient due to intolerance (pruritus) and reduced (300 mg) in another one for the same reason. One patient died from intraperitoneal hemorrhage. From 2011 six patients with a high-risk tumor have been on Imatinib treatment in an adjuvant setting with no sign of recurrence, so far.

Conclusion: The majority of patients with GIST after resection of a tumor at high risk for relapse have a recurrence. Imatinib treatment is well tolerated and prolongs the survival in patients with metastatic or recurrent tumor. Synchronous or metachronous malignancies are seen often in patients with GIST.

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