Diagnosing Gastrointestinal Stromal Tumors before the Year 2000

To the Editor: We read with interest the article by Artinyan et al. (1) examining the effect of race and socioeconomic status on outcomes for gastrointestinal stromal tumors (GIST). The authors queried the Surveillance, Epidemiology, and End Results database for histologically confirmed GIST (International Classification of disease for Oncology, third edition, code 8936) diagnosed between 1995 and 2004. Patients were categorized into two groups: diagnosis between 1995 to 2000 (preimatinib) and 2001 to 2004 (imatinib era). The authors reported significantly improved survival for metastatic GIST in the era of imatinib, with concomitant elimination of socioeconomic survival disparities (1).

We have previously used the Surveillance, Epidemiology, and End Results database to examine population-based changes in survival for GIST. Importantly, our previous work has shown that prior to 1999, historical cases of GIST were severely under-recognized (2). In 1992, 93% of gastrointestinal mesenchymal tumors were classified as smooth muscle neoplasms and only 6% as GIST (3). In the late 1990s, after c-kit (CD117) staining became recognized as a marker for GIST, a dramatic shift in diagnosis occurred. In 2002, 82% of gastrointestinal mesenchymal tumors were classified as GIST, with corresponding reductions in the proportion of smooth muscle tumors (3). In 2006, this number is now 88.5%. This assertion is consistent with reports by the Armed Forces Institute of Pathology, which reviewed 1,765 cases of gastric smooth muscle tumors from 1976 to 1996 and reclassified 94% of previously diagnosed gastric smooth muscle neoplasms as GISTs (4).

Therefore, most gastrointestinal mesenchymal tumors were, in actuality, GISTs. Artinyan et al. have made a major design flaw in their study comparing a select subset of GIST likely representing <10% of overall cases prior to 2000 to those properly diagnosed after 2000. We submit that a better approach would have been to examine all intestinal sarcomas, recognizing that 90% represent true GISTs, although in many instances, such patients were misclassified in Surveillance, Epidemiology, and End Results databases (2, 5). This is the only manner to ensure that the GIST population prior to the introduction of imatinib is being compared to its equal counterpart during the imatinib era. The alternative is to re-examine all pathology and properly reclassify them prior to comparison. Therefore, Artinyan et al., at a minimum, should repeat their analysis including all GISTs that were misdiagnosed prior to 1998 in order to make a valid conclusion regarding any change in outcome of GIST in the era of imatinib use.

Ying Zhuge
Michael C. Cheung
Relin Yang
Leonidas G. Koniaris
DeWitt Daughtry Family Department of Surgery,
University of Miami Miller School of Medicine,
Miami, Florida

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No potential conflicts of interest were disclosed.

References

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