Aim: Accurate risk estimation is essential to optimize tx duration in pts with KIT+ GIST. However, without a standardized approach, physicians may underestimate the risk of recurrence which may affect disease management and outcomes. This study aimed to analyze the association between risk assessment and planned adjuvant tx duration in GIST pts.

Methods: A physician-administered, chart extraction tool was developed to collect information on adult pts with primary resectable KIT+ GIST. Pt clinical characteristics, planned adjuvant tx duration, and physician charted risk assessment was collected on 506 pts. The risk of recurrence was 1) reported based on physicians’ subjective assessment and 2) calculated based on the revised NIH criteria using pts’ primary tumor characteristics. Physician risk assessment and calculated risk were compared to classify pts into 2 risk cohorts: underestimated and not underestimated. Exact Fisher tests were used to compare the planned adjuvant tx duration between the underestimated and not underestimated cohorts.

Results: On average, pts were 59 yrs of age (SD 11), male (55%) and Caucasian (53%). Primary tumors were gastric (42%), >5cm (52%), with a mitotic count >5/50 HPF (68%), and most were resected without rupture (82%). Based on the revised NIH criteria, 11% of pts were at low risk, 9% at intermediate risk and 66% at high risk. Compared to the revised NIH criteria, physician risk assessments were underestimated in 38% of pts. Intermediate- and high-risk pts with underestimated risk were more likely to receive short (<1yr) or no adjuvant tx; 82% vs 27% (p=.003) for intermediate-risk pts, and 23% vs 9% (p<.001) for high-risk pts. Also, more high-risk pts with not-underestimated risk were planned to receive ≥3 yrs of adjuvant tx (66% vs. 36%, p<.001). There was no difference between the low-risk cohorts.

Conclusions: Underestimating the risk of recurrence may impact treatment duration for patients with intermediate-risk and high-risk features based on the revised NIH criteria.

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