

A non-interventional, real world study of KroHem

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Introduction

Ibrutinib has revolutionized the treatment of CLL. Despite being a targeted agent it causes off-target toxicities, most notably cardiac and hemorrhagic. Factors affecting the risk of adverse outcomes are incompletely understood.

Aim

Evaluate the efficacy and toxicity of ibrutinib treatment and risk factors for adverse outcomes.

Patients and methods

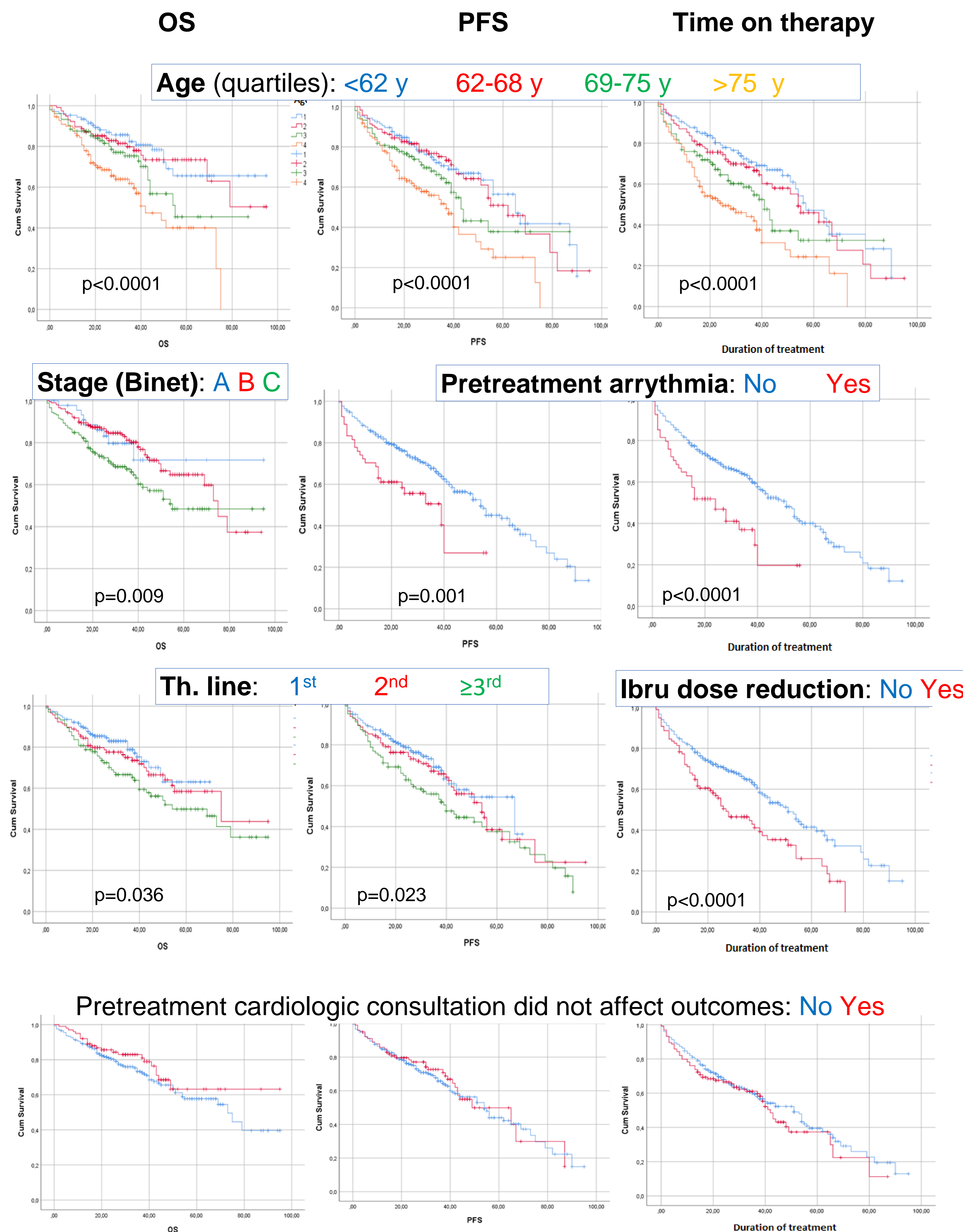
We retrospectively collected data on 436 patients who started ibrutinib for CLL between 2015 and 2021.

Patient characteristics

Characteristic	N (%)
Gender M/F	268 (61.5%) / 168 (38.5%)
Age (median/range)	68 y / 36-87 y
Binet stage (A/B/C)*	46 (10.6%) / 209 (43.3%) / 176 (40.6%)
FISH: not done	85
normal	112 (31.0%)
del 11	49 (13.6%)
+12	22 (6.1%)
del 13	62 (17.2%)
del 17	116 (32.1%)
IgHv mutational status: not done	378
mutated / unmutated	10 (17%) / 48 (83%)
Treatment line: 1 st	216 (49.5%)
2 nd	116 (26.6%)
≥3 rd / median, range	104 (23.9%) / 3, 3-11
Pretreatment cardiac consultation (yes / no)**	132 (30.3%) / 303 (69.7%)
History or pretreatment ECG with cardiac arrhythmia (yes / no)**	54 (12.4%) / 381 (87.6%)
Pretreatment arterial hypertension (yes / no)	223 (51.1%) / 213 (48.9%)

*unknown for 3 patients
**unknown for 1 patient

Factors in multivariate analysis significantly related to:

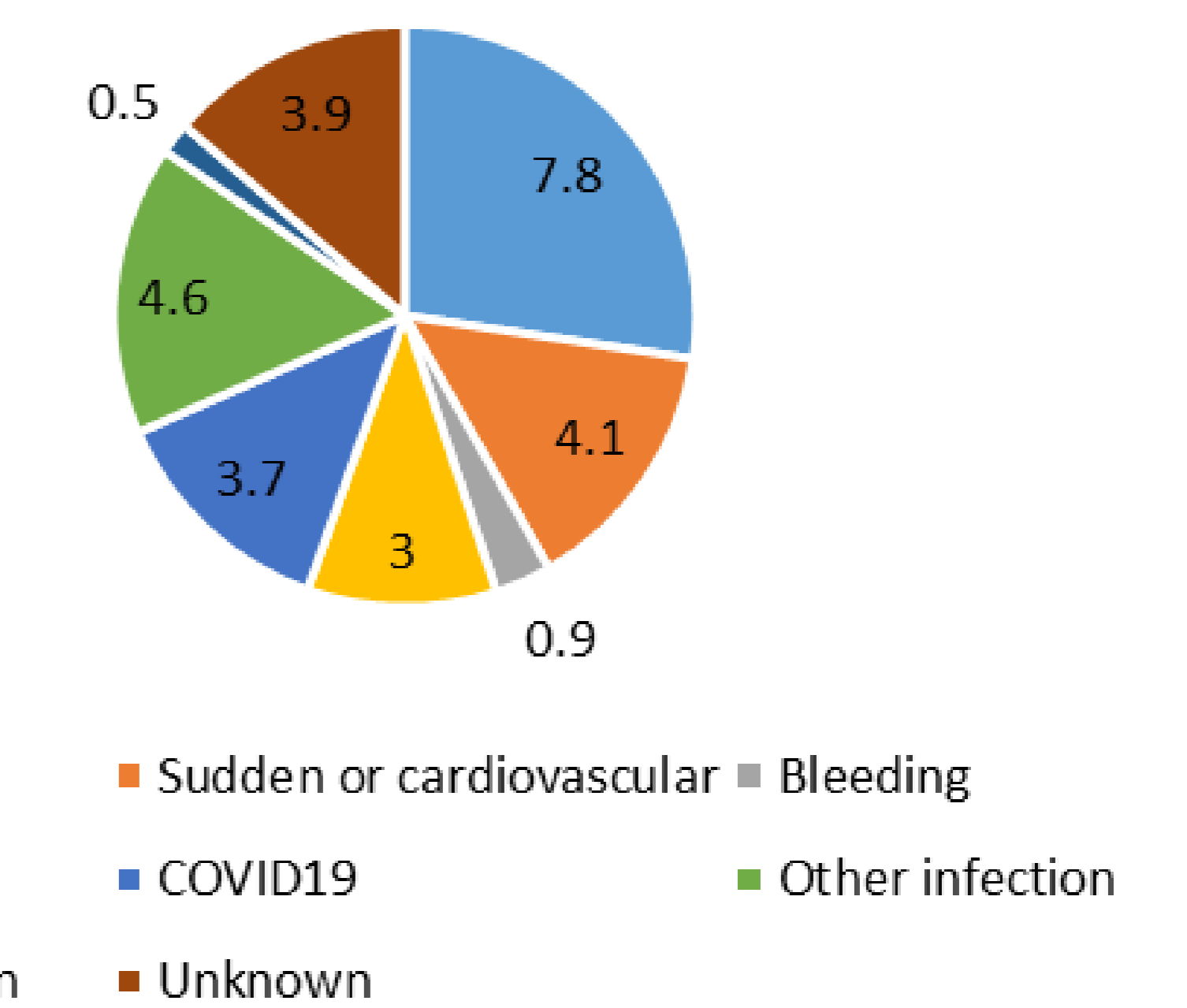


Sex, FISH and presence of arterial hypertension were not independently significantly related to any of these outcomes.

Toxicity

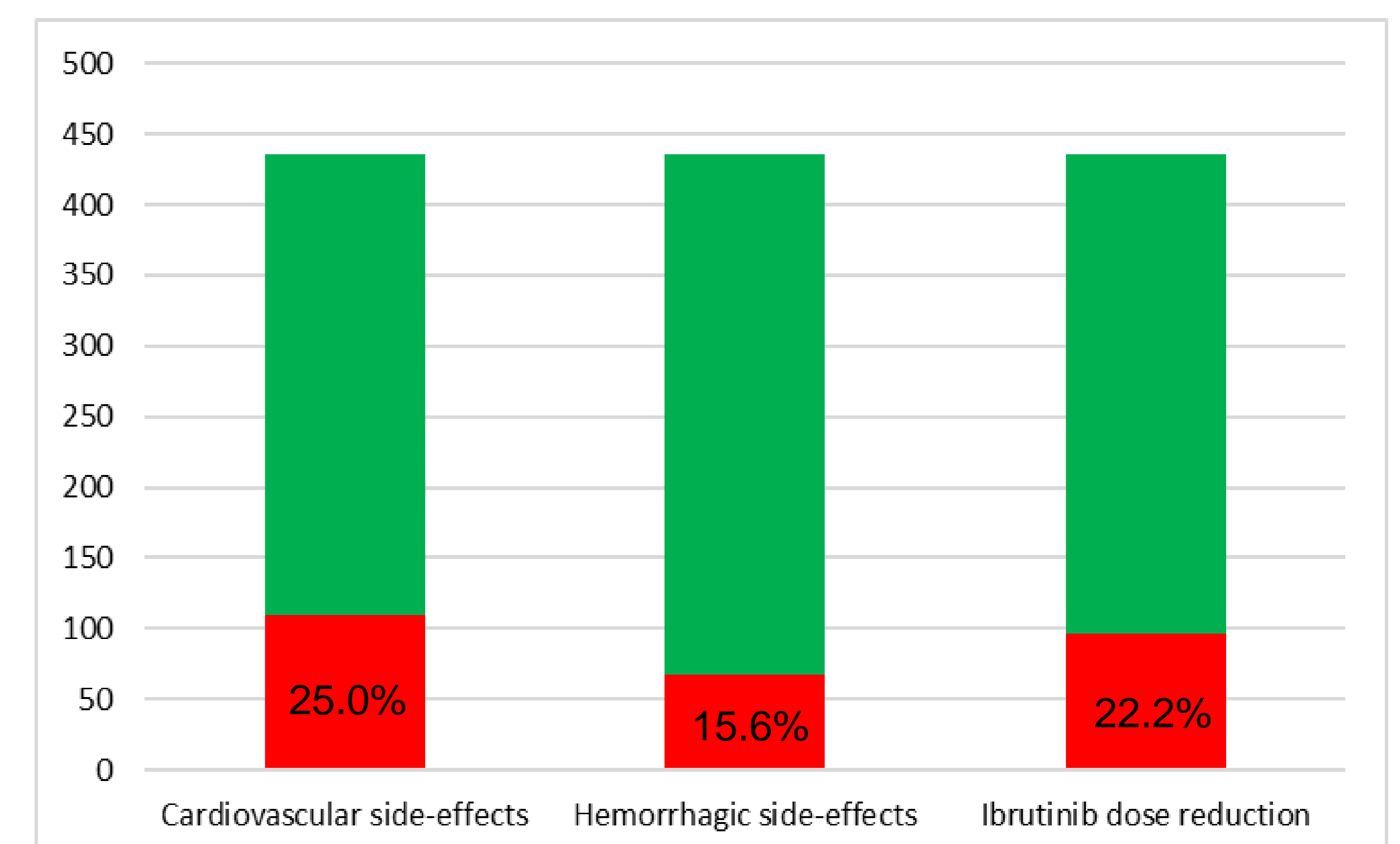
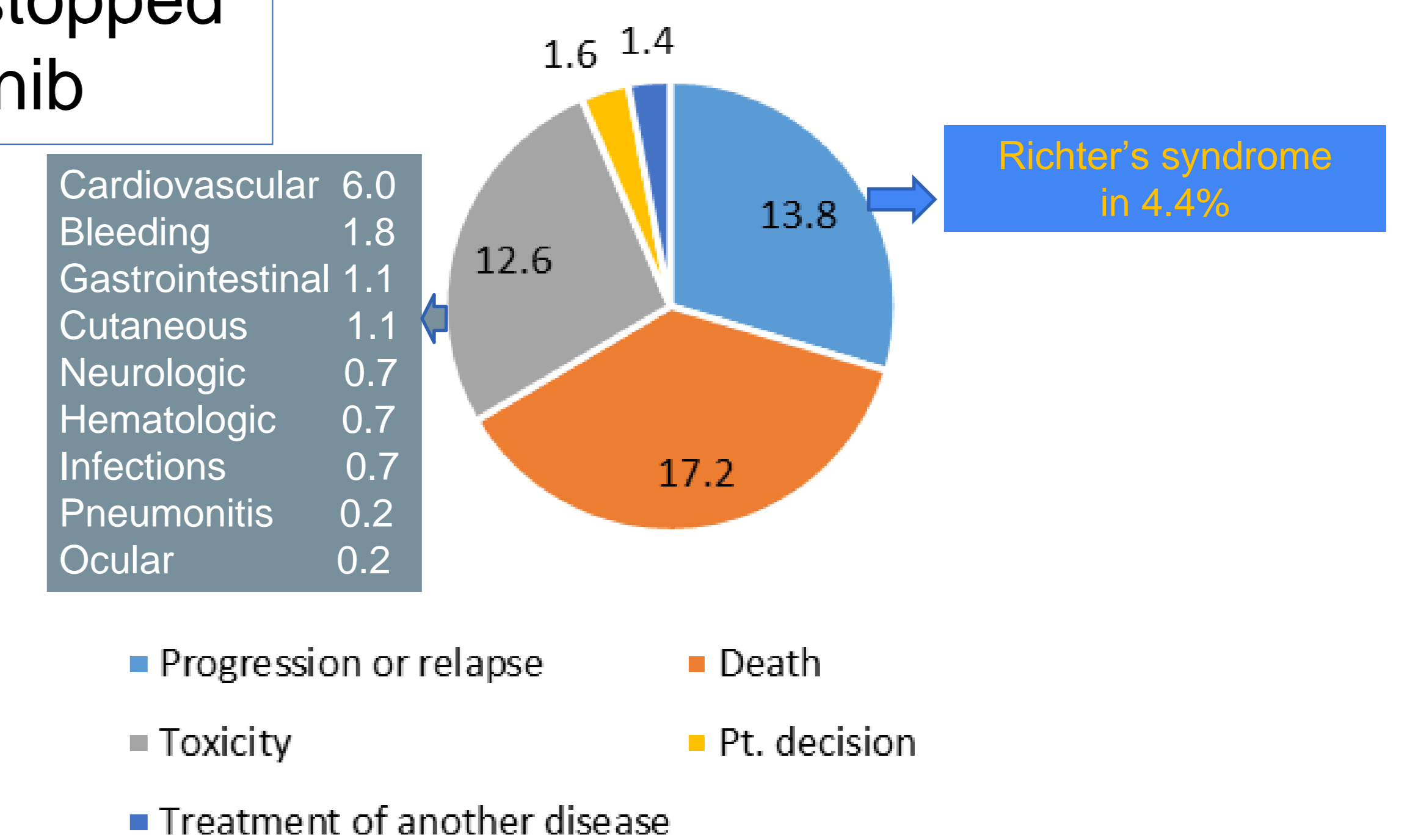
124 (28.4%) pts. died

Causes of death (%)



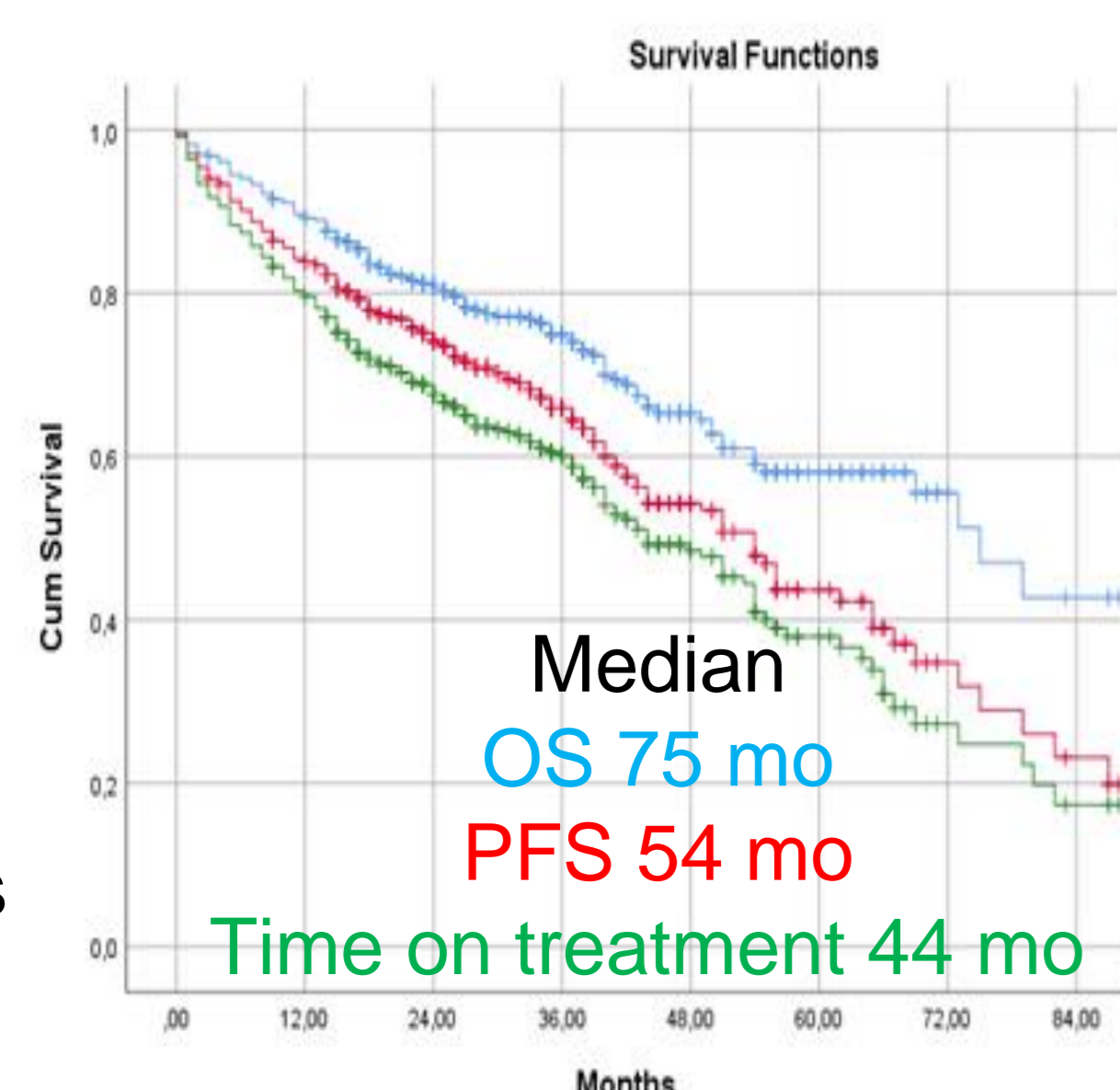
203 (46.6%) pts. stopped ibrutinib

Reasons for stopping th (%)



Conclusions

Our analysis confirms the efficacy of ibrutinib in treatment of CLL. Patients with cardiac arrhythmias are at an increased risk of having to stop treatment early. Cca. 4% die of cardiovascular side effects and additional 6% have to stop ibrutinib for same reasons. Routine pretreatment cardiologic consultation is insufficient to reduce this risk.



Outcomes

Response rate 92.7%

Median follow-up 29 mo, range 1-95 mo

Alive: 312 pts

Progression-free: 263 pts

On therapy: 233 pts