

Trial background

Thymomas but not thymic carcinomas can benefit of cytoreductive surgery even if a complete resection is not achievable. Surgical resection of pleural metastases, the most common site of progression, can be performed in selected patients. We evaluated the outcome of stereotactic body radiation therapy (SBRT) for treatment of pleural metastases in patients' not eligible for surgery.

We retrospectively identified 22 patients treated with SBRT for pleural metastases between 2004 and 2019. According to RECIST criteria, time to local failure and progression free survival (PFS) were calculated using Kaplan-Meier estimation.

Results

Ten patients experienced a progression of treated lesions with a median time to local failure of 25.5 months (95%CI 20.9-30.1). The median PFS was 20.4 months (95%CI 10.7-30). There were not significant differences in PFS between patients diagnosed with synchronous and metachronous metastases ($p=0.477$), across those treated with chemotherapy or naive ($p=0.189$) and between those who received or not a previous surgical resection of the pleural metastases ($p=0.871$)

Patients and methods

Table 1 Patient characteristics	
Characteristics	N=22
Sex	
Male	12
Female	10
Age (years)	
Median (range)	40 (29-73)
Masaoka stage at diagnosis	
IIA	2
IIB	7
III	5
IVA	7
IV B	1
Thymectomy	
Yes	21
No	1
Pre-operative chemotherapy	
Yes	7
No	15
Post-operative radiotherapy	
Yes	12
No	10
Median dose of radiation	
Median (range)	30 Gy (25-40)
Single pleural metastatic site	
Yes	5
No (multiple lesions)	17

Female, 42 ys, stage B2: 30 Gy/ 3fx

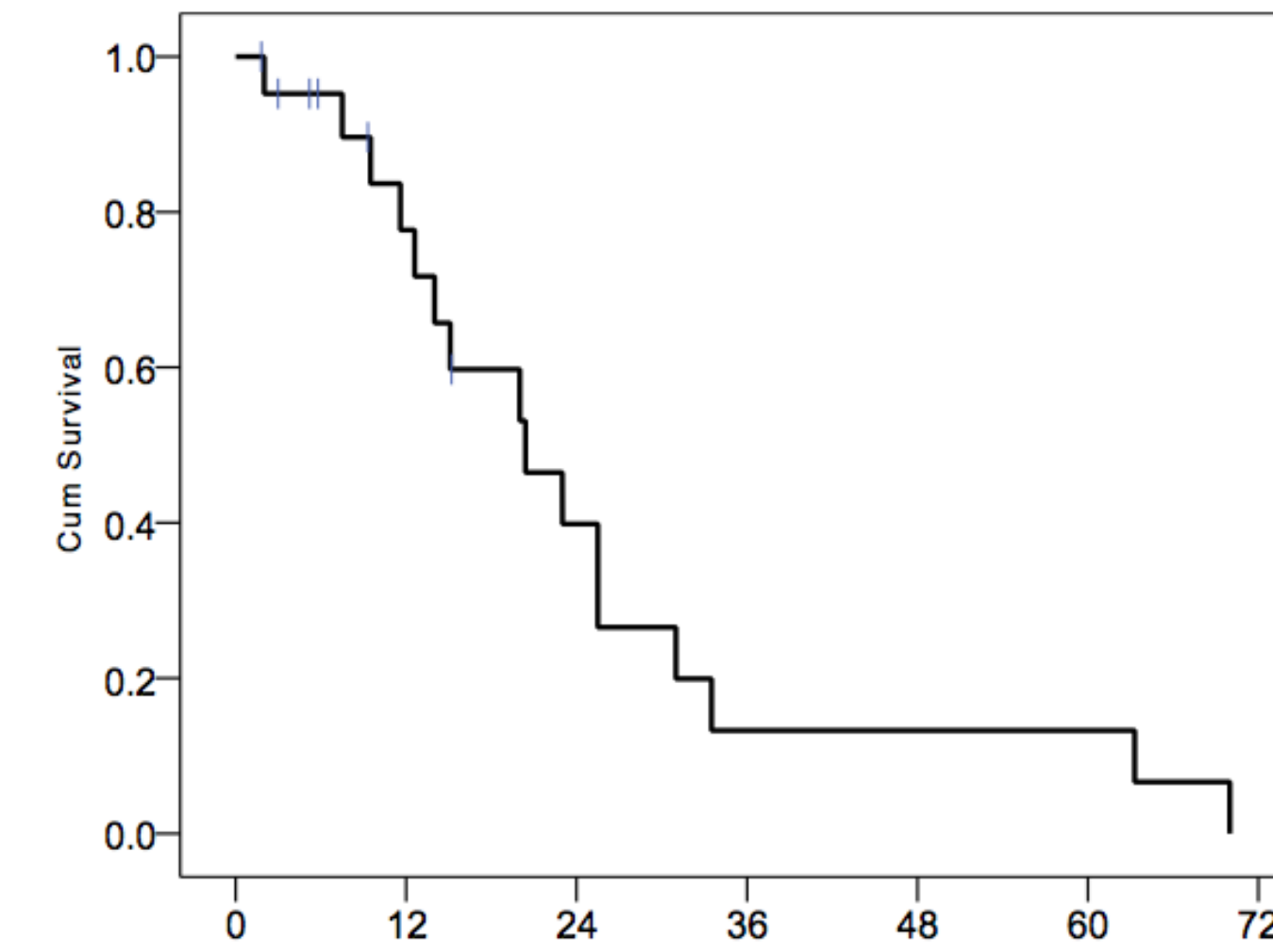
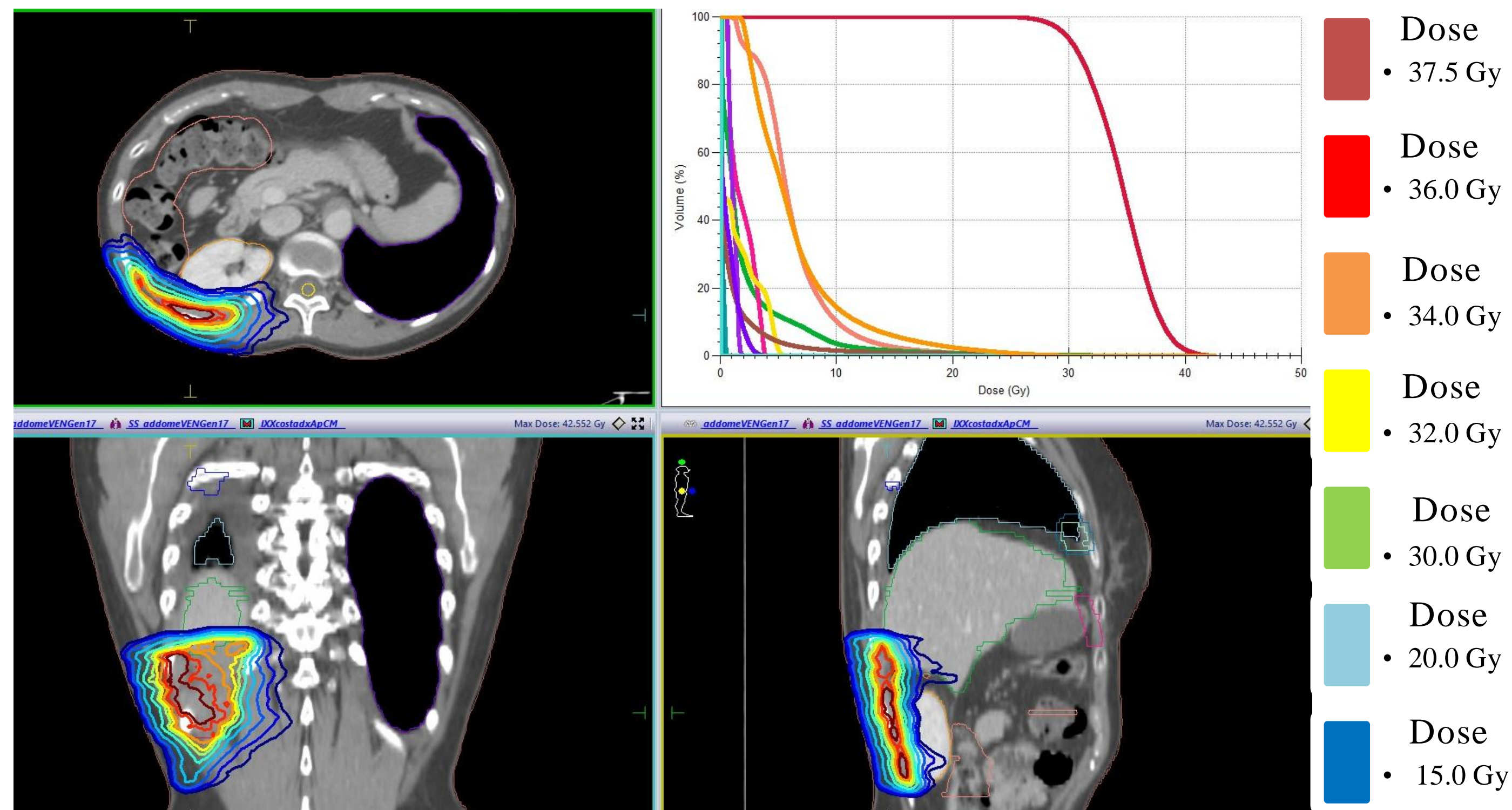


Figure 1: Progression free survival (months)

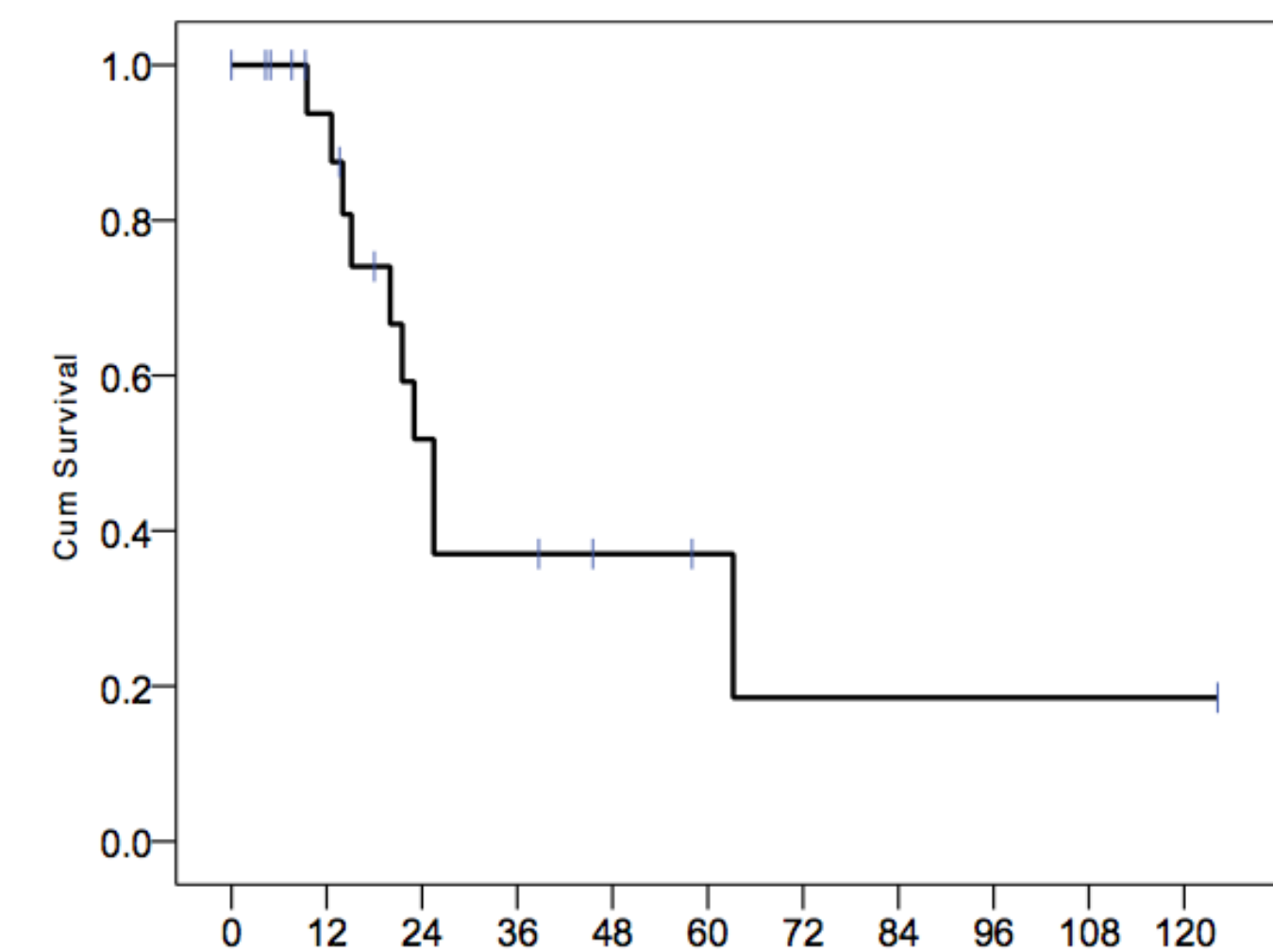
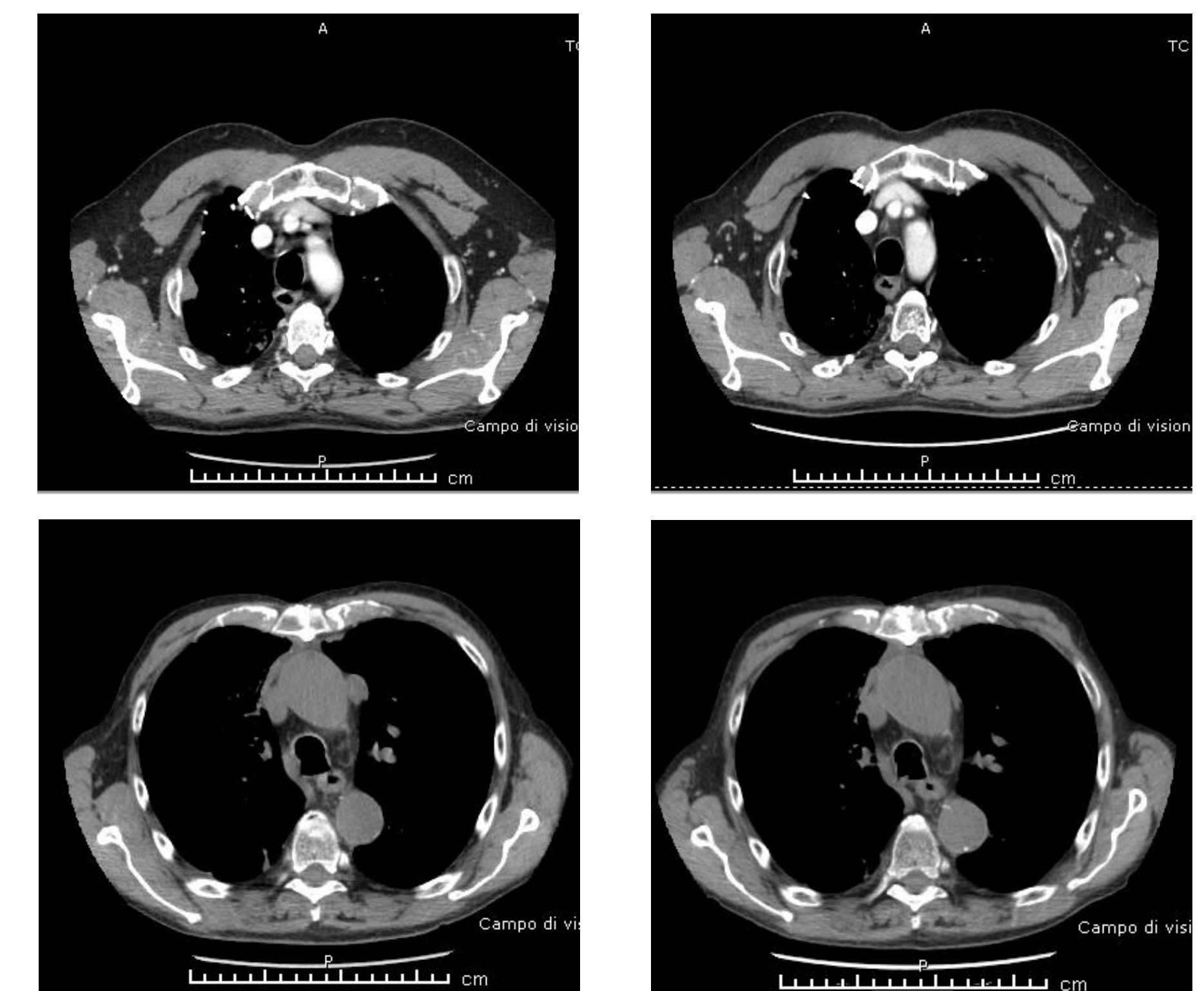


Figure 2: Time to local failure (months)



Conclusions

Conclusion: SBRT of pleural metastases is feasible and offer an interesting local control of diseases. The impact of this treatment on patients' survival is hardly predictable because of the heterogenous clinical behavior of thymomas.