

# Intensified Adjuvant Treatment for Resected Head and Neck Angiosarcoma

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## INTRODUCTION

- Previous studies have highlighted the poor survival of patients with cutaneous angiosarcoma of the head and neck (10-54%).<sup>1,2</sup>
- Currently, there is no established and standardized treatment regimen in cutaneous angiosarcomas of the head and neck.
- Due to the low incidence of this malignancy, most publications investigating the role of chemotherapy in addition to surgery and radiation have been case reports and small case series.<sup>1,2</sup>

## OBJECTIVE

To elucidate if treatment intensification by chemotherapy or increased radiation dose offers a survival benefit, and if the sequence of treatment administration is an important consideration

## METHODS

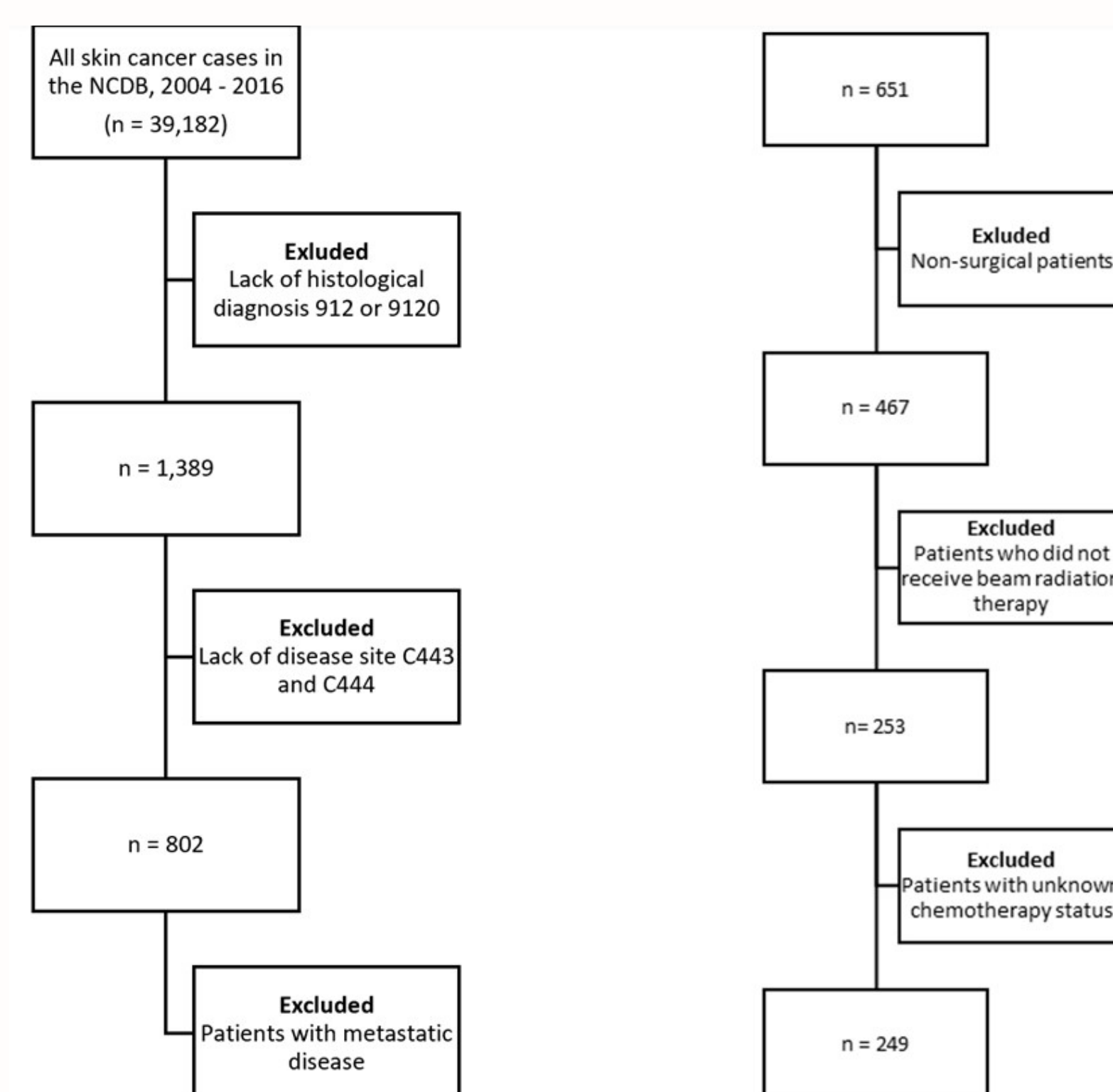


Fig 1. Patient selection flowchart of non-metastatic cutaneous angiosarcoma of the head and neck from the NCDB, 2004 – 2016. NCDB indicates National Cancer Database.

## RESULTS

	Treatment Modality Surgery and radiation	Surgery and chemoradiation	P value
Overall, n (%)	198 (79.5%)	51 (20.5%)	
Age, mean (SD)	74.5 (10.6)	71.2 (8.8)	0.100
Sex, n (%)			
Male	144 (72.7%)	35 (68.6%)	0.561
Female	54 (27.3%)	16 (31.4%)	
Race, n (%)			
White	185 (93.4%)	48 (94.1%)	0.859
Other	13 (6.6%)	3 (5.9%)	
Ethnicity, n (%)			
Non-Spanish	186 (93.9%)	48 (94.1%)	0.743
Hispanic	5 (2.5%)	2 (3.9%)	
Unknown	7 (3.5%)	1 (2.0%)	
Insurance Status, n (%)			
Not insured	2 (1.0%)	0 (0%)	0.247
Private Insurance	52 (26.3%)	14 (27.5%)	
Medicaid	1 (0.5%)	0 (0%)	
Medicare	137 (69.2%)	34 (66.7%)	
Other Government	4 (2.0%)	0 (0%)	
Unknown	2 (1.0%)	3 (5.9%)	
Facility Type, n (%)			
Community Cancer Program	8 (4.0%)	1 (2.0%)	0.563
Comprehensive Community Cancer Program	54 (27.3%)	11 (21.6%)	
Academic/Research Program	115 (58.1%)	35 (68.6%)	
Integrated Network Cancer Program	21 (10.6%)	4 (7.8%)	
Charlson Comorbidity Index, n (%)			
0	156 (78.8%)	42 (82.4%)	0.799
1	32 (16.2%)	7 (13.7%)	
2	7 (3.5%)	2 (3.9%)	
≥ 3	3 (1.5%)	0 (0%)	
Alive, n (%)	63 (31.8%)	19 (37.3%)	0.462

Table 1. Descriptive statistics for primary angiosarcoma of the Head and Neck. National Cancer Database 2004 – 2016.

	Treatment Modality Surgery and radiation	Surgery and chemoradiation	P value
Tumor Size, n (%)			
< 5 cm	101 (51.0%)	16 (31.4%)	0.040
≥ 5 cm	45 (22.7%)	15 (29.4%)	
Unknown	52 (26.3%)	20 (39.2%)	
Nodal Status, n (%)			
Negative	189 (95.5%)	45 (88.2%)	0.053
Positive	9 (4.5%)	6 (11.8%)	
Margins, n (%)			
Negative	130 (65.7%)	27 (52.9%)	0.088
Positive	61 (30.8%)	19 (37.3%)	
Unknown	7 (3.5%)	5 (9.8%)	
High Risk, n (%)	89 (44.9%)	35 (68.6%)	0.003

Table 2. Tumor characteristics compared by treatment modalities. National Cancer Database 2004 - 2016

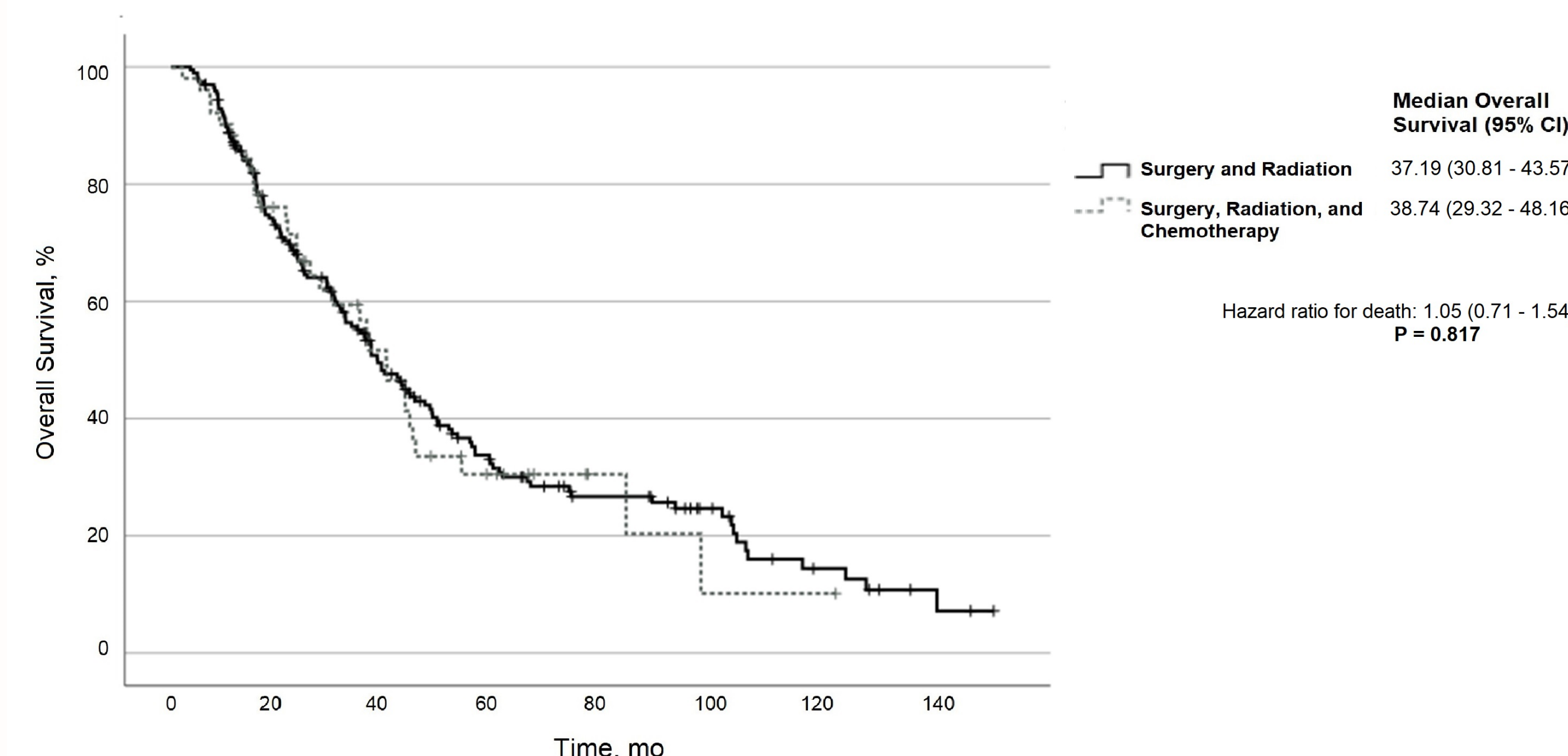


Fig 2. Comparison of overall survival among patients who received surgery and radiation and patients who received trimodality treatment with surgery, radiation therapy, and chemotherapy

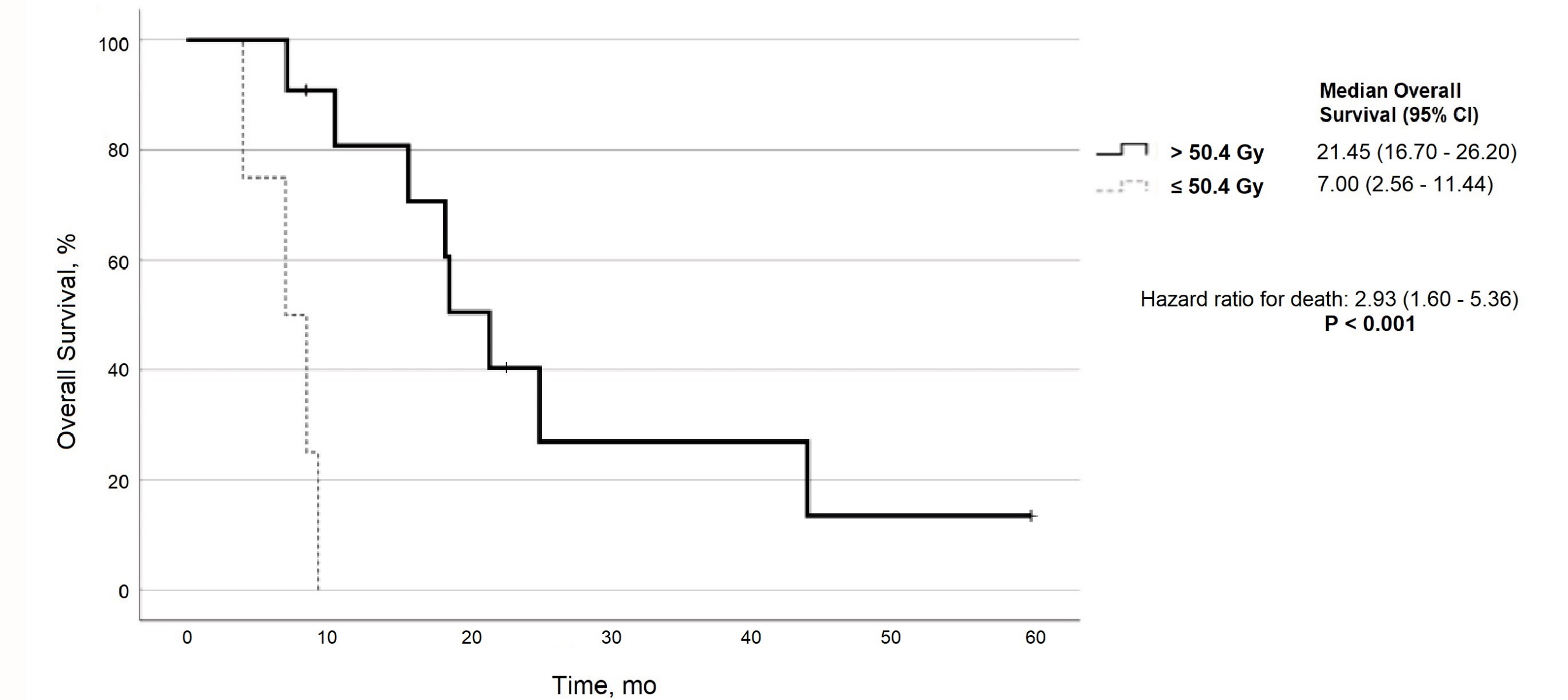


Fig 3. Comparison of overall survival among patients with node positive disease according to a 50.4 Gy dose cutoff

## DISCUSSION

- Chemotherapy, regardless of sequence of administration, was not associated with significantly improved overall survival across strata of risk factors.
- However, previous studies suggest that chemotherapy should be considered for patients with “subclinical metastasis.”<sup>3</sup>
- Higher radiation doses appear to be prognostic for high-risk disease.

## CONCLUSIONS

- Data supports radiation dose intensification in the range of 60-66 Gy for node positive disease.
- Future randomized control trials should be considered to understand how permutations of surgery, chemotherapy, and radiation therapy impact survival.

## REFERENCES

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