

# Stem Cell Transplantation is a Treatment of Choice in Adult Patients with Medulloblastoma; Single Center, Retrospective Analysis

MD. Ramazan ACAR, MD. Nuri KARADURMUŞ  
Gülhane Training and Research Hospital, Ankara

# Introduction

- Medulloblastom is the most common central nervous system embryonal tumor of childhood, accounting for 25% of all intracranial neoplasms. In contrast, adult medulloblastom is exceedingly rare and account for <1% of intracranial tumors(1).
- Current conventional management of adult medulloblastom includes maximum safe resection, followed by craniospinal radiation with or without concurrent adjuvant chemotherapy depending on clinical risk stratification.
- In metastatic high risk patients upfront chemotherapy can be chosen. And also autologous stem cell transplation can be chosen.

# Tools and Equipments

- In Gülhane Training and Research Hospital 8 adult medulloblastom patients had autologous stem cell transplantation as a treatment option, between November 2016 and October 2019.
- The data of those patients were analyzed retrospectively.

# Findings

- We choosed ICE regime for high dose chemotherapy before stem cell transplation.
- Maximum follow up time was 19 months and minimum follow up time was 2 months after stem cell transplantations.
- Only one patient developed a disease progression and died at 13 months.
- The others are alive and dont have disease progression.
- They are coming for routine follow up.

# Conclusion

- In patients with metastatic high-risk medulloblastoma, autologous stem cell transplantation is a good option with acceptable and manageable side-effect profile.

THANK YOU

# Treatment of synchronous bilateral breast cancer with different devices using arc-intensity modulated radiotherapy

SUHEYLA AYTAC ARSLAN, MD



# Background & Aim

- RT of synchronous bilateral breast cancer (SBBC) is challenging if regional lymphatics included.
- Conventional RT require multiple fields and may cause cold and hot spots leading to increased side effects and decreased disease control.
- IMRT can achieve more homogeneous dose distributions and better organ sparing
- To review the clinical features and dosimetric data of patients with bilateral breast cancer who underwent bilateral breast / chest wall and regional lymphatic field irradiation using arc-imrt with different devices (helical tomotherapy (HT) and Elekta versa-HD (EV) ) retrospectively.



# Metod

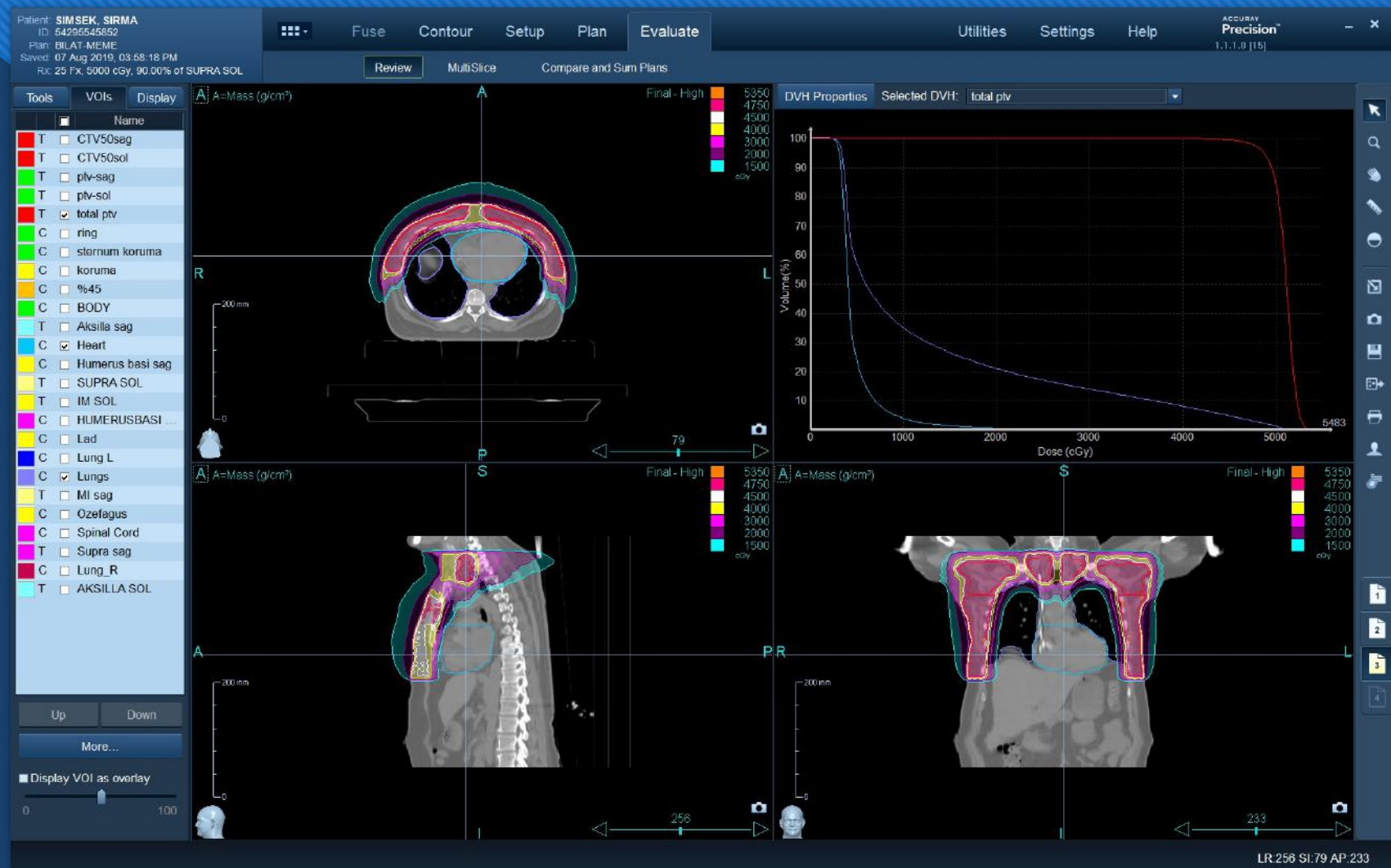
- 2015-2018
- Total 12 pts
- Patients' files
- Dose-volume histograms (PTVmin, PTVmax, V95% and V105% for PTV, V20 and V5 for lung, D50, V25 and heart max dose for heart, V35 for esophagus were analyzed).
- The SPSS (v26) was used for the analysis and the difference between the treatment groups was calculated by Mann Whitney U test.  $p < 0.05$  was considered significant.

Age	c Stage	Surgery	Pathology	p Stage	Hormon status	RT
40	R: T2N1 L: T2N0	R:MRM+AD L:MRM+AD	Invasive Ductal	R:T1N2 L:T1N1	ER+, PR-, HER2-	Bil CW+SCF+Axilla
59	R: T3N1 L:T3N0	R:MRM+AD L:MRM+AD	Mixed type	R:T3N0 L:T3N3	ER+, PR-, HER2-	Bil CW+SCF+Axilla+MI
29	R: T0N0 L: T2N3c	R:MRM+AD L:MRM+AD	Invasive Ductal	R T0N1 L: T0N1 Mx	ER-, PR+, HER2-	Bil CW+SCF+Axilla+MI
42	R: T2N0 L: T3N1 M1	R:MRM+AD L:MRM+AD	Invasive Lobuler	R: T2N0 L: T3N3	ER+, PR+, HER2-	Bil CW+SCF+Axilla+MI
35	R: TXN1 L: TXN1	R:BM+SLND L:MRM+AD	DCIS Invasive Ductal	R: T0N0 L: T2N1	ER+, PR+, HER2+	Bil CW+SCF+Axilla+MI
41	R: T1N1 L: T2N1	R:MRM+AD L:MRM+AD	Invasive Ductal	R: T1N1 L: T1N0	ER+, PR+, HER2+	Bil CW+SCF+Axilla+MI
64	R: T4N1 L: T4N1 M1	-	Invasive Ductal	-	ER+, PR+, HER2-	Bil CW+SCF+Axilla+MI
31	R: T2N2 L: T2N2 M1	R:MRM+AD L:MRM+AD	Invasive Ductal	R: T0N2 L: T0N0	ER+, PR+, HER2-	Bil CW+SCF+Axilla+MI
72	R: T4N2 L: T4N2	R:Lum+AD L:MRM+AD	Mucoepidermoid	R: T4N2 L: T4N2	ER-, PR-, HER2-	Bil CW+SCF+Axilla+MI
48	R: T1N2 L: T1N1	R:MRM+AD L:MRM+AD	Invasive Ductal	R: T1N2 L: T1N1	ER+, PR+, HER2+	Bil CW+SCF+Axilla
60	R: T1N1 L: T1N1	R:Lum +SLND L:Lum +SLND	Invasive Lobuler Invasive Ductal	R: T1N0 L: T1N1	ER+, PR+, HER2-	Breast+SCF+Axilla+MI
48	R: T4N2 L: T2N3	R:MRM+AD L:Lum +AD	Invasive Ductal	R: T4N2 L: T2N3	ER+, PR+, HER2-	Boost 10 Gy Bil CW+SCF+Axilla+MI Breast+SCF+Axilla+MI +Boost 10 Gy

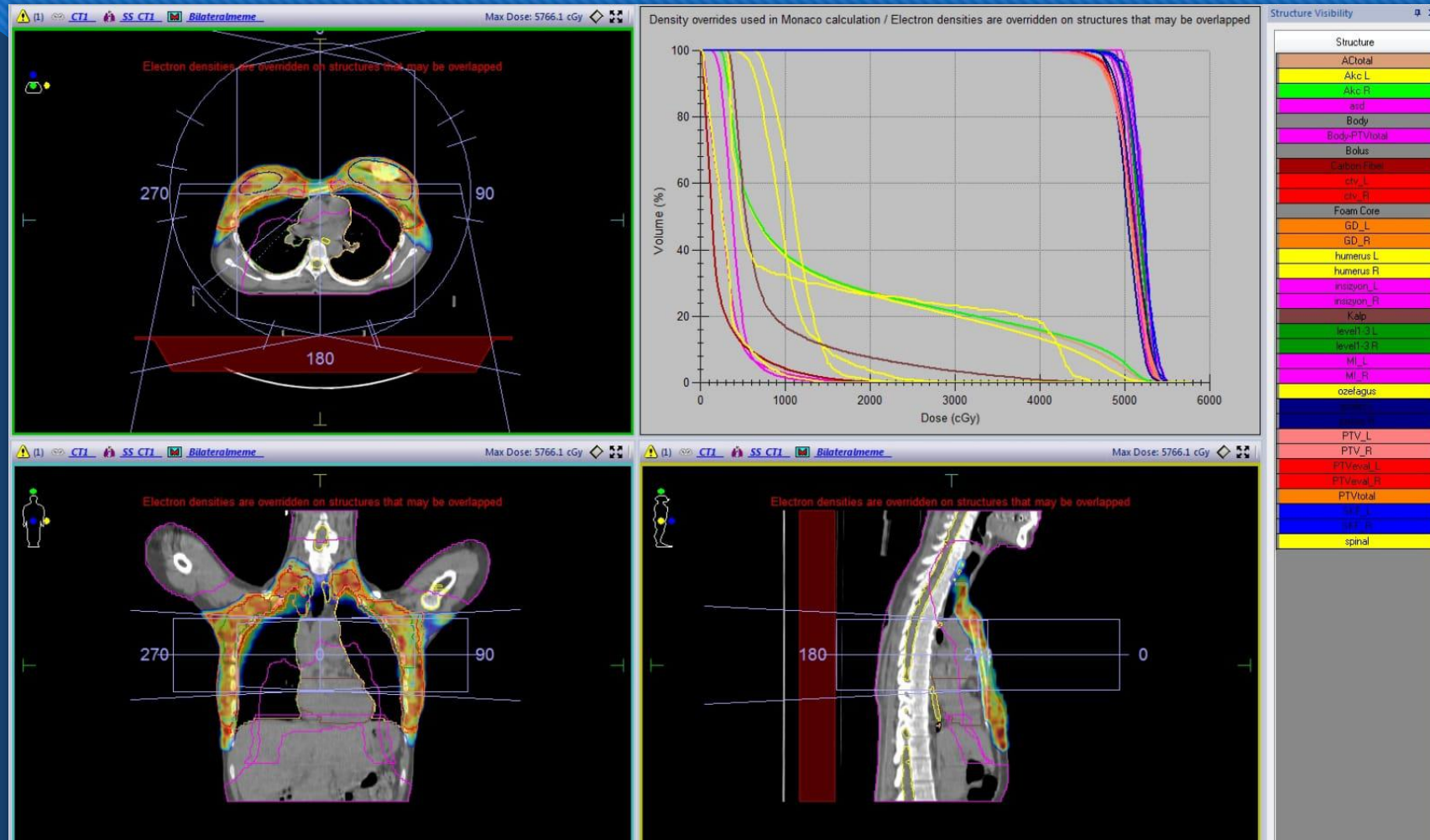
Patient ID	Lung V20(%)	Lung V5(%)	Heart Mean(Gy)	Heart V25(%)	Heart Max(Gy)	Esophagus V35(%)	PTV Max(Gy)	PTV Min(Gy)	PTV V47.5(%)	PTV V52.5(%)
	24.78	47.54	04.15	0.61	35.82	25.40	55.92	18.40	92.97	5.55
	23.14	45.82	07.62	6.06	50.77	0	57.40	25.78	98.04	4.21
	28.06	53.79	19.20	31.10	44.07	17.07	53.47	26.97	78.96	0.13
	28.37	63.06	12.72	8.52	50.29	0.56	56.58	17.19	96.31	10.39
	25.01	64.90	11.28	30.98	52.07	8.53	56.05	27.32	97.21	56.80
	20.12	59.48	12.33	6.76	47.30	11.92	56.30	28.80	95.05	24.12
	20.36	60.79	08.51	4.56	46.66	4.03	58.46	27.91	96.20	8.80
	29.00	92.00	13.40	14.2	53.50	27.00	56.03	33.60	96.70	8.60
	28.70	67.90	08.30	4.50	50.30	7.56	57.20	29.00	94.40	19.00
Total	29.00	79.00	08.00	2.45	47.40	0.07	55.10	40.70	95.00	3.10
	23.00	82.00	05.20	0	14.00	0.15	59.00	38.00	95.00	44.00
	27.00	78.00	08.70	4.50	45.00	15.20	56.00	28.60	93.80	7.90



# RT plan-HT



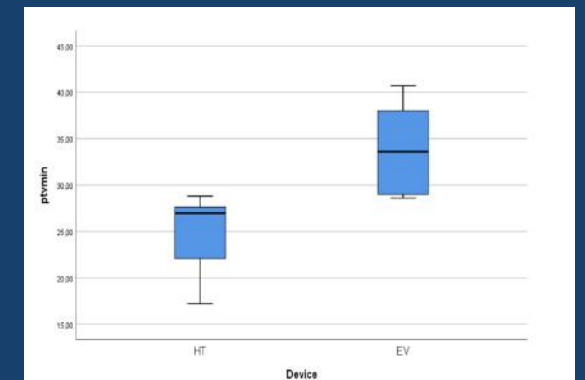
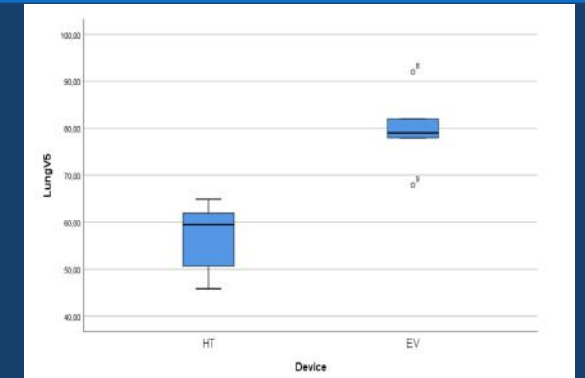
# RT plan-EV





# Results

- The median follow-up: 19 months (range, 3-37).
- Acute radiodermatitis (n=3), esophagitis (n=5) none  $\geq$  grad 3
- No long term toxicity
- No locoregional recurrence
- One pt died / liver met
- Higher  $PTV_{min}$  was achieved with EV (p0.007)
- Lower Lung  $V_5$  was achieved with HT (p0.004)





# Conclusions

- Both treatment options are effective and safe.
  - Longer follow up
  - More patients
- } longterm side effects!

Thank you!