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Radioterapia ipofrazionata con tecnica VMAT nel trattamento radicale delle neoplasie polmonari in stadio III

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Background

- Improving outcomes for patients with stage III disease remains a challenge despite multiple decades of clinical trials
- RTOG 0617 trial resulted in worse survival and reduced patient reported quality of life
- Overall treatment time (OTT) and BED could play a significant role: hypofractionation

Table 2 Studies With Nonconcurrent Chemoradiotherapy

Study	Dose	Fraction	Dose/fx	Acute BED	Late BED	3 Year OS (%)	1 Year OS (%)
Schuster-Uitterhoeve (1993)[35]	60	20	3	78.0	120.0		57
Graham (1995)[36]	75	28	2.68	95.2	142.1	18	41
Bernier (1999)[37]	55	20	2.75	70.1	105.4		
Nguyen (1999)[38]	45	15	3	58.5	90.0		
Sun (2000)[39]	65	26	2.5	81.3	119.2		
Holloway (2004)[40]	84	35	2.4	104.2	151.2		
Lester (2004)[41]	55	20	2.75	70.1	105.4	22	57
Thirion (2004)[42]	72	24	3	93.6	144.0		68
Kepka (2009)[43]	56.7-60.9	21	2.7-2.9	72.0-78.5	107.7-119.8	19	69
Pemberton (2009)[12]	55	20	2.75	70.1	105.4	7	65
Bral (2010)[44]	70.5	30	2.35	87.1	125.7	18	65
Zhu (2011)[45]	65-68	25-26	2.6	81.9-85.8	121.3-127.3	32	68
Monaco (2012)[46]	67.5	30	2.25	82.7	118.1		
Amini (2012)[47]	45	15	3	58.5	90.0	12	53
Din (2013)[13]	55	20	2.75	70.1	105.4		
McPartlin (2013)[48]	55	20	2.75	70.1	105.4		
Osti (2013)[49]	60	20	3	78.0	120.0		75
Cannon (2013)[18]	57-85.5	25	2.28-3.42	70.0-114.7	100.3-183.0	29	
Belderbos (2007)[22,b]	66	24	2.75	84.2	126.5	22	69
Uitterhoeve (2007)[23,b]	66	24	2.75	84.2	126.5	19	53
Donato (2013)[32,b]	68.4	30	2.28	82.7	118.1		77[a]
Maguire (2012)[17,b]	55	20	2.75	70.1	105.4	27	83

Kaster TS, et al. Clin Lung Cancer. 2015

Methods and Materials

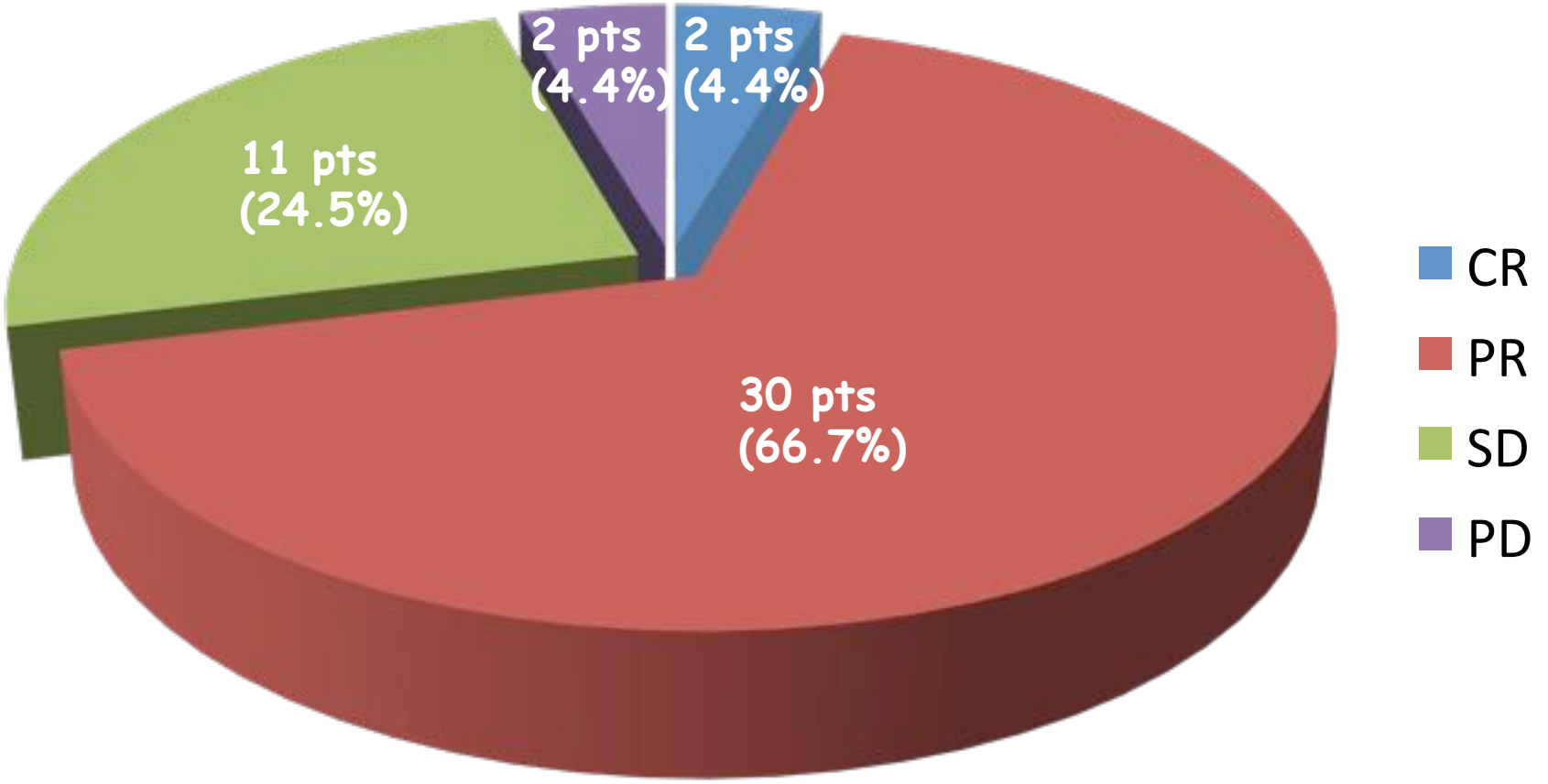
Primary end-point: toxicity

Secondary end-point: LC

No. of Patients	**58**
Mean age (range)	73 (43-86)
Gender (M:F)	52:6
Stage: **IIIA** **IIIB**	 **31** **27**
Total Dose / Frs	
56Gy/20fr	18 (31%)
55Gy/22fr	18 (31%)
50Gy/20fr	22 (38%)

Results

Median Follow-up 6 months (45 pts)



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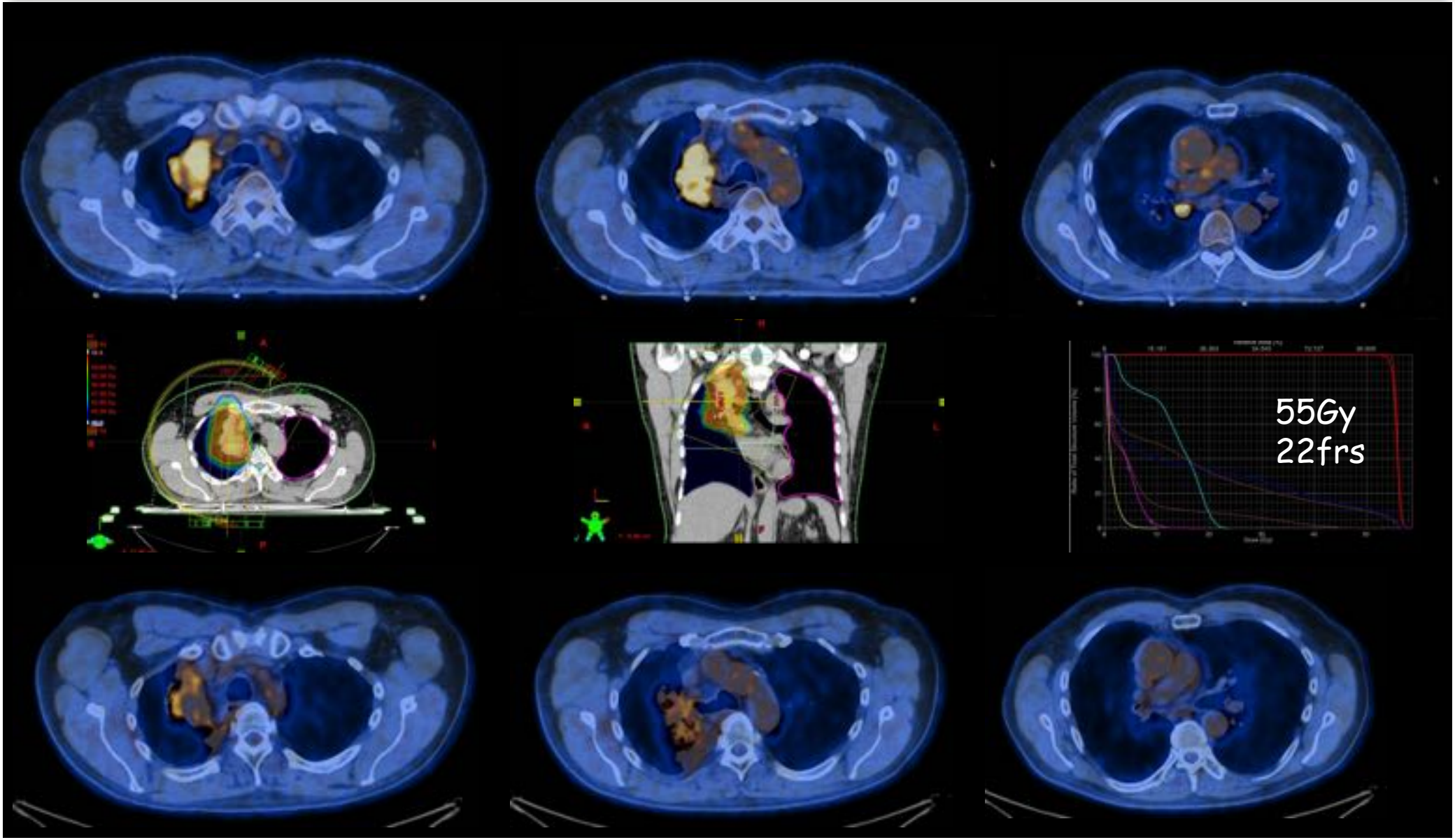
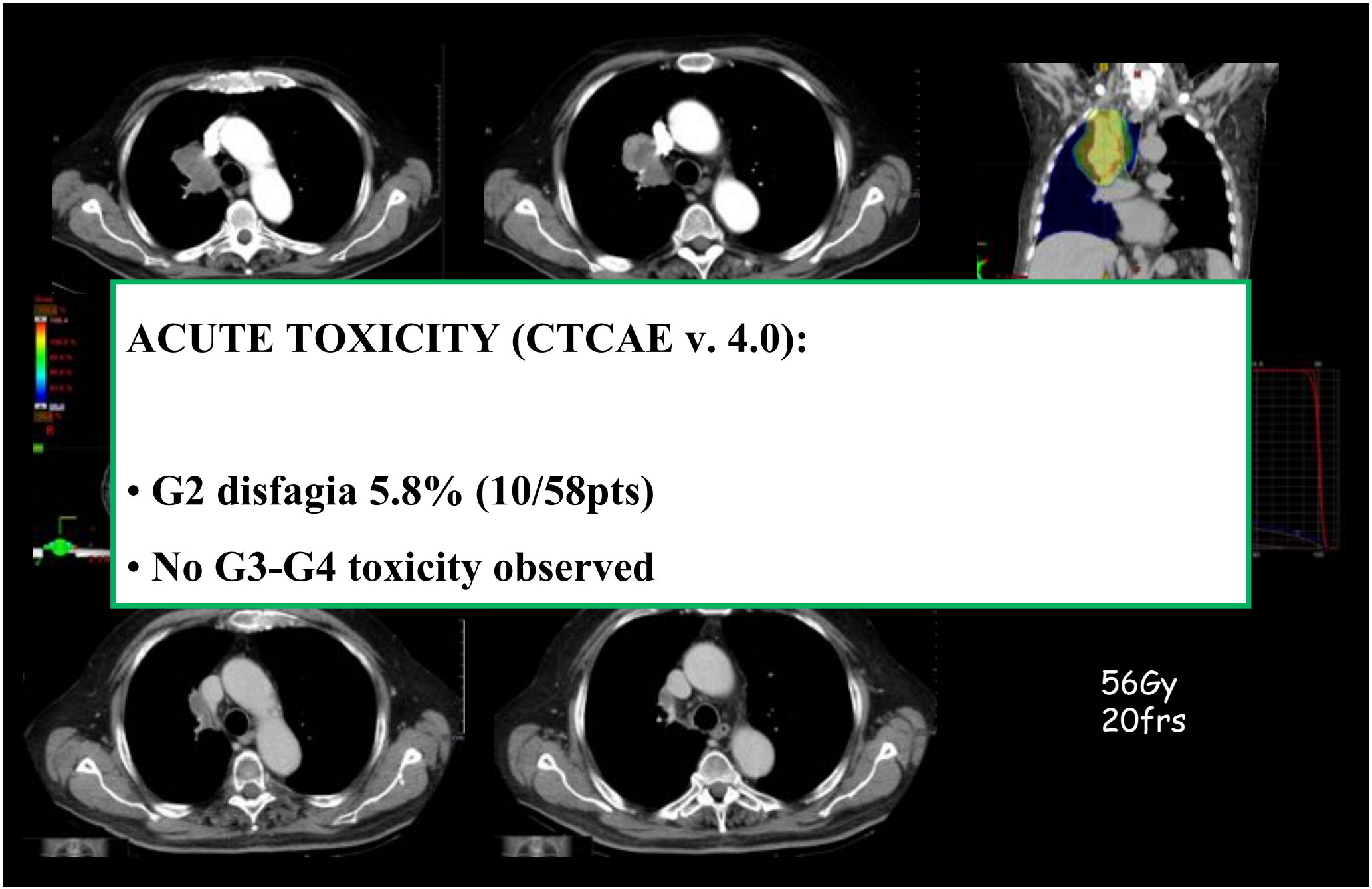
Results



Results

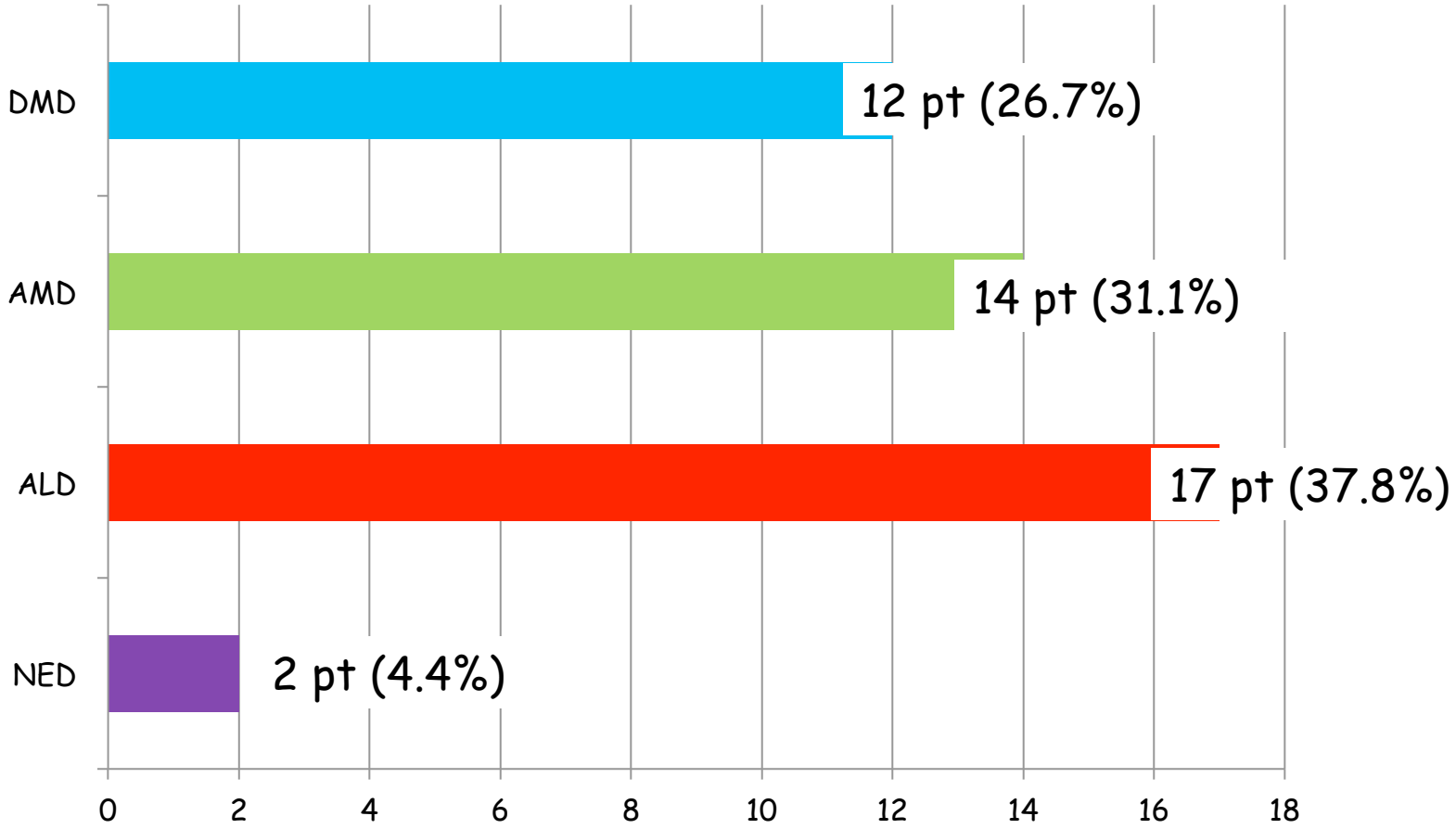


ACUTE TOXICITY (CTCAE v. 4.0):

- **G2 disfagia 5.8% (10/58pts)**
- **No G3-G4 toxicity observed**

56Gy
20frs

Results



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Conclusions

Feasibility: Low toxicity and good compliance

Efficacy: Promising local control rate

Future directions: Dose escalation and randomized trial