

TABLE 1: Patient and treatment characteristics

	VBSpCSI n=25	Photon CSI n=13
Median age at treatment (y)	7 (3-16)	8 (2-15)
Median follow-up (mo)	13 (0-49)	52* (1-120)
Gender n (%)		
Male	20 (80)	11 (85)
Female	5 (20)	2 (15)
Medulloblastoma	19 (76)	12 (92)
Standard	11 (44)	8 (62)
High	8 (42)	4 (33)
Chang Stage		
M ₀ (No metastases)	11 (58)	9 (69)
M ₁ (CSF only)	0 (0)	0 (0)
M ₂ (Intracranial)	3 (16)	0 (0)
M ₃ (Spinal)	5 (26)	3 (23)
M ₄ (Extra-axial)	0 (0)	0 (0)
Non-medulloblastoma	6 (32)	1 (8)
Nongerminomatous Germ Cell Tumor (NGGCT)	4	
Primitive Neuroectodermal Tumor (PNET)	1	
Ependymoma	1	
Anaplastic Astrocytoma		1
Chemotherapy prior or during RT n (%)	15 (60)	10 (77)
Before RT	7 (28)	1 (8)
During RT	8 (32)	9** (69)
CSI Dose n (%)		
23.4 Gy	10 (40)	7 (55)
≥36 Gy	15 (60)	6 (46)
* p < 0.0001		
** p = 0.042		

VBSpCSI= Vertebral body sparing proton craniospinal irradiation

CSI = Craniospinal irradiation

TABLE 2: Comparison of Acute Toxicities

Toxicity	VBSpCSI n (%)	Photon CSI n (%)	p-value
Gastrointestinal \geq Grade 2	6 (24.0)	10 (76.5)	0.005
Esophagitis (any Grade)	0 (0.0)	5 (38.4)	0.0026
Nausea/vomiting \geq Grade 2	6 (24.0)	8 (61.5)	0.035
Dysphagia	1 (4.0)	1 (7.7)	1.00
Hematologic \geq Grade 2	19 (82.6)	10 (100)	0.289
Transfusion Required	5 (21.7)	6 (60.0)	0.049
Thrombocytopenia \geq Grade 2	5 (21.7)	2 (20.0)	1.00
Leukopenia \geq Grade 2	17 (73.9)	7 (70.0)	0.681
Neutropenia \geq Grade 2	9 (42.9)	5 (55.6)	0.694
Lymphopenia (Grade 4)	7 (33.3)	7 (77.8)	0.046

VBSpCSI= Vertebral body sparing proton craniospinal irradiation

CSI = Craniospinal irradiation