**S3 Table.** Type of SMNs according to the primary tumor types

| Primary tumor type | Sub-classification (No. of patients with SMN/No. of patients) | Type of secondary malignant neoplasm |
|---|---|---|
| Brain tumor | Embroynal tumor (9/127)[a)] | 2 Colorectal carcinoma |
| | | 2 Thyroid carcinoma (1 follicular and 1 papillary) |
| | | 1 Osteosarcoma |
| | | 1 Desmoid tumor |
| | | 1 Renal cell carcinoma |
| | | 1 Malignant menigioma |
| | | 1 Ovarian carcinoma |
| | | 1 Glioblastoma multiforme |
| | IC-GCT (3/126) | 1 MDS |
| | | 1 NRSTS |
| | | 1 Malignant menigioma |
| | Glioma/other (1/160) | 1 Acute biphynotypic leukemia |
| Neuroblastoma | TBI-based HDCT (12/100)[b)] | 3 Papillary thyroid carcinoma |
| | | 3 Osteosarcoma |
| | | 2 Renal cell carcinoma |
| | | 2 NRSTS |
| | | 1 Colorectal carcinoma |
| | | 1 Urothelial carcinoma |
| | | 1 AML |
| | non-TBI–based HDCT (8/128) | 4 Hematologic malignancy (2 MDS, 1 AML, 1 ALL) |
| | | 1 Colorectal carcinoma |
| | | 1 Glioblastoma multiforme |
| | | 1 Papillary thyroid carcinoma |
| | | 1 Inflammatory myofibroblastic tumor |
| | No HDCT (5/175) | 2 Papillary thyroid carcinoma |
| | | 2 Colorectal carcinoma |
| | | 1 Renal cell carcinoma |
| Sarcoma | Ewing/PNET (5/51) | 2 Hematologic malignancy (1 AML, 1 MDS) |
| | | 1 Papillary thyroid carcinoma |
| | | 1 Osteosarcoma |
| | | 1 Breast carcinoma |

| | |
|---|---|
| Osteosarcoma (4/63)[c)] | 3 AML<br>1 NRSTS<br>1 Tongue squamous cell carcinoma |
| Rhabdomyosarcoma (4/67) | 3 hematologic malignancy (1 AML, 1 MDS, 1 LCH)<br>1 Gastric carcinoma |
| NRSTS (2/41) | 1 MDS<br>1 Paraganglioma |

ALL, acute lymphoblastic leukemia; AML, acute myeloid leukemia; HDCT, high-dose chemotherapy; IC-GCT, intracranial germ cell tumor; LCH, Langerhans cell histiocytosis; MDS, myelodysplastic syndrome; NRSTS, non-rhabdomyosarcoma soft tissue sarcoma; PNET, primitive neuroectodermal tumor; SMN, secondary malignant neoplasm; TBI, total body irradiation. [a)]A patient who had a pathogenic variant of APC gene sequentially developed colorectal cancer and desmoid tumor, [b)]One neuroblastoma patient who received TBI developed thyroid carcinoma and osteosarcoma sequentially, [c)]One osteosarcoma patient developed tongue squmous cell cacinoma and AML sequentially.