|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Case | Primary histology | Radiation dose and technique | Previous radiation to the same area | Total BED for tumor (Gy)\* | Total BED for brain parenchyma (Gy)\*\* |
| 1 | Esophageal carcinoma | SRS (15 Gy/1 fraction) | No | 37.50 | 127.50 |
| 2 | Breast cancer | SRS (21 Gy/3 fractions) | No | 35.70 | 94.50 |
| 3 | Non-small cell lung carcinoma | SRS (15 Gy/1 fraction) | No | 37.50 | 127.50 |
| 4 | Melanoma | SRS (24 Gy/3 fractions) | No | 43.20 | 120 |
| 5 | Non-small cell lung carcinoma | SRS (27 Gy/3 fractions) | WBRT (30 Gy/10 fractions) 3 years earlier | 90.30 | 223.50 |
| 6 | Melanoma | SRS (27 Gy/3 fractions) | No | 51.30 | 148.50 |
| 7 | Colorrectal carcinoma | SRS (27 Gy/3 fractions) | No | 51.30 | 148.50 |
| 8 | Metastasic melanoma | SRS (21 Gy/3 fractions) | SRS (15 Gy/1 fraction) 3 years earlier | 73.20 | 222 |
| 9 | Meningioma | IMRT (60 Gy/30 fractions) | No | 100 | 120 |
| 10 | Meningioma | IMRT (54 Gy/30 fractions) | IMRT (60 Gy/30 fractions) 1 year earlier | 186.40 | 222.60 |
| 11 | Meningioma | IMRT (54 Gy/30 fractions) | No | 86.40 | 102.60 |
| 12 | Meningioma | IMRT (54 Gy/30 fractions) | No | 86.40 | 102.60 |
| 13 | Meningioma | IMRT (54 Gy/30 fractions) | IMRT (60 Gy/30 fractions) | 186.40 | 148.50 |
| 14 | Meningioma | IMRT (59.4 Gy/33 fractions) | No | 95.04 | 112.86 |
| 15 | Nasopharyngeal carcinoma | IMRT (50.6 Gy/46 fractions) | IMRT (70 Gy/35 fractions) 3 years earlier | 140.17 | 218.43 |

\*An alpha/beta ratio = 3 was used for meningioma and alpha/beta ratio = 10 was used for brain metastases and nasopharyngeal carcinoma

\*\*An alpha/beta ratio = 2 was used for brain parenchyma

*WBRT - Whole Brain Radiotherapy, SRS – Stereotactic Radiosurgery; IMRT – Intensity Modulated Radiation Therapy, BED – Biologically Effective Dose*