**Table 1** Tumor location of metastatic spinal malignancy.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Tumor Location | | | | |
|  | Ib | IIb | IIIb | IV | V |
| Primary Cancer |  |  |  |  |  |
| Renal Cancer 12 | 6 | 1 | 1 | 3 | 1 |
| Thyroid Cancer 3 | 1 | 1 |  | 1 |  |
| Breast Cancer 13 | 5 | 3 | 1 | 4 |  |
| Lung Cancer 38 | 16 | 8 | 2 | 10 | 2 |
| Prostate Cancer 7 | 4 | 1 |  | 2 |  |
| Hepatic Cancer 3 | 4 | 1 |  | 2 |  |
| Colon Cancer 1 | 1 |  |  |  |  |
| Gastric Cancer 2 |  | 1 |  | 1 |  |
| Esophageal Cancer 1 |  |  |  | 1 |  |
| Bile Duct Cancer 1 |  | 1 |  |  |  |
| Pancreatic Cancer 1 | 1 |  |  |  |  |
| Cervical Cancer 3 | 2 | 1 |  |  |  |
| Bladder Cancer 1 |  | 1 |  |  |  |

**Table 2** Characteristics of patients in different groups.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Groups | | Non-embolization Group | | | Embolization Group | | Offending Embolization Group | | P-Value |
| Number of Cases | | 20 | | | 24 | | 42 | |  |
| Gender |  | | |  | |  | | 0.179 | |
| Male | | 12 | | | 13 | | 21 | |  |
| Female | | 8 | | | 11 | | 21 | |  |
| Age (Years) | | 64.4±11.2 | | | 59.4±11.1 | | 57.5±10.2 | | 0.065 |
| SINS | | 11.2±2.9 | | | 12.7±2.3 | | 11.6±3.2 | | 0.260 |
| ESCC Grade |  | | |  | |  | | 0.356 | |
| 1 | | | 3 | | 1 | | 8 | |  |
| 2 | | | 8 | | 7 | | 15 | |  |
| 3 | | | 9 | | 16 | | 19 | |  |
| Primary Cancer  Renal Cancer 12  Thyroid Cancer 3  Breast Cancer 13  Lung Cancer 38  Prostate Cancer 7  Hepatic Cancer 3  Colon Cancer 1  Gastric Cancer 2  Esophageal Cancer 1  Bile Duct Cancer 1  Pancreatic Cancer 1  Cervical Cancer 3  Bladder Cancer 1 | | | 2  1  12  3  1  1 | | 6  1  4  7  2  1  1  1  1 | | 4  2  8  19  2  1  1  1  1  2  1 | |  |
| Affected Part of Vertebra | | |  | |  | |  | |  |
| Thoracic Vertebra | | | 2 | | 14 | | 19 | |  |
| Lumbar Vertebra | | | 18 | | 10 | | 23 | |  |
| Surgical Methods | | |  | |  | |  | | 0.859 |
| 1 | | 4 | | | 5 | | 7 | |  |
| 2 | | 5 | | | 7 | | 15 | |  |
| 3 | | 3 | | | 6 | | 6 | |  |
| 4 | | 8 | | | 6 | | 14 | |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Tumor Location | | | The Location of Offending Arterial Embolization | | |
|  | Ib②, IIIb | IIb | Ib①, IV, V | Spinal Branches | Dorsal and Transverse Branches | Segmental Arteries |
| Primary Cancer  Renal Cancer 4  Thyroid Cancer 2  Breast Cancer 8  Lung Cancer 19  Prostate Cancer 2  Liver Cancer 1  Gastric Cancer 1  Bile Duct Cancer 1  Pancreatic Cancer 1  Cervical Cancer 2  Bladder Cancer 1 | 2  1  3  10  1  1  1  1 | 1  1  2  4  1  1  1 | 1  3  5  1  1 | 1  1  2  7 | 1  1  2  4  1  1  1 | 2  4  8  1  1  1  1  1  1 |

**Table 3** Sites of tumor occurrence in vertebrae and offending arterial embolization

**Table 4** Comparison of patients’ characteristics during and after surgery among groups

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Surgical Methods | Non-embolization Group | Embolization Group | Offending Embolization Group | P-Value |
| Bleeding Volume | 4113.9±1537.0 | 1476.5±371.2 | 836.9±270.6 | <0.001 |
| Operation Time | 263.4±33.9 | 233.5±38.0 | 184.9±30.4 | <0.001 |
| Recurrence within 1 Year |  |  |  | 0.006 |
| Recurrence | 13 | 8 | 10 |  |
| No Recurrence | 7 | 16 | 32 |  |