**Table 1** Patients’ characteristics and procedures

Variables All RT

*N*=44 *N*=23

Gender

Men 24 (55%) 16 (70%)

Women 20 (45%)a 7 (30%)b

Median age (range) 62.5 (39, 88) 63 (41, 88)

Race

White 26 (59%) 14 (61%)

Black 16 (36%) 8 (35%)

Multiple 1 (2%) 1 (4%)

European 1 (2%) 0 (0%)

Breast cancer

No 25 (57%) 17 (74%)

Yes 19 (43%) 6 (26%)

Prostate cancer

No 26 (59%) 13 (57%)

Yes 18 (41%) 10 (43%)

Multiple myeloma

No 38 (86%) 19 (83%)

Yes 6 (14%) 4 (17%)

Imaging

MRI of the brain

No 3 (7%) 3 (13%)

Yes 41 (93%) 20 (87%)

Abdominal and thoracic CT

No 10 (23%) 8 (35%)

Yes 34 (77%) 15 (65%)

Pelvic CT

No 11 (25%) 9 (39%)

Yes 33 (75%) 14 (61%)

Whole body bone scan

No 12 (27%) 8 (35%)

Yes 32 (73%) 15 (65%)

Body part treated with RT

Clivus 15 (34%) 15 (65%)

Whole brain 8 (18%) 8 (35%)

Unknown 21(48%) -

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The count and the percentage values are used to express all the data, except for the age, which is expressed as the median and range (in brackets) values. aPercentage was calculated for the ratio of the number of all female patients and the number of all patients in the study (n=44). bPercentage was calculated for the ratio of the number of female patients who were treated with RT and the number of patients who received RT (n=23). Similar series of calculations were performed for all other data in their corresponding rows and columns. *CT* computed tomography, *MM* multiple myeloma, *RT* radiotherapy

**Table 2** Patients not treated with RT or with unknown RT status

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Cancer type No RT Unknown RT status

*N*=7 *N*=14

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Prostate cancer 5 (11%) 2 (5%)

Breast cancer 1 (2%) 11 (25%)

Breast cancer/MM 1 (2%) -

Prostate cancer/MM - 1 (2%)

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The data are shown as the count and the percentage values. Percentage was calculated for the ratio of the number of patients with cancer and the number of all the patients in the study (n=44). *MM* multiple myeloma, *RT* radiotherapy

**Table 3** Neurologic symptoms based on cancer type

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Cancer type Patients

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Headache

Yes 13 (30%)a

Breast cancer 6 (46%)b

Prostate cancer 3 (23%)

Multiple myeloma 3 (23%)

Diplopia

Yes 7 (16%)

Breast cancer -

Prostate cancer 4 (57%)

Multiple myeloma 2 (29%)

Lateral gaze deficit

Yes 6 (14%)

Breast cancer -

Prostate cancer 2 (33%)

Multiple myeloma 2 (33%)

Blurry vision

Yes 5 (11%)

Breast cancer 1 (20%)

Prostate cancer 2 (40%)

Multiple myeloma 1 (20%)

Chin numbness

Yes 5 (11%)

Breast cancer 1 (20%)

Prostate cancer 2 (40%)

Multiple myeloma 1 (20%)

Tongue deviation

Yes 4 (9%)

Breast cancer -

Prostate cancer 2 (50%)

Multiple myeloma 2 (50%)

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The data are shown as the count and the percentage values. aPercentage was calculated for the ratio of the number of all patients with headache and the number of all patients in the study (n=44). Similar calculations were performed for patients with other symptoms. bPercentage was calculated for the ratio of the number of breast cancer patients with headache and the number of all patients with headache. Similar calculations were performed for patients with other cancer types for each symptom.

**Table 4** Neurologic symptoms before and after RT

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Symptom Present before RT Improved after RT

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Headache 10 (43%)a 8 (80%)b

Diplopia 6 (26%) 5 (83%)

Lateral gaze deficit 6 (26%) 2 (33%)

Blurry vision 5 (22%) 2 (40%)

Chin numbness 4 (17%) 2 (50%)

Tongue deviation 4 (17%) 1 (25%)

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The data are shown as the count and the percentage values. aPercentage was calculated for the ratio of the number of patients with a headache before RT and the number of all RT-treated patients (n=23). bPercentage was calculated for the ratio of the number of patients who experienced lessening or resolution of their headache post-RT and the number of all patients with the headache before RT. Similar calculations were performed for patients with other symptoms in corresponding rows and columns. *RT* radiotherapy