

Introduction:

Thyroid carcinoma consists of just 1% of all malignancies but is the commonest malignant endocrine tumour. In Ireland, the incidence per annum is reported to be 2.3 per 100,000 women and 0.9 per 100,000 men.

Papillary thyroid carcinoma is the most common form of thyroid carcinoma consisting of 80 % of all cases. It occurs most commonly between the ages of 30 – 50 years. While these cancers are often locally invasive at diagnosis, distant metastases are rare at presentation. Follicular thyroid carcinoma, more commonly, tend to be metastatic at presentation, mainly to the bone and lung. There are very few case reports in the literature of papillary thyroid cancers presenting with distant metastases and even fewer detailing metastases to the pelvic organs. Distant metastases are noted in 1-3% of patients with thyroid cancer at initial diagnosis whereas 7-23% develop distant metastases during the course of the disease process. Patients who present with distant metastases at initial presentation have a worse prognosis than those without.

Case Report:

Initial Presentation

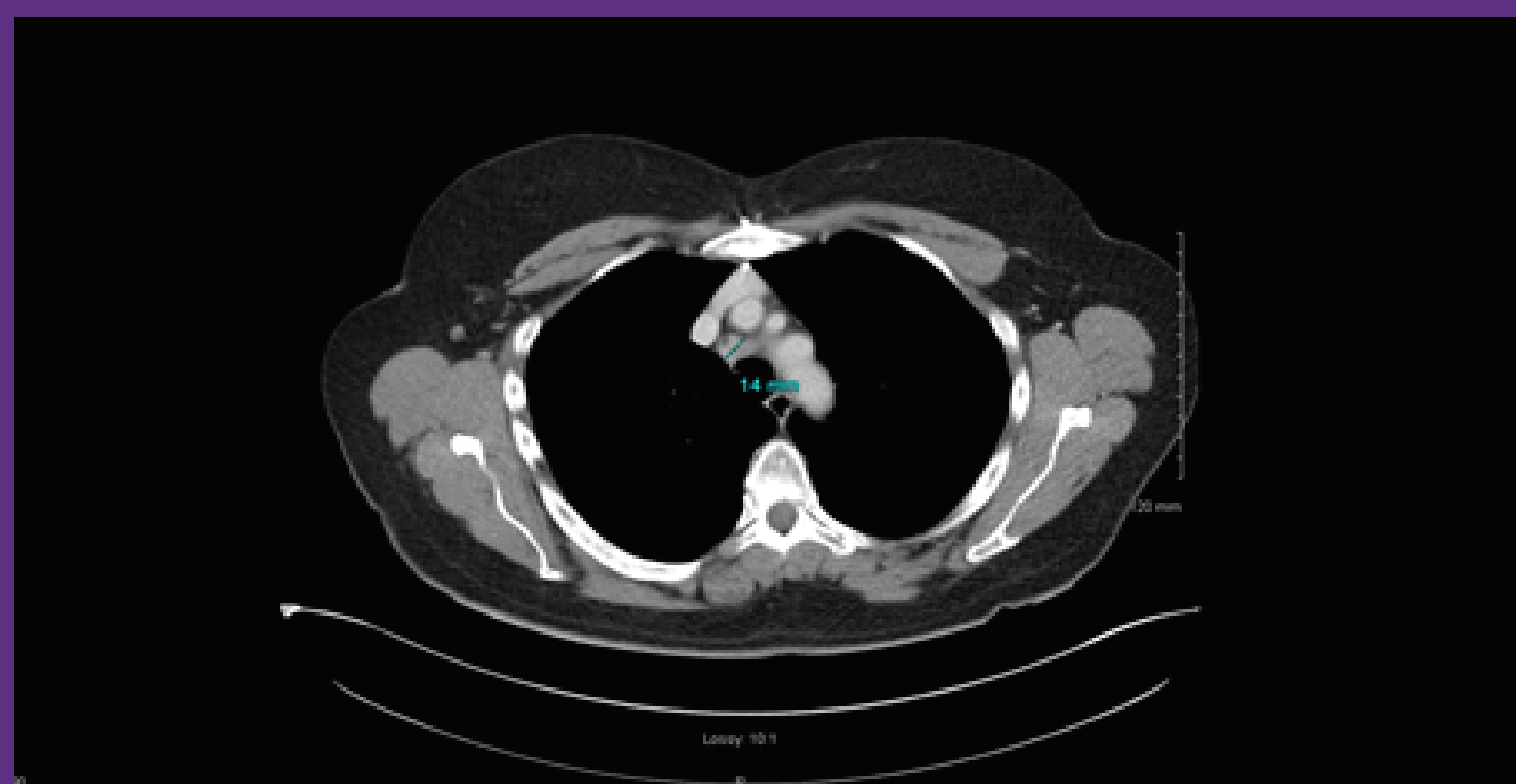
A 69-year-old woman was diagnosed with metastatic papillary thyroid carcinoma, having presented with post-menopausal vaginal bleeding. She had a total thyroidectomy with histology showing papillary thyroid carcinoma pT3N1b with maximum tumour diameter of 70mm. She then underwent a Total Abdominal Hysterectomy (TAH) and Bilateral salpingo-oophorectomy (BSO). The resected histology showed metastatic papillary thyroid adenocarcinoma in the uterus measuring 2.9cm x 2.4cm. Finally, the patient was then treated with radioactive iodine (RAI). The patient recovered well from this and the treatment was successful, resulting in elimination of all evidence of the disease.

Recurrence

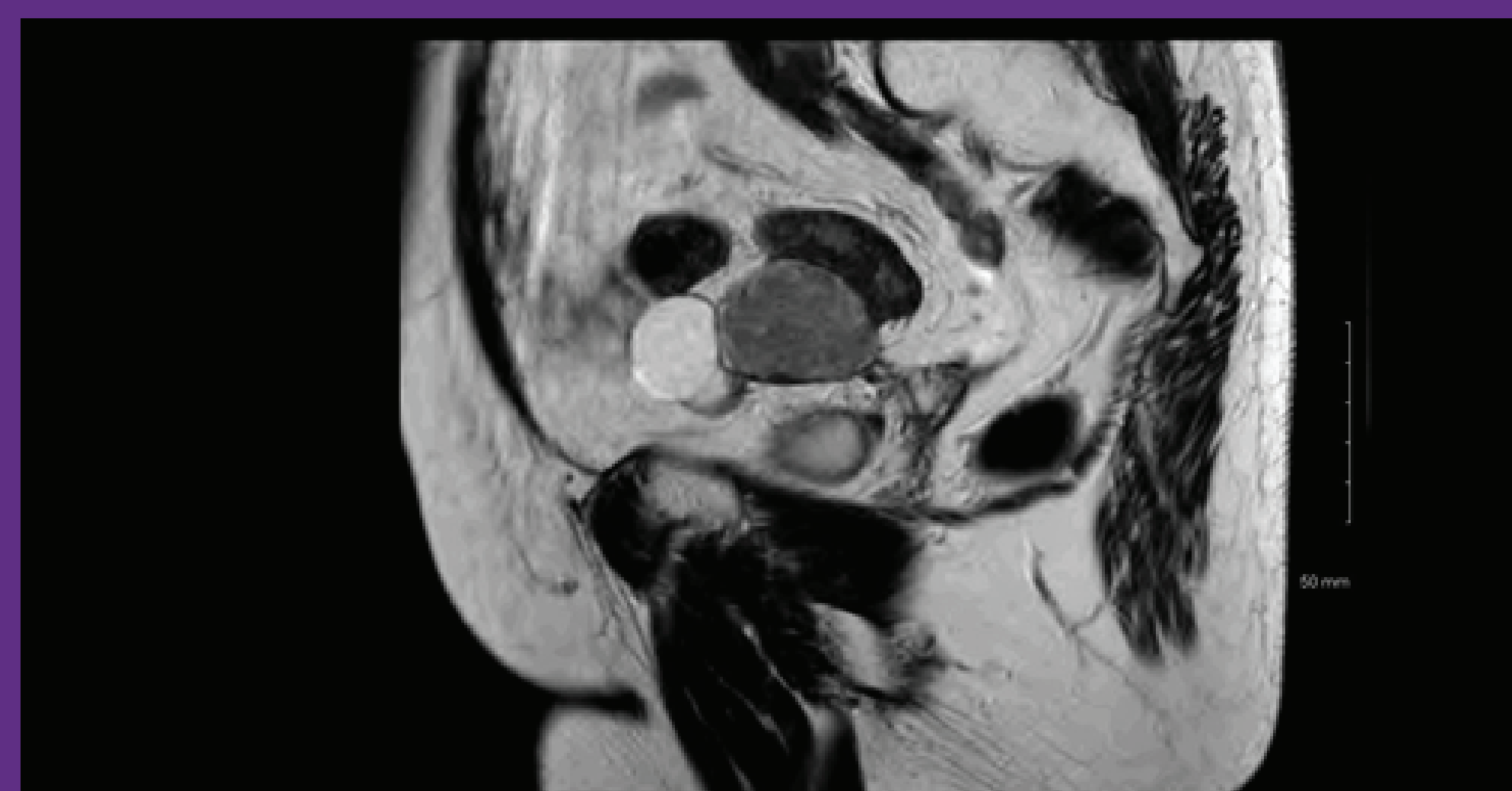
No evidence of disease was detected during follow up, until 2 years later, the patient re-presented with further episodes of vaginal bleeding. On internal pelvic examination, a vaginal polyp was visualized and a biopsy showed metastatic papillary thyroid carcinoma. Subsequent CT Thorax Abdomen Pelvis (TAP) showed a vaginal vault lesion, left adnexal mass (4.4cm x 4cm) as well as right paratracheal lymph nodes (the biggest measuring 1.4cm).

Imaging:

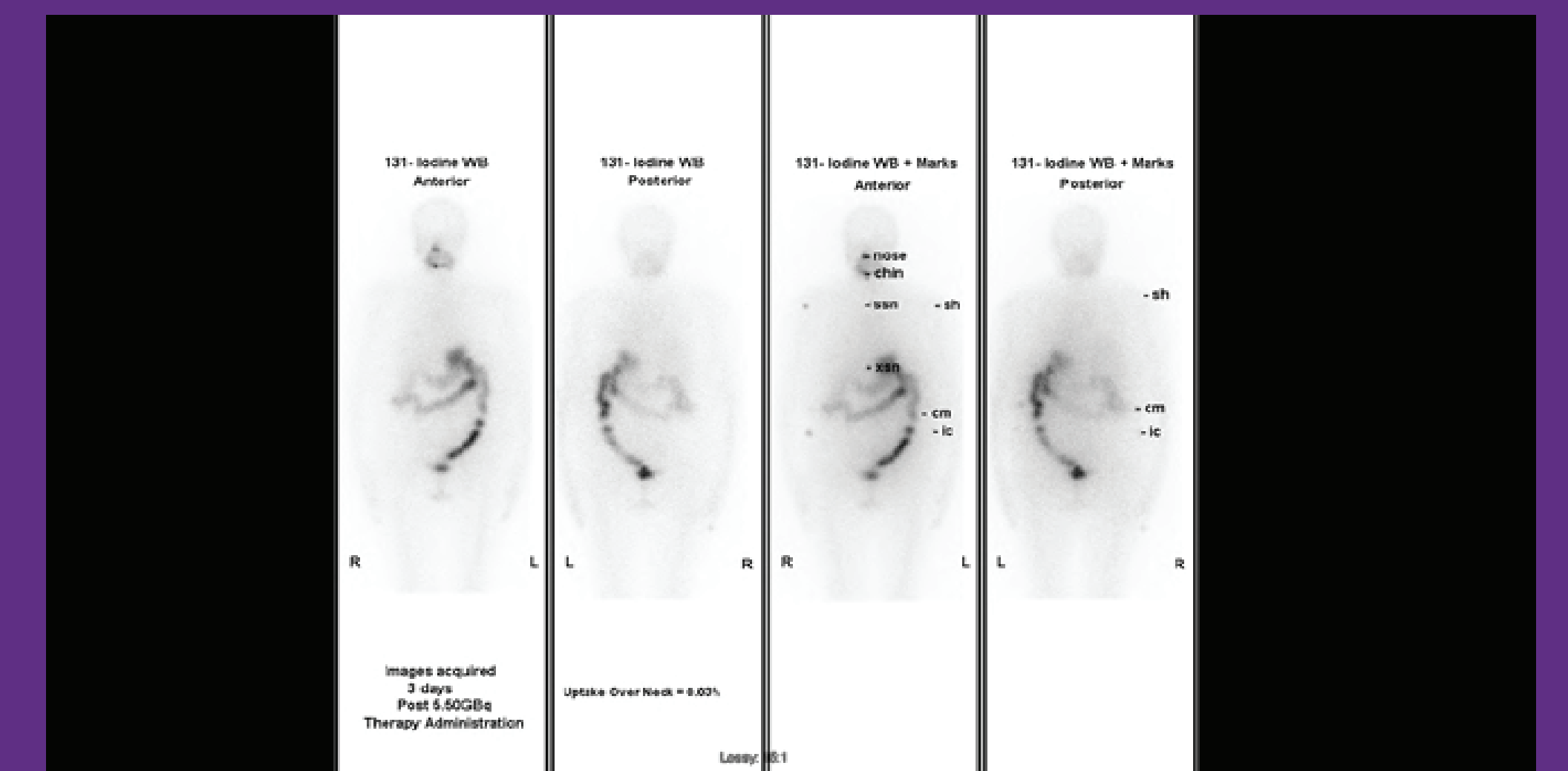
CT Thorax Abdomen Pelvis:



MRI Pelvis:



Post Radioactive Iodine Treatment PET Scan:



Interventions and Outcome:

Given the patient's medical co-morbidities at this point, the patient was deemed unfit for surgery and so the decision was made to have External Beam Radiotherapy (EBRT) followed by RAI treatment. The patient received 50.4Gy in 28 fractions of EBRT followed by 5500 MBq of RAI. The patient tolerated the treatment extremely well. Her post-therapy whole body iodine uptake scan showed no iodine-avid metastases with no residual functioning thyroid tissue. Her post-therapy PET scan showed complete remission of her disease recurrence following the EBRT and RAI.

Follow-up and Conclusions:

Papillary thyroid carcinoma presenting initially with distant pelvic metastases makes this case rare and interesting. However, the complete remission of the disease recurrence with the use of EBRT and RAI makes this case truly remarkable. The patient has returned home and continues to enjoy a very good quality of life.