

## CASE REPORT

# Pseudo-lipomas or a camouflage of metastatic differentiated papillary thyroid cancer: a case report

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### ABSTRACT

**Background:** Papillary thyroid carcinoma is a type of well differentiated cancer showing fair response to iodine ablation therapy. Mainly it spreads into nodes and mediastinum however other areas of metastases include lungs and bone.

**Case presentation:** A 54 year old female presented with soft partially mobile lumps in skull and back, associated with chronic pain. These painless lumps were declared lipomas due to their soft consistency on clinical examination by the local practitioners for last three years. But detailed radiological investigations by tertiary care hospital, followed by FNAC, showed papillary variant of thyroid cancer with metastatic lytic deposits.

**Conclusion:** Clinical examination of all suspicious lumps should be followed by radiological correlation and tissue diagnosis so that patients may avoid future complications.

**Keywords:** Case report, Pappillary Thyroid Cancer, pseudo-lipomas

### Introduction

Papillary thyroid carcinoma (PTC) is the most common form of well-differentiated thyroid cancer, and the most common form of thyroid cancer to result from exposure to radiation. Papillary carcinoma appears as an irregular solid or cystic mass or nodule in a normal thyroid parenchyma. It is well known for its low malignant potential however about 11% present with metastases outside the neck and mediastinum [1,2]. Here we present a case of unusual presentation of PTC where the patient was mistaken as a benign case of lipomas for last three years.

### Case presentation

A 54 year old female patient presented with swelling at the top of skull and mid lower back (Figure 1). Her history revealed the presence of painful swelling for past 3-4years; it had grown to a large size from a small sized hazelnut.

Localized deep seated large soft masses were found during the general physical examination of the patient at skull and dorsal spine with no evidence of neurological deficit. Laboratory values for total blood count, liver function tests, renal function tests and erythrocytes sedimentation rate showed no deviation from normal.

High resolution USG of the mass showed hyperechoic mass containing some hypo dense areas as shown in Figure 2 (A, B). CT scan of the skull showed soft tissue edema near vertex and a radiolucent area as shown in Figure 3.

The patient underwent biopsy and it was confirmed by histopathology to be a metastatic papillary carcinoma. For further evaluation before surgery, magnetic resonance (MR) scan of the skull and spine was ordered (Figure 6) along with bone scan (Figure 5). The image revealed a

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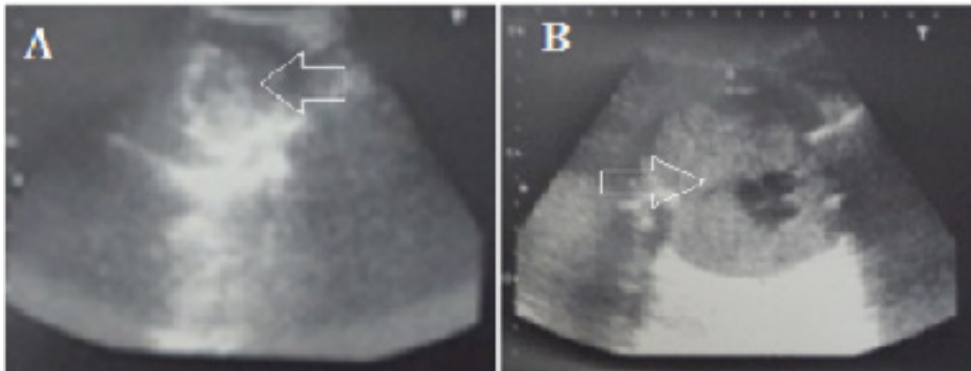
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heterogeneously mixed density predominantly fat containing mass invasive towards the skull base with moderate peripheral edema as shown in Figure 4. Spine images

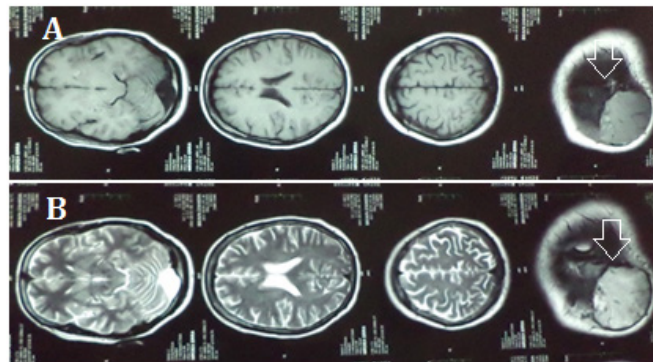
showed invasive soft tissue mass involving multilevel vertebrae eroding body of DV12 to LV-1 as appreciable in Figure 6.



**Figure 1.** Clinical presentation of lumps (Viewer's top = scalp, Viewer's bottom = Mid back).



**Figure 2.** Ultrasonography of skull (viewer's Left) and lumbar mass (viewer's right).



**Figure 3.** Plain (upper slices) and contrast enhanced computerized tomography (CT) scan (lower slices) showing scalp mass eroding the skull.

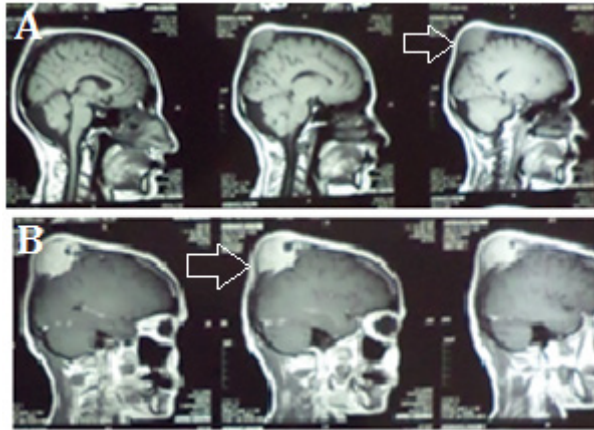


Figure 4. Plain (upper sagittal slices) and contrast enhanced MR scan (lower sagittal slices) showing scalp mass eroding the skull.

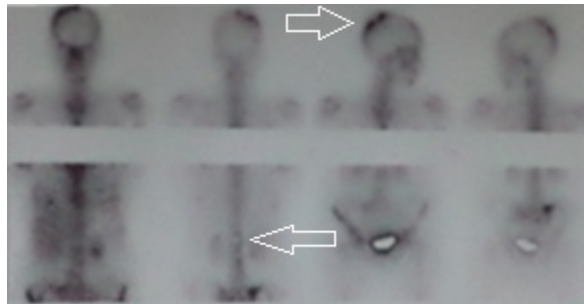


Figure 5. Tc99m MDP planner bone scan showing reactive changes at the site of erosion of skull.

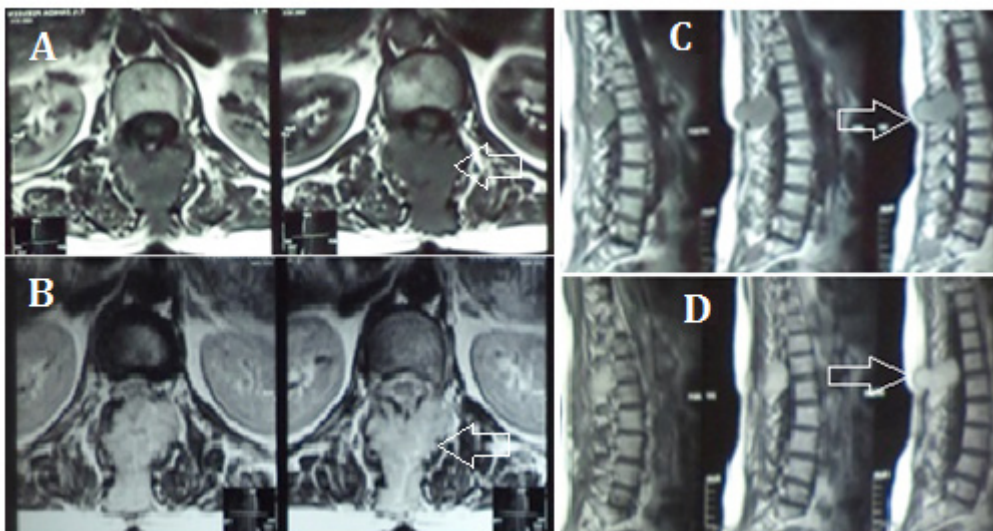


Figure 6. A + C = Plain, B + D = contrast enhanced MR scans showing lumbar mass eroding the DV-12 and LV-1 spinous processes.

## Discussion

PTC is commonly presented as thyroid mass or nodule. Common site of metastases is thyroid neck nodes however there are reports showing metastases in spine

and bone [3,4]. In our case patient presented with soft mobile lump in back and skull for last three to four years. Local general practitioners declared the mass

as lipomas on clinical examination. Patient suffered from mild headache and was referred to our hospital for evaluation. The findings of chest radiograph, abdominal ultrasound and baseline biochemistry were normal. Clinical examination showed suspicious scalp mass and CT/MRI scan demonstrated an improperly defined infiltrating mass (Figures 3, 4). Subsequently biopsy confirmed thyroid papillary carcinoma. Bone scan showed reactive changes at the site of infiltrating lump in the skull along with lytic area involving DV12/LV1 as shown by arrows in Figure 5. Patient was sent to tertiary medical center with metastatic papillary carcinoma for possible surgical management of spine followed by Iodine-131 ablative therapies.

## Conclusion

There are multiple scenarios of presentation of carcinoma thyroid and we anticipated one out of many. Important clinical aspect to learn here is that patient was assured by local general physician at village level that these lumps are soft and are likely lipomas. Patient did not follow any tertiary care center until year 2016 when she felt chronic headache and backache due to invasive carcinoma. It is therefore suggested that all lumps should be correlated with CT/MRI and tissue diagnosis (FNAC/Biopsy) for confirmation until unless proved otherwise.

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## List of Abbreviations

N/A

## Conflicts of interests

Author declares no conflict of interest.

## Funding

No funding received

## Summary of the case

<b>Patient</b>	1	Female, 54
<b>Final Diagnosis</b>	2	Metastatic Papillary Carcinoma
<b>Symptoms</b>	3	Headache, Backache
<b>Medications (Generic)</b>	4	Nil
<b>Clinical Procedure</b>	5	Clinical examination, CT scan, MRI
<b>Specialty</b>	6	Thyroidology, oncology
<b>Objective</b>	7	Pathological diagnosis
<b>Background</b>	8	PTC is commonly presented as thyroid mass or nodule. Common site of metastases is thyroid neck nodes however there are reports showing metastases in spine and bone.
<b>Case Report</b>	9	Author report a case report in which metastatic papillary carcinoma was missed as lipomas
<b>Conclusions</b>	10	Lumps should be confirmed by tissue diagnosis whenever possible
<b>MeSH Keywords</b>	11	Case report, Papillary Thyroid Cancer, pseudo-lipomas

## Ethical approval

N/A

## Consent of the Patient

Consent of the patient was taken for publishing this case report.

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All authors contributed equally.

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