A Tale of Two Cancers- Managing Dual Synchronous Primary Endocrine Malignancies

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Introduction

•Dual primary malignancy is an uncommon and complex challenge. We share our experience of managing two such cases.

Case 1

Onset and presentation

- 29-yr-old female was diagnosed with non-functional left adrenal incidentaloma and advised follow up only.
- 12 months later, she reported to our centre having recently noticed skin changes, nipple retraction in addition to left breast lump of 3 months duration with an inconclusive FNAC
- Family history-non-contributory

Imaging

Bilateral Mammography
- 33x31x40mm
- BIRADS V
- Left breast lesion epi centred
- In supero-medial quadrant
- Involving skin
- Retraction of NAC
- Another 25x40x35mm
- Solid-cystic lesion in
- Infero-medial quadrant
- Left axillary lymphadenopathy

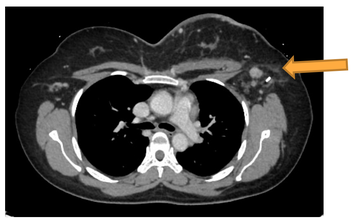

Figure 1 : CECT thorax showing left axillary lymphadenopathy

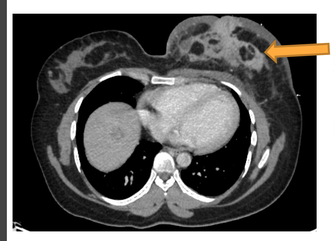

Figure 2 : Skin involvement In breast primary

Adrenal protocol CECT Abdomen & Whole Body PET-CECT including brain

- a 47x44x50mm (APxTRxCC) heterogeneously enhancing solid left adrenal mass with **low relative washout**

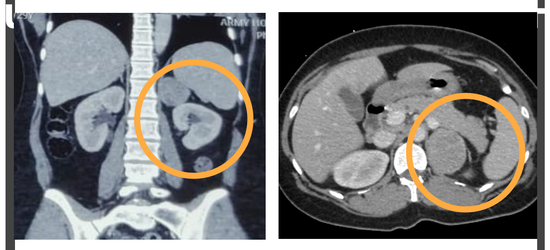

Figure 3 & 4 : CECT abdomen showing left adrenal mass

4 hypodense **liver lesions** (seg IV/VIII) additional to dual primary malignancies

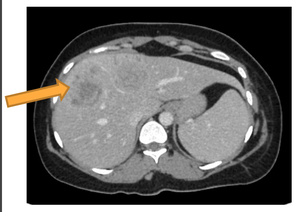

Figure 5 : CECT abdomen showing liver metastases

Biochemical tests for functionality of adrenal tumor were Negative

Guided biopsies

Core needle biopsy of Breast
- Pus only

Culture – AFB seen, positive for **Mycobacterium Abscessus**

Core needle biopsy left axillary lymph node

- **IDC (NST)**
- **grade 3**
- **ER/PR negative, Her2+**
- **Ki 67 30-40%**

FNAC of liver lesion with IHC on cell block –

- **GATA positive,** Suggestive of origin from **breast primary**

Left adrenal mass-

- Suspicion of **adrenocortical carcinoma (ACC)**

MDT discussion & Management

Patient related Factors

- **One of the primaries with visceral metastases**
- **Delayed presentation as she was presumed to have mastitis and treated with multiple courses of antibiotics**
- **Mycobacterium Abscessus infection**
- **Granulomatous Mastitis responded to culture specific antibiotics given in consultation with infectious disease expert**
- **She was given targeted chemotherapy (TCHP regimen) for Advanced Breast primary**
- **Non-functional ACC was completely excised after 6 cycles.**
- **ACC merits genetic evaluation which she refused. She is continuing anti Her 2 neu therapy presently.**

Case 2

Onset and presentation

- **49-year-old asymptomatic female was referred to our centre, on the cusp of third wave of COVID 19 pandemic, with mammographic screening detected right breast lesion and ultrasound detected left adrenal incidentaloma**
- **Family history-non-contributory**

Investigations

Bilateral Mammography
- 11x8mm,
- BIRADS IV
- Right breast lesion in
- Infero-lateral quadrant

- Skin/chest wall uninvolved
- Few centimetric level I right axillary lymph nodes

Adrenal protocol CECT Abdomen
- 16.5x19.9x22mm left adrenal lesion.

DOTANOC
- SSTR expressing lesion in left adrenal gland only

Pituitary and parathyroid screening – normal

Biochemical tests - 24 hr urinary meta-nephrines increased

Core needle biopsy of Breast
- **IDC (NST)**
- **Grade1**
- **ER/PR+ Her2-**
- **Ki 67 10-15%**
- **FNAC Right Axillary LN- Inconclusive**

MDT discussion & Management

Patient related Factors

- **Unwilling for breast conservation and immediate post mastectomy breast reconstruction**
- **Anticipated delay in surgery due to third wave of COVID 19 pandemic**
- **Unwilling for genomic profiling**
- **Acceptance of Chemotherapy understanding limitations of clinical risk profiling**
- **Genetic evaluation was Negative**
- **Neoadjuvant chemotherapy (sequential anthracyclines & taxanes) and alpha blockade was started.**
- **Subsequently she underwent Mastectomy with ALND and left open adrenalectomy simultaneously**

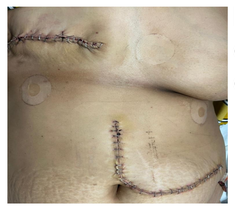

Figure 6 : Post operative outcome

- **Presently on adjuvant endocrine therapy**

Conclusion

Diagnosis and management strategies in dual primaries should be individualized as per-

- **Patient related factors**
- **Organs of origin**
- **Histology/Biology**
- **Genetic evaluation**
- **Synchronicity**
- **Stage**

Bibliography

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