Images in Medicine

Incidental solitary plasmacytoma detected during Covid-19: A challenging clinical presentation!

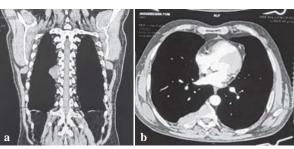


Fig 1. Contrast-enhanced CT thorax showing a soft tissue density mass lesion in the right paravertebral region adjacent to D9 vertebra causing cortical break in the posterior aspect of the 9th rib

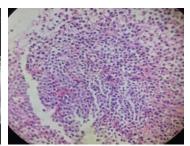


Fig 2. Histopathological examination showing sheets of plasma cells with eccentrically placed nuclei (H&E ×400)

| Serum protein Capillary electrophoresis | Fractions % | | | Conc(g/dl) Ref. Conc(g/dl) | | |
|--|-------------|------|------|--|-------|-----|
| 536 | Albumin | 39.1 | | 3.4 | 3.2 - | 5.6 |
| 200 | Alpha 1 | 3.9 | | 0.3 | 0.1 - | 0.4 |
| EZIP M BAND | Alpha 2 | 9.1 | | 0.8 | 0.4 - | 1.2 |
| 8.200 | Beta 1 | 6.0 | | 0.5 | 0.3 - | 0.7 |
| @ 178 | Beta 2 | 3.6 | | 0.3 | 0.1 - | 0.5 |
| 6150 6150 6110 | Gamma | 38.3 | | 3.4 | 0.5 - | 1.6 |
| 0.00% 0.00% 0.00% | Peaks | % | g/dl | A/G Ratio: 0.64 T.Protein: 8.8 g/dL | | |
| 0.000 20 40 00 00 100 120 No 100 No 200 120 120 240 240 250 250 120 120 120 120 120 120 120 120 120 12 | M BAND | 31.2 | 2.7 | r.Frotein . Grog/dc | | |

Fig 3. Serum protein electrophoresis showing M band

Plasma cell neoplasms are blood dyscrasias characterized by neoplastic proliferation of plasma cells leading to monoclonal gammopathy. Solitary plasmacytoma is characterized by a single lytic lesion of the bone with minimal or no marrow involvement and absence of systemic features. A 71-year-old man presented with complaints of breathlessness, cough and right-sided chest pain radiating posteriorly to anteriorly. The symptoms had started following Covid-19 infection 2 weeks ago. Contrast-enhanced CT of the thorax (CECT) showed a soft tissue mass in the right paravertebral region adjacent to D9 vertebra with a cortical break in the posterior aspect of the 9th rib (Fig. 1). Histology of the paravertebral mass lesion was suggestive of a plasma cell neoplasm (Fig. 2). Immunohistochemistry showed plasma cell lineage (both kappa and lambda) and was positive for CD-138. The patient had dimorphic anaemia and his serum calcium levels and renal functions were normal. Skeletal survey including skull, vertebrae, both shoulder joints, hip joints and bilateral femur showed no other lytic lesions. Serum protein electrophoresis showed an M band 2.7 g/dl (Fig. 3). Urine was negative for Bence-Jones protein. Bone marrow studies showed <10% plasma cells. Hence, a diagnosis of solitary bone plasmacytoma was made. He was started on radiotherapy (45 Gy/25 fractions) over 5 weeks. During imaging for Covid-19, clinicians should be vigilant about the coexistence of unrelated but potentially treatable clinical conditions.

Conflicts of interest. None

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