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PHOTO QUIZ

An elderly lady with a scalp swelling

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CASE REPORT

A 63-year-old female presented with a swelling on the left side of the scalp for the past two months. The swelling was gradually progressing in size and was painless. There was no history of headache, neurological deficits or B symptoms. On examination, there was a 3 x 3 cm bony hard swelling over the left parietal region of scalp. Her vital signs were stable and fundus examination was normal. Neurological examination did not reveal any signs of raised intracranial pressure, cranial nerve palsy or any focal neurological deficit. Her initial haematology and serum chemistry values were normal except for an elevated erythrocyte sedimentation rate of 135 mm/hour.

Magnetic resonance imaging of brain showed a well-defined, extra axial, soft tissue mass in the left parietal region, iso-intense on T1W (*figure 1*) and heterogeneously hyper-intense on T2W (*figure 2*).

WHAT IS YOUR DIAGNOSIS?

See page 378 for the answer to this photo quiz.

Figure 1. *T1W MRI of the brain showing a well-defined, extra axial, iso-intense lesion adjacent to the right parietal cortex*

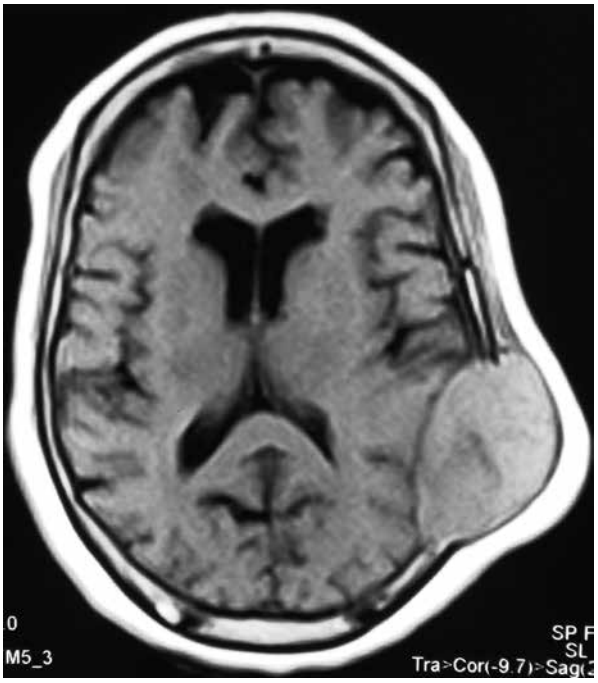
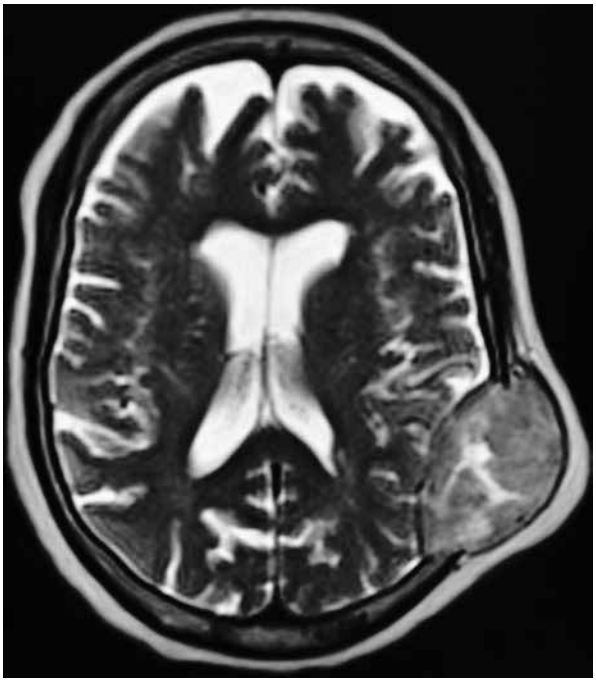


Figure 2. *The same lesion is heterogeneously hyper-intense on T2W MRI*



ANSWER TO PHOTO QUIZ (PAGE 374)

AN ELDERLY LADY WITH A SCALP SWELLING

DIAGNOSIS

A biopsy from the lesion was performed, which showed sheets of plasmacytoid cells (*figure 3*), strongly expressing CD138 and Lambda light chain restriction (*figures 4 and 5*) and was negative for CD56 and cytokeratin, consistent with the diagnosis of Plasmacytoma. No other bony lytic lesions were detected on skeletal survey. However, serum protein electrophoresis showed monoclonal gammopathy with a serum M protein concentration of 3.54 g/dl. Her immunoglobulin assay was abnormal with an IgG fraction of 5455 mg/dl, IgA < 40 mg/dl, IgM < 25 mg/dl, free kappa measuring 11.5 mg/dl and an elevated free lambda light chain value of 75.1 mg/dl. Serum albumin was 3.7 g/dl, beta 2 microglobulin was 4.5 mg/ml and her bone marrow aspirate showed 42% plasma cells, all findings consistent with multiple myeloma ISS stage II.[1]

Figure 3. *Photomicrograph showing sheets of plasmacytoid cells (H&E x 200)*

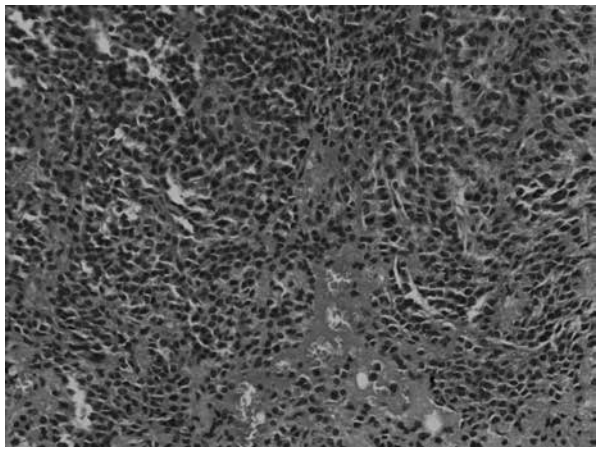


Figure 4. *Tumour cells show positivity for CD138 (IHC x 400)*

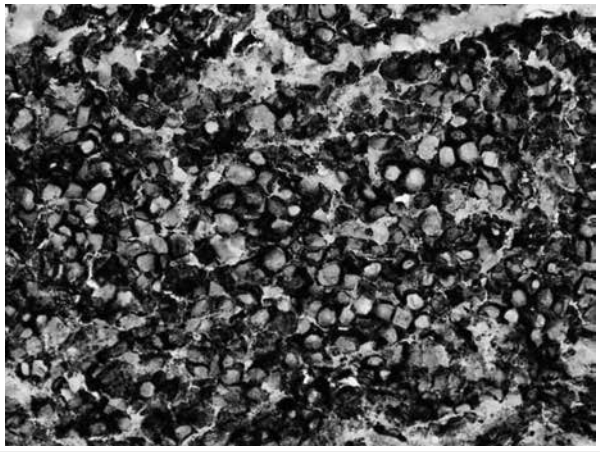
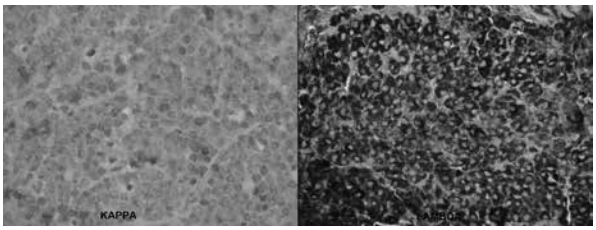


Figure 5. *Tumour cells showing Lambda light chain restriction (IHC x 400)*



Cranial plasmacytomas are rare lesions that can arise from the calvarium, dura or skull base and could be the harbinger of a more widespread systemic myeloma. Very rarely, it has been described as the sole presenting feature of underlying multiple myeloma. On imaging, these lesions can be confused with meningioma, cranial secondaries or lymphoma. Zigouris *et al*. described a case of an elderly male with cranial plasmacytoma, who presented with progressive right hemiparesis.[2] Similarly, Terada reported his experience with a patient who presented with gait disturbance. His cranial imaging revealed a plasmacytoma of the clivus of the skull compressing on the brain parenchyma.[3] There have been case reports where cranial plasmacytoma presented as isolated sixth nerve palsy.[4] Our patient also presented with the sole manifestation of an otherwise innocuous scalp swelling, which on systematic evaluation unearthed advanced multiple myeloma.

REFERENCES

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