AB161. 143. A pictorial review of the magnetic resonance (MR) imaging features of melanoma

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Background: Melanoma can be classified as cutaneous, mucosal or uveal. Its incidence is rising internationally, although mucosal and uveal melanoma both remain rare. Melanin causes melanoma to appear hyperintense on T1-weighted images. There is restricted diffusion on diffusion weighted imaging (DWI). Lesions enhance with gadolinium contrast. This exhibit aims to display a systems-based review of the magnetic resonance imaging (MRI) appearances of melanoma.

Methods: We used the skin cancer database in the MMUH and the patient imaging centre to inform our results. We retrospectively reviewed our skin cancer database, active since 2014, to identify all melanoma patients treated at our hospital. We identified which patients underwent an MRI from the patient information system.

Results: We outline here the MR imaging features affecting the following systems: Neurological: (I) left occipital lobe metastatic deposits; (II) right superior cerebellar metastatic deposits; (III) bilateral cerebral metastases; (IV) hemorrhagic bilateral cerebral metastases; (V) leptomeningeal metastases to lower cervical, upper thoracic, lower thoracic spinal cord and conus; Musculoskeletal: (I) metastatic deposits to left erector spinae muscle; (II) metastatic deposits to left occipital bone, the left neck of mandible, multiple vertebral bodies; (III) pathological fractures of cervical vertebra with compressive effect on the left vertebral artery; gastrointestinal (GI): (I) primary rectal melanoma; (II) small bowel metastases arising from a cutaneous primary; genitourinary (GU): primary recurrent valval melanoma; endocrine: metastatic deposits in left adrenal gland from cutaneous primary.

Conclusions: Radiologists should be familiar with the appearances of melanoma on MRI, given its incidence is increasing and the condition can behave aggressively.

Keywords: Melanoma, diffusion weighted imaging, radiologists

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