

Case description A 73-year-old man with CML and JAK2 positive myeloproliferative neoplasm was treated with imatinib and pegylated interferon. In 2020 he developed an acute neuropathy affecting the left leg. MRI showed abnormal signal and enhancement in the sciatic trunk and related nerves. There was no improvement following withdrawal of interferon but rapid improvement following methylprednisolone. A mild distal mixed axonal neuropathy was present at that time. In October 2022 he developed an acute common peroneal neuropathy in the other leg and nerve conduction studies showed marked worsening of the generalised axonal neuropathy. As no other cause was found imatinib was ceased. Marked symptomatic improvement occurred within 6 weeks.

Discussion This is the first report of a relapsing steroid responsive neuroplexopathy associated with TKI therapy. It suggests that TKIs may rarely be associated with an inflammatory neuropathy, as well as with a generalised mixed axonal neuropathy. As TKIs are widely used in haematological and other malignancies, awareness of this treatable complication is important.

REFERENCES

1. Chakrapurakal G, Etti RJO, Murray JA. *J Clin Pathol* 2011;**64**:456. doi:10.1136/jcp.2010.085936 (letter)
2. Kavanagh S, Brill V, Lipton JH. *Blood Res*. 2018 Jun;**53**(2):172–174

2685

DEVELOPMENT OF THE MSBASE IMAGING REPOSITORY (MSBIR)

^{1,2}Heidi N Beadnall*, ³Chun-Chien Shieh, ^{2,3}Chenyu Wang, ²Ryan Sullivan, ⁴Daniel Marcus, ⁵Rein More, ⁶Niels Bergsland, ^{5,7,8}Helmut Butzkueven, ^{5,7,8}Anneke Van der Walt, ^{9,10}Tomas Kalincik, ^{1,2,3}Michael H Barnett. ¹Neurology Department, The Royal Prince Alfred Hospital, Newtown, NSW, Australia; ²The Brain and Mind Centre, The University of Sydney, Camperdown, NSW, Australia; ³Sydney Neuroimaging Analysis Centre, Camperdown, NSW, Australia; ⁴Radiologics, Saint Louis, Missouri, USA; ⁵MSBase, Melbourne, VIC, Australia; ⁶Buffalo Neuroimaging Analysis Center and State University of New York, Buffalo, New York, USA; ⁷Monash University, Melbourne, VIC, Australia; ⁸The Alfred Hospital, Melbourne, VIC, Australia; ⁹University of Melbourne, Melbourne, VIC, Australia; ¹⁰Royal Melbourne Hospital, Melbourne, VIC, Australia

10.1136/bmjno-2023-ANZAN.92

Objectives To create and integrate a dedicated MSBase Imaging Repository (MSBIR) with the MSBase registry. To recruit MSBase sites to contribute to MSBIR. To facilitate quantitative analysis of brain MRI scans uploaded to MSBIR using an automated AI-based software platform and transmit these metrics into MSBase.

Methods Following stake-holder consultation, technical work commenced on the MSBIR build by Radiologics (Extensible Neuroimaging Archive Toolkit [XNAT] experts), Sydney Neuroimaging Analysis Centre (SNAC) & University of Sydney (USYD). Multiple sites were contacted regarding contribution to MSBIR. Automated, AI-based imaging pipelines measuring cross-sectional and longitudinal brain lesion and volume metrics from compatible clinically-acquired multiple sclerosis (MS) MRI scans were developed and refined by SNAC.

Results The customised MSBIR-XNAT production release was deployed on USYD hosted Amazon Web Services servers. SNAC developed products support the platform: (i)TORANA™, medical image gateway service that de-identifies

images over secure/encrypted protocols, (ii)COEUS™, advanced-search web portal, allows data retrieval for MSBase projects. Currently 7 sites have contributed 16235 MRI scans to MSBIR. Fully-automated quantitative analysis pipelines have been developed and implemented. Quantitative MRI brain lesion and volume metrics are available for compatible scans. All metrics are: (i)Stored in MSBIR/MSBase (de-identified data), (ii)Displayed in corresponding MSBase patient records.

Conclusions MSBIR-XNAT has been deployed and integrated with MSBase. Imaging data ingestion and further site/subject recruitment is ongoing. Compatible MRI brain scans entering MSBIR are automatically analysed by imaging pipelines and quantitative data stored in MSBIR and displayed in MSBase patient records. Clinical-imaging MS research collaborations utilising MSBIR are underway.

demonstrates a rare case of intramedullary spinal cord metastasis from melanoma with an acute thoracic cord syndrome.

2689

HYPERTROPHIC PACHYMEINGITIS IN SETTING OF RELAPSING POLYCHONDRITIS – A MANAGEMENT ISSUE

Lakshini Gunasekera*, Michael Ginevra, Rohit Sharma, Abhishek Malhotra. *Barwon Health, Geelong, VIC, Australia*

10.1136/bmjno-2023-ANZAN.93

Introduction We present a patient with an aggressive, relapsing course of hypertrophic pachymeningitis on a background of relapsing polychondritis. He is currently stable on high dose corticosteroids and cyclophosphamide This case adds to literature about this uncommon co-occurrence of hypertrophic pachymeningitis in patients with relapsing polychondritis and its management difficulty.

Case report A 53-year-old-male presented to us with left upper limb weakness, headaches and confusion. This was on a background of relapsing polychondritis, obesity, obstructive sleep apnoea and type 2 diabetes mellitus. For his relapsing polychondritis, he had tried multiple immunosuppressants in the past, and was on prednisolone at the time of our initial review. On examination he had bilateral papilloedema. MRI brain showed hypertrophic pachymeningitis. Serial lumbar punctures showed markedly elevated opening pressures, protein levels and aseptic pleocytosis. Extensive work up of bloods, CSF analysis, imaging and pachymeningeal biopsy excluded secondary causes such as malignancy, IgG4 disease, ANCA-associated vasculitis, VEXAS syndrome and infection. Clinical exacerbations have responded to high-dose corticosteroids but continued to occur whilst on tocilizumab and adalimumab. He is currently stable on a combination of oral prednisolone and cyclophosphamide.

Conclusion Non-IgG4 and non-ANCA-associated idiopathic hypertrophic pachymeningitis can be difficult to diagnose and manage. Relapsing polychondritis has been associated with aseptic meningitis, often with markedly elevated CSF protein, as in our case. Hypertrophic pachymeningitis is rarely described with relapsing polychondritis and can be challenging to manage needing aggressive immunomodulatory therapy.