Glomeruli. No immune deposits were detected. She was diagnosed with GPA on the basis of the above conditions.

**Results**—Thereafter, her renal function improved with BVAS 12. The titer of PR3-ANCA lowered gradually till undetected.

**Supplementary data associated with this article can be found on the website of La Presse Médicale (http://www.em-consulte.com/revue/lpm).**

http://dx.doi.org/10.1016/j.lpm.2013.02.134

**P64**

**Characterization of F-18 fluorodeoxyglucose PET/CT in granulomatosis with polyangiitis**

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**Introduction**—Granulomatosis with polyangiitis (GPA) is a rare autoimmune disease that is characterized by granulomatous inflammation and small vessel vasculitis that primarily involves the upper airways, lungs, and the kidneys. Early and accurate diagnosis and assessment of the extent of the disease is important for treatment decisions. F-18 fluorodeoxyglucose (FDG) positron emission tomography (PET) is an imaging technique that is increasingly being used in evaluation and management of other types of vasculitis (giant-cell arteritis). The role and characterization of FDG-PET/CT has not been reported for GPA.

**Patients**—We identified 10 patients with GPA who underwent FDG-PET/CT scanning over a 7-year period from January 2005 to December 2012. In all 10 patients the FDG-PET/CT was performed for suspected or known malignancy. The presenting clinico-radiologic features including FDG-PET/CT scan and chest CT scan findings were analyzed.

**Results**—Differentiation between inflammatory and malignant lesions was not able to be determined based on FDG-PET/CT imaging. Max SUV was compared in patients who had malignant lesions and those with inflammatory lesions secondary to GPA and no significant difference was noted. GPA lesions of the respiratory tract and lung were more clearly detected on FDG-PET/CT than CT alone. In four of 10 patients new areas of involvement of GPA were noted. Eight of 10 patients had uptake noted in the lung, and 4 out of 10 had uptake in the sinuses. Three patients had FDG uptake noted within vessels that was not previously appreciated. In seven out of 10 patients the PET/CT guided the location of the biopsy and led to diagnosis. Two patients had follow up FDG-PET/CT, which demonstrated decreased FDG uptake after treatment.

**Conclusion**—FDG-PET/CT cannot differentiate between malignant and inflammatory lesions in patients with GPA. However, it is a feasible modality to evaluate GPA lesion activity, identify new areas of involvement and help to guide biopsy location.

**Further readings**

http://dx.doi.org/10.1016/j.lpm.2013.02.135

**P65**

**Presentation and management of granulomatosis with polyangiitis (Wegener’s) (GPA) central nervous system (CNS) involvement**

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**Introduction**—GPA, a small-sized–vessel vasculitis, commonly involves ear, nose & throat (ENT), lungs and kidneys, and rarely, the CNS. The presentation, management and outcome of GPA CNS involvement were evaluated.

**Patients**—We retrospectively reviewed the charts of 16 patients (12 men) with: GPA satisfying ACR and/or Chapel Hill criteria; and, after excluding other causes, GPA CNS involvement manifesting as pachymeningitis, meningitis, stroke, spinal cord involvement or hypophysal involvement.

**Results**—Mean respective ages at GPA diagnosis and onset of CNS involvement were 43 and 47 years. The latter was present in nine (56%) patients at GPA diagnosis, and appeared in the seven others after a median follow-up of 24 months. Headache was the main symptom (67%), with motor and sensory impairments noted in 33 and 27%, respectively. CNS involvements were: pachymeningitis (n = 8; seven cranial and one spinal cord), ischemic (n = 4) or hemorrhagic stroke (n = 2), cerebral vasculitis (n = 2), and/or hypophysal involvement (n = 2). Extra-CNS manifestations included ENT (75%), lungs (60%), peripheral nerve(s) (40%) and kidneys (33%). ANCA detected in 12/16 (75%) patients had PR3 (n = 7) or MPO (n = 5) specificity.

Induction therapy comprised corticosteroids (CS, 100%) and IV (69%) or oral cyclophosphamide (CYC, 25%) or rituximab (6%). Maintenance therapy consisted of CS (100%) and azathioprine (63%), or methotrexate or rituximab (13% each).

CNS involvement responded clinically in 12/16 (75%). Relapsing and/or refractory CNS GPA in seven patients was treated with IV CYC or rituximab (43% each) or oral CYC (14%). No patient died during follow-up, but 64% had persistent neurological sequelae.

**Conclusion**—Our series highlights the heterogeneity of CNS involvement in GPA. Despite initial severe disease, conventional therapy obtained clinical improvement in 75% of the patients. Rituximab should be evaluated for refractory and/or relapsing CNS GPA.

http://dx.doi.org/10.1016/j.lpm.2013.02.136

**P66**

**Pituitary dysfunction in granulomatosis with polyangiitis**

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**Introduction**—Pituitary gland involvement has been rarely reported in granulomatosis with polyangiitis (GPA).

**Patients**—Retrospective case-series describing clinical features, pituitary imaging, hormonal evaluation, and treatment of all patients with pituitary involvement by GPA evaluated at Mayo Clinic, between 01/1996 and 12/2011.

**Results**—Pituitary involvement was noted in nine patients (five women). Median age at diagnosis of both GPA and pituitary involvement was 48 (range 28–68). All patients were c-ANCA/PR3 positive. Pituitary involvement frequently represented an incidental imaging finding during the evaluation of headache or sinusitis (six patients). Three