

A 16-Year-Old Girl With Bilateral Visual Loss and Left Hemiparesis Following an Immunization Against Human Papilloma Virus

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We report the course of a 16-year-old girl who presented with near complete visual loss associated with chiasmal neuritis and a biopsy proven tumefactive demyelinating lesion on magnetic resonance imaging (MRI) in

association with a recent immunization against human papilloma virus.

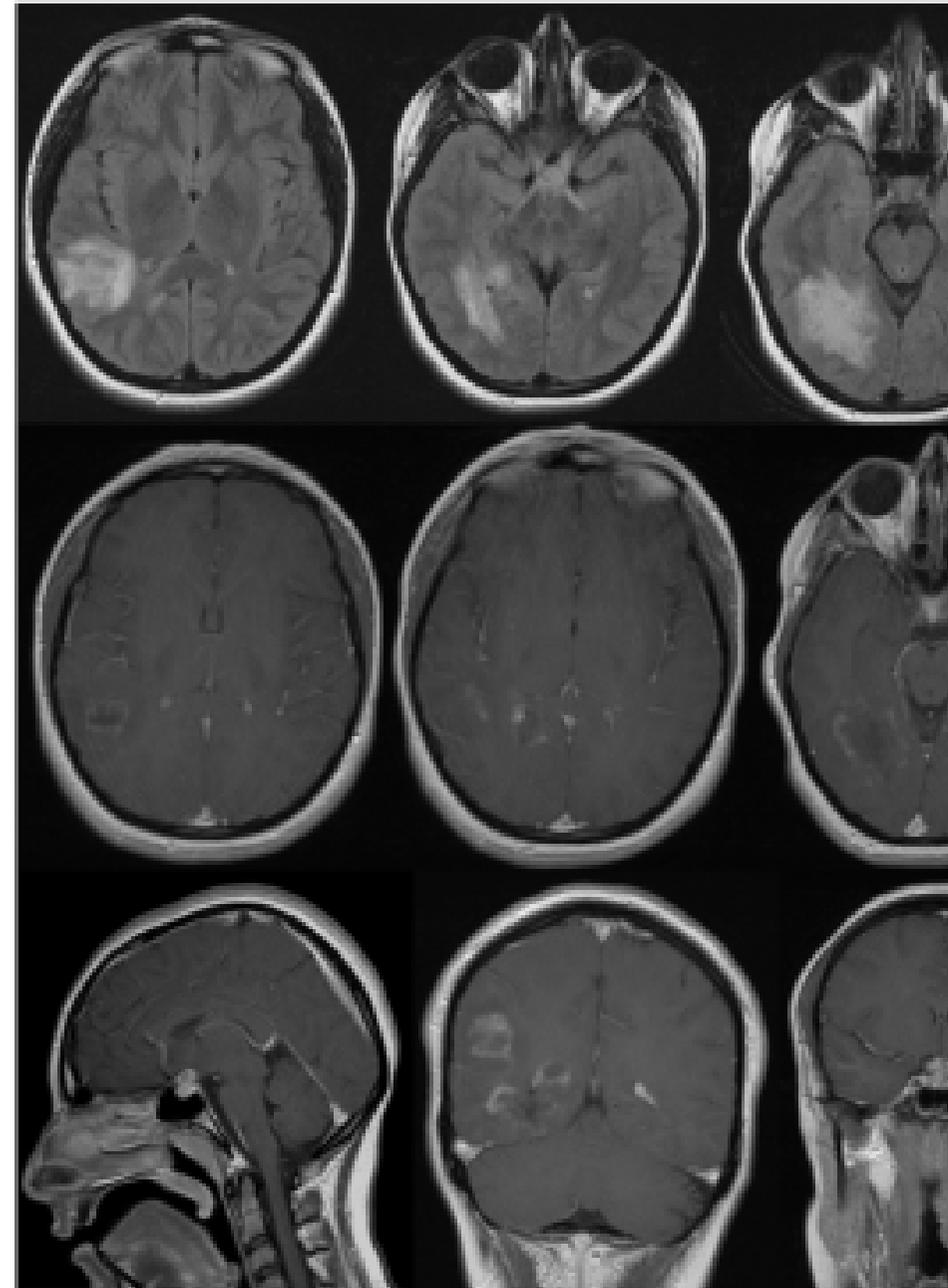
Keywords: demyelination; tumefactive; blindness; chiasm; HPV

magnetic resonance imaging on admission.

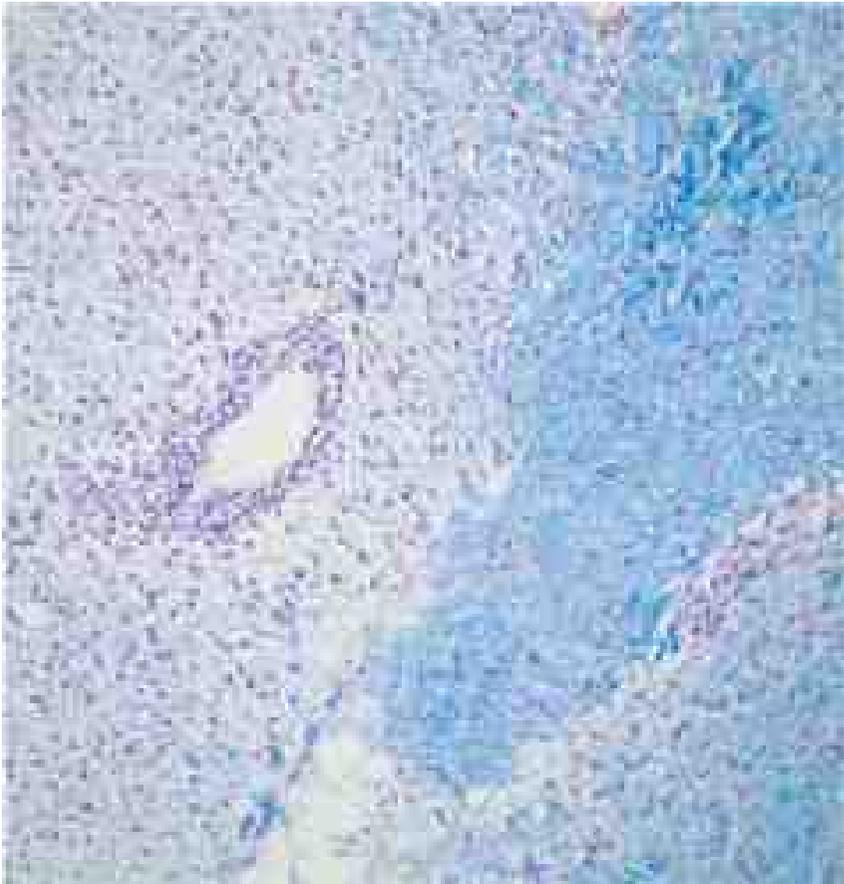
Top: Fluid-attenuated inversion recovery sequences show right occipitoparietal and chiasmal increased signal.

Middle: Axial T1 with contrast shows ring enhancement of the right occipitoparietal lesion.

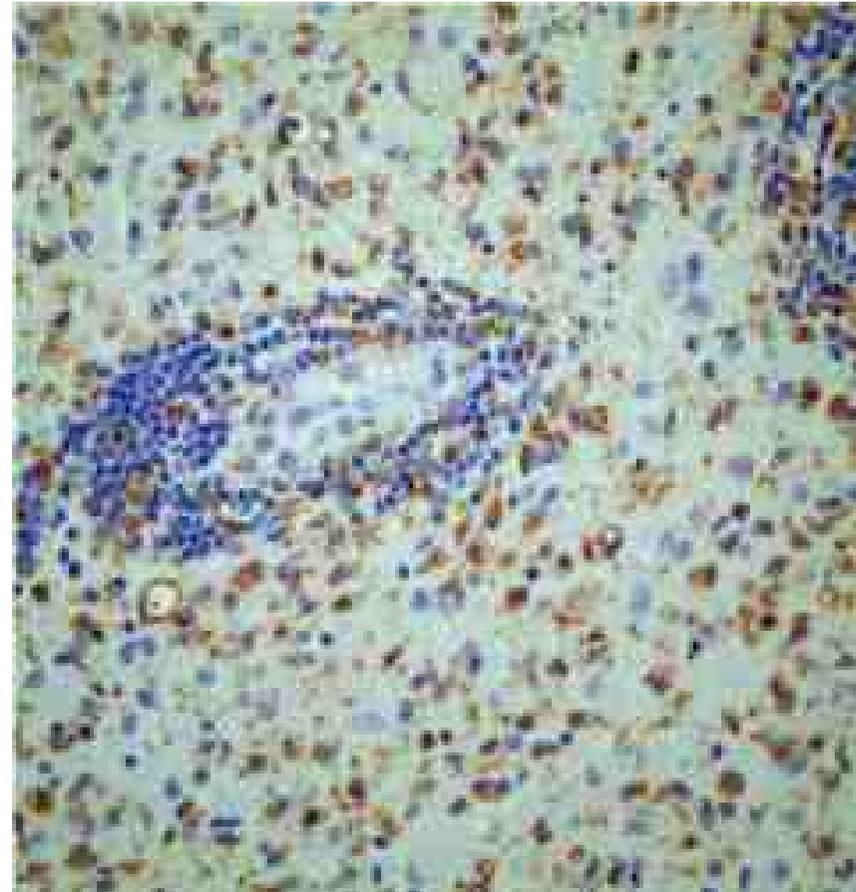
Bottom: T1 with contrast; on the left a sagittal view shows chiasmal enhancement, on the center and right coronal views show right hemispheric and chiasmal enhancement respectively



- **Biopsy** of the hemispheric mass was performed and histology revealed demyelination.



Photomicrograph at low power demonstrating demyelination on left half of field with a vessel cuffed with lymphocytes. Right hand side of the field shows white matter with intact myelin (stained blue) but infiltrated with macrophages. Stained with Holmes Luxol fast blue, 200 magnification.

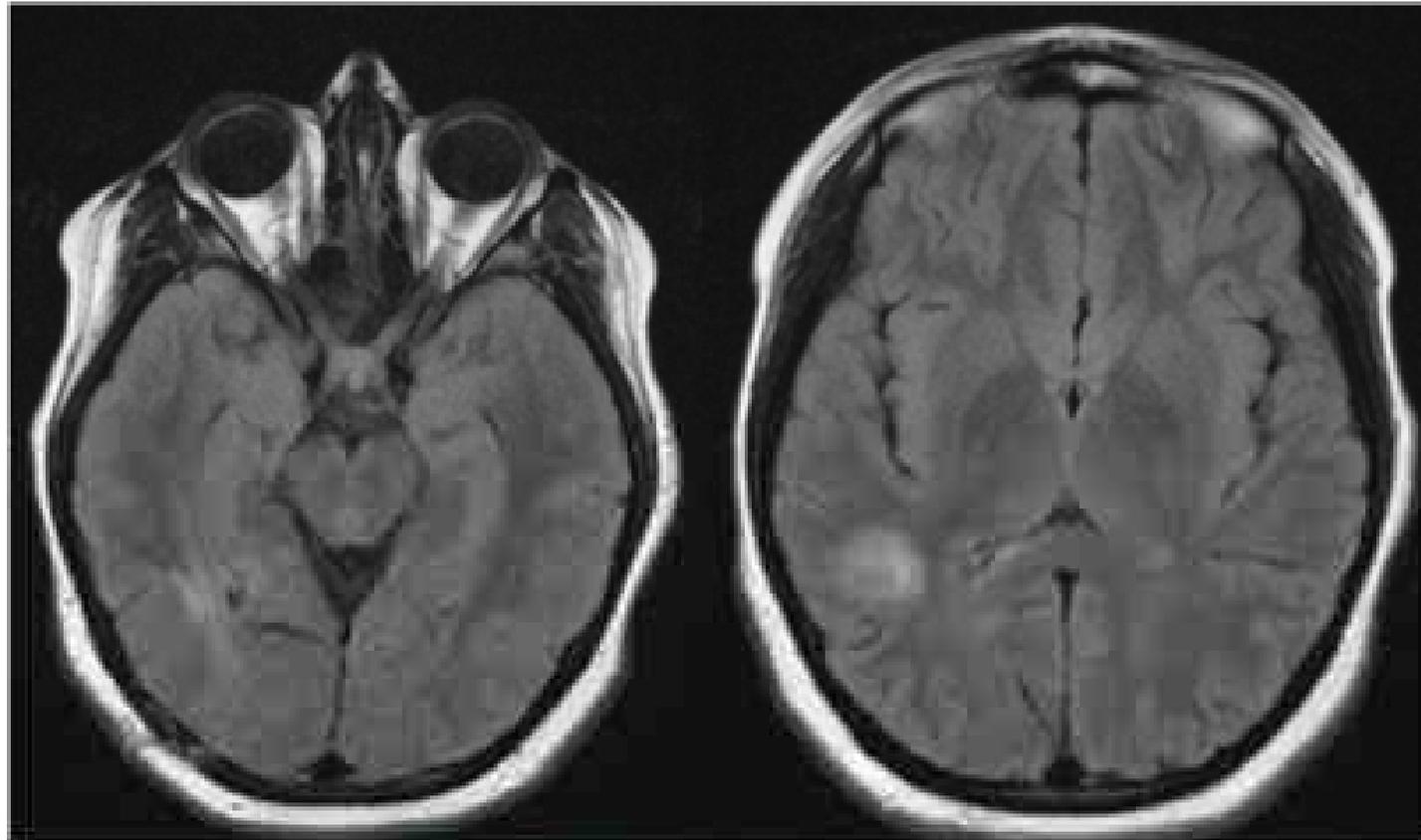


Photomicrograph at high power demonstrating a vessel cuffed with lymphocytes within a field of demyelination and infiltrated with macrophages. Stained with immunoperoxidase PGM1 for macrophages (brown), 400 magnification.

- **Three months after the onset**, the patient still had not regained any visual function, her weakness and sensory deficit recovered completely however.
- A repeat MRI of the brain revealed resolution of the hemispheric and chiasmal lesions.

Magnetic resonance imaging 3 months after initial admission.

Fluid-attenuated inversion recovery sequence with lessening of the high signal intensity compared with admission scans



At 18 months after the onset of her symptoms, her examination remained stable with no further neurological complaints, persistent profound visual impairment, inconsistently identifying light and movement from the left eye only.

An MRI of the brain was performed and was unchanged compared with the previous one done at 6 months.

Magnetic resonance
imaging 18 months after
admission.

MR: near total resolution of the
high signal intensity in the right
hemispheric lesion

