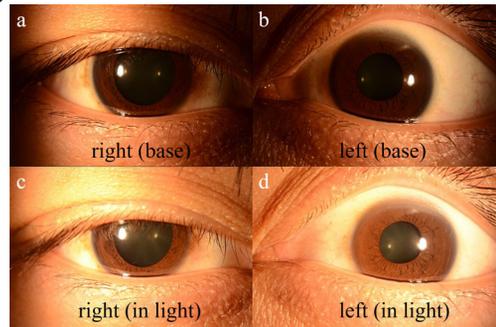


Argyll Robertson pupil in an immunocompetent 31-year-old man

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Introduction: In the post-antibiotic era, neurosyphilis have become an uncommon manifestation of *Treponema pallidum* infection. Neurosyphilis is most frequently presented in patients with human immunodeficiency virus (HIV) infection. Argyll Robertson (AR) pupil, a tertiary form of neurosyphilis, is characterized by lack of light reflex and preserved constriction of pupil to accommodation. We here report a case of AR pupil developed in an immunocompetent young man. **Case:** A 31-year-old man was hospitalized due to headache and progressive visual disturbance that started 1 month ago. He experienced a painless penile ulcer 5 years ago, but the lesion was spontaneously disappeared without treatment. From ophthalmologic examination, right pupil of the patient presented light-near dissociation: the pupil was nonreactive to light but briskly constricted with accommodation (Figure 1). His neurologic examination results were otherwise normal. His serum was reactive for Venereal Disease Research Laboratory (VDRL) test at 1:8 and the result of HIV antigen and antibody test was negative. Cerebrospinal fluid (CSF) analysis showed lymphocyte-dominant pleocytosis with 81 white blood cells (100% lymphocytes) and revealed a reactive CSF-VDRL. In magnetic resonance image of the patient, there was no abnormal lesion in brain parenchyma. Putting these together, he was diagnosed with AR pupil caused by neurosyphilis. This patient received treatment with intravenous penicillin G potassium for 14 days. Three months later, initial visual disturbance was completely resolved. The follow-up serum VDRL level fell appropriately, and the result of follow-up CSF-VDRL testing was converted to nonreactive. **Discussion:** AR pupil is a rare, but important form of neurosyphilis. High index of suspicion is a key of early diagnosis of AR pupil. And early treatment is crucial for better outcome. However, penicillin G potassium is not currently available in most of hospitals in South Korea, because the production of penicillin G potassium have been halted since September 2017. The efforts to resolve the antibiotics shortage of penicillin G potassium are urgently needed.



Two cases of HIV patients Immune Reconstitution Inflammatory Syndrome treated with thalidomide

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In immunocompromised patients such as HIV patients, the Immune Reconstitution Inflammatory Syndrome (IRIS) is a critical disease that may be fatal. It is known to be caused by the restoration of macrophage competence after anti-retroviral treatment (ART) or antibiotic initiation which may result in violent immune reaction with a cytokine storm. Steroid is most commonly used, there are several reports of thalidomide to control the IRIS. Here, we report two cases of IRIS in HIV patients treated with thalidomide. Case 1 A 46-year-old man diagnosed as HIV, hospitalized with the right side weakness. Cryptococcal meningoencephalitis was confirmed by cerebro-spinal fluid analysis and magnetic resonance image (MRI). After 4 weeks of liposomal amphotericin B as induction, fluconazole therapy for consolidation was continued. ART was initiated after induction therapy. 5 months after, meningitis was aggravated. Suspecting recurrence of cryptococcal meningoencephalitis and IRIS, induction therapy was restarted and steroid was given. However, meningitis recurred again. Suspecting uncontrolled IRIS, thalidomide was used for 6 months. Meningitis did not recur since using thalidomide and improved. Case 2 A 29-year-old man hospitalized with right arm weakness. Brain MRI demonstrated T2 hyperintense lesion suggesting demyelination (Fig 1). He was infected with HIV, and the brain lesion showed the finding of Progressive Multifocal Leuko-encephalopathy (PML). 1 month after initiating ART, PML worsened even though CD4 T lymphocyte count increased. Brain MRI showed increased extent of that lesion (Fig 2). Suspecting IRIS, steroid pulse therapy was prescribed and after that thalidomide was used for 5 months. After motor weakness and dysarthria improved, the patient was discharged. **Discussion** In our cases, we present IRIS in HIV patients who had neurologic complications with cryptococcosis and PML. Both patients were treated with steroid and continued with thalidomide. Thalidomide is a known promising drug to control the patient's immune reaction with cytokine storm. For immune-suppressed HIV patients, thalidomide treatment should be considered for treatment and prevention of IRIS.

