

# PERIPHERAL FACIAL PARALYSIS AS A MANIFESTATION OF HIV INFECTION: A REPORT OF THREE CASES

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## ABSTRACT

Three cases of infranuclear facial nerve palsy associated with infection by the human immunodeficiency virus type 1 are reported. All were previously asymptomatic and had no other symptom suggestive of HIV infection. Two patients had typical Bell's palsy while one had a facial diplegia. CD4 cell counts were above 100 cells/mm<sup>3</sup> in all cases. A review of the literature confirmed that peripheral facial nerve palsy could occur at any stage of HIV infection and in various clinical contexts. It is suggested that adult patients presenting with peripheral facial paralysis should be counseled, and screened for HIV Infection.

Key words: Peripheral facial paralysis, HIV

## INTRODUCTION

At the end of 2000, the WHO estimated that 36.1 million people have been infected with the human immunodeficiency viruses. 70% of these are in Sub-Saharan Africa.<sup>1</sup>

The commonest manifestation in the HIV infected African is HIV-Wasting Syndrome (Slim Disease).<sup>2</sup>

Neurological manifestations can occur at any stage of HIV Infection and may, like herpes zoster, be the first manifestation of HIV infection.<sup>3</sup>

Idiopathic facial paralysis is a rare manifestation of HIV Infection that is often missed.<sup>4,5</sup> This is a report of three cases seen at our center between January and September 2001.

### Case 1

A forty-five year male old civil servant He was referred to us with a two-week

history of sudden onset deviation of the face to the right with inability to close the right eye. He had a mild earache a few days prior to the onset of symptoms. He had no past medical history of note. He is married with a wife, but admitted a history of multiple sexual partners.

Physical examination showed right infranuclear facial nerve palsy with Bell's phenomenon. There were no other neurological deficits. Systemic examination was unremarkable. A diagnosis of Bell's palsy was made. A week's course of Prednisolone 40mg daily was prescribed. Laboratory Evaluation showed a normal full blood count and serum biochemistry. He however tested positive to HIV-1 antibodies. His CD4 Positive Lymphocyte Count was 265 cells/mm<sup>3</sup>. He was counselled and started on Highly Active Antiretroviral Therapy

(Amprenavir/Zidovudine/Lamivudine). He recovered fully within three weeks and remains on antiretroviral therapy.

### Case 2

A thirty-eight year old female community health worker. She was referred to us with a week's history of sudden onset deviation of the face to the right with inability to close the right eye. She had no past medical history of note. She was unmarried but had a regular sexual partner who is married. Before this, she had had two other partners.

Physical examination showed right infranuclear facial nerve palsy with Bell's phenomenon. There were no other neurological deficits. Systemic examination was unremarkable. A diagnosis of Bell's palsy was made. A week's course of prednisolone 40mg daily was prescribed. Laboratory evaluation showed a normal full blood count and serum biochemistry. She however tested positive to HIV-1 antibodies. Her CD4 Positive Lymphocyte Count was 204cells/mm<sup>3</sup>. She was counselled and started on Highly Active Antiretroviral Therapy (Amprenavir/Zidovudine/Lamivudine). She recovered fully within a month and was lost to follow up after six months of anti-retroviral therapy.

### Case 3

A twenty-three year old female student was referred to us with a week's history of inability to close both eyes and impaired speech. She has had frequent vaginal discharge and was on therapy for acute salpingo-oophoritis prior to the onset of symptoms. She was unmarried but had a regular sexual partner who is a married pilot. Before this, she had had one other partner.

Physical examination showed bilateral infranuclear facial nerve palsy with Bell's phenomenon (Figure 1). There were no other neurological

deficits. Systemic examination was unremarkable. A diagnosis of Facial diplegia probably secondary to Bilateral Bell's Palsy was made. Cephalic Guillian-Barre Syndrome was a strong differential diagnosis. She declined to consent to a Lumbar puncture and was commenced on Prednisolone 40mg daily. Laboratory Evaluation showed a normal full blood count and serum biochemistry. He however tested positive to HIV-1 antibodies. His CD4 Positive Lymphocyte Count was 265 cells/mm<sup>3</sup>. She was appropriately counseled but could not afford antiretroviral therapy. She recovered fully within a month and is presently on multivitamins.

**Figure 1: Right facial nerve palsy in patient 3**



### DISCUSSION

Bell's palsy is the most common form of facial paralysis. Its aetiopatho-genesis remains unknown. Its association with HIV infection was first described in 1985.<sup>3</sup> Several cases have been reported from Central Africa.<sup>4</sup> In most cases, like in this presentation,

the facial paralysis occurred in patients who were previously asymptomatic, and was indeed the first manifestation of HIV Infection.

In the late stages of HIV Infection peripheral facial paralysis due to other causes such as meningeal lymphomatosis and polyradiculopathy could occur.<sup>4,5</sup> Bell's Palsy is commonly a self-limiting disease with most patients recovering within a few weeks to a month in our patients.<sup>6</sup> A short course of prednisolone has been shown to hasten recovery.<sup>6</sup> Though prednisolone, like other corticosteroids is known to suppress cellular immunity, its use did not adversely affect the outcome in the patients.

It is recommended that screening for antibodies to HIV be included in the diagnostic workup of patients presenting with peripheral facial nerve paralysis.

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