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Teaching Video *NeuroImages*: Periodic alternating nystagmus evident only in darkness



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An 81-year-old man with retinitis pigmentosa had severe, slowly progressive visual loss that began at age 20. Intermittent nystagmus was observed for 1 decade. Examination revealed severe retinal atrophy and periodic alternating nystagmus (PAN) that occurred only in darkness (video on the *Neurology*[®] Web site at www.neurology.org).

PAN refers to horizontal nystagmus that periodically reverses direction.¹ It is caused by instability of brainstem velocity storage mechanisms that regulate rotationally induced nystagmus, with intact vestibular “repair mechanisms” that are calibrated by visual

input.¹ PAN may emerge with impairment of central visual stabilization mechanisms or deficient visual input.² This case demonstrates that the presence of PAN may correlate with ambient lighting and maintenance of visual fixation.

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Supplemental data at
www.neurology.org

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