Malignant Melanoma: An Unusual Complication of Therapy

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Case Presentation

• RA: 75 yo man presented with mole on L shoulder changing in appearance
• Sought dermatology opinion: biopsied…
• Referred to Dr. Roger Perry who performed wide local excision and sentinel lymph node procedure
• Pathology…. 
Case Presentation, continued

• Staging:
  – T4 by virtue of depth
  – N1a by virtue of isolated tumor cells in single sentinel lymph node
  – Therefore stage IIIA

• PET scan done....

• Offered adjuvant interferon on basis of existing data
Case Presentation, continued

• Received one month of high-dose interferon with some difficulty (fatigue, rash)
• Shortly after starting maintenance interferon he developed ptosis and diplopia
• Physical exam revealed ptosis, enlarged pupil and dysconjugate gaze; some conjunctivitis
• MRI brain normal, referred to neurology
• Admitted for repeat MRI with contrast and lumbar puncture with CSF analysis and cytology
• Only abnormality was slight elevation of total protein
Case Presentation, continued

• Interferon stopped
• Gradually improved: ptosis is gone and diplopia is much improved
• Is this a complication of interferon therapy?
The Course of the Oculomotor Nerve
Third-Nerve Palsy: Differential Diagnosis

- Midbrain lesions: usually bilateral and often associated with other cranial nerve deficits
- Subarachnoid space lesions secondary to ischemia; can be isolated; can be from meningeal carcinomatosis
- Cavernous sinus lesions, e.g., thrombosis
- Lesions of the orbit: usually fractures from trauma
- Enlarging intracranial aneurysms of various locations – render workup an urgent matter
- Mononeuropathy from diabetes
- Drugs not on the usual list
Third-Nerve Palsy from Interferon

- Diagnosis of Exclusion
- Very few prior case reports, none using this schedule or for this disease
  - Case 1: 42 yo woman on IFN and ribavirin for hepatitis C; diplopia started after 2 weeks, ceased promptly after stopping IFN
  - Case 2: 64 yo man on IFN for hairy cell leukemia; developed bilateral III\textsuperscript{o} nerve palsy 3 months after starting IFN; resolved promptly after discontinuation
  - Case 3: 67 yo man with hepatitis C treated with IFN alone developed III\textsuperscript{o} n palsy after 4 months; resolved within 2 months after discontinuation
How Do We Prove This??

• Reintroduce interferon and see what happens.....hard to justify
• Make sure he does not develop meningeal carcinomatosis after all...watchful waiting
• All other known etiologies have been excluded through work up
• Only case of IFN-induced III\textdegree{} n palsy using this treatment schedule
  – Probably worthy of case report
Conclusion

- Our patient likely had very rare complication of fairly common treatment
- Hard to prove connection with certainty without reintroducing drug....not justifiable
- Rare complications of anti-neoplastic therapy need to be reported; sometimes it takes thousands of “post-licensing” cases to find rare events