

## Melanoma, Metastasis, and Ipilimumab

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 Wofford College Research Symposium  
 12/9/11

## Melanoma: Stages of Growth

- Sixth leading type of cancer in the U.S.
- Melanocytes grow out of control
  - Between epidermis and dermis
- 1. Radial growth phase (tumor less than 1mm thick)
- 2. Invasive radial growth phase (tumor less than 1mm thick)
- 3. Vertical growth phase (tumor more than 1mm thick)
  - Host elicits immunological reaction
- 4. Regression

## Diagnosis and Classification

- "ABCDE"
  - A: asymmetrical skin lesion
  - B: borders of the lesion are irregular
  - C: color (multiple)
  - D: diameter greater than 6mm
  - E: Enlarging or evolving
- Various categories of classification:
  - Superficial spreading, mucosal, nodular, soft tissue

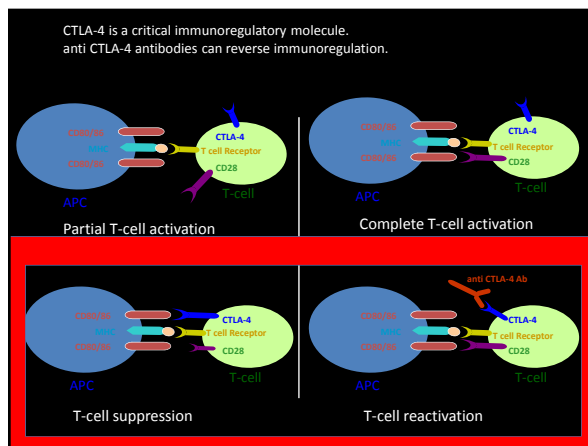


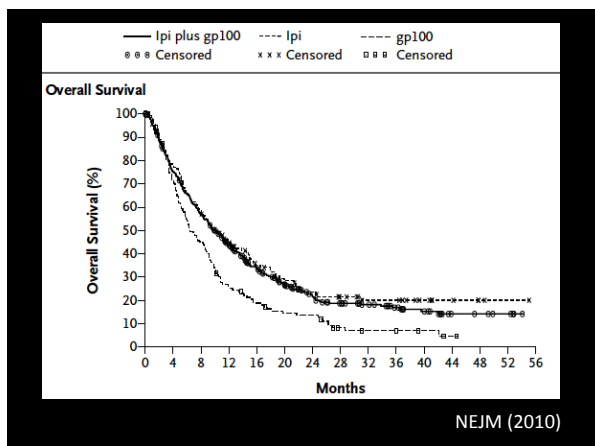
## Therapy Options

- Surgery
  - Standard: complete surgical excision, assessment of detectable metastatic disease, followup
- Radiation therapy
  - After surgical excision for patients with locally or regionally advanced disease or for patients with unresectable melanoma
- Adjuvant therapy
  - Chemotherapy: dacarbazine (DTIC)
  - Immunotherapy: Interleukin-2, interferon

## Ipilimumab (Yervoy)

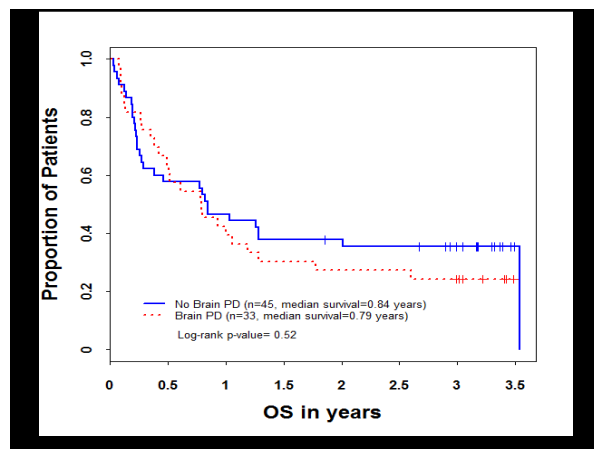
- FDA approved monoclonal antibody developed by Bristol-Myers Squibb
  - Approved in March 2011 to treat patients with late-stage melanoma that has spread or cannot be removed by surgery
- Adverse effects due to T cell activation and proliferation
  - Mostly associated with GI tract
- Mode of action...





- ### M.D. Anderson Study
- “Chart review” through patient database
  - Data collected:
    - Prior systemic treatment: Y/N
    - Prior IL-2 treatment: Y/N
    - Lesions/Metastases
      - Soft tissue, lymph nodes, lungs, liver, bone, brain/meninges
    - Cancer stage
    - Serum LDH
    - Brain mets: Y/N
      - Date of brain mets/recurrence
    - PD in brain: Y/N
    - Brain response to IPI: Y/N
    - Overall survival from treatment

Disclaimer!



- ### Other Results
- Technical difficulties...
  - Median time to PD in patients who developed brain mets = 0.21 years, 95% CI = 0.17-0.24 years
  - Nearly 42% of the treated patients had disease progression/recurrence on IPI treatment.

- ### Conclusions
- Based on current study, metastases to brain did not significantly affect OS in melanoma patients
  - Ipilimumab did not appear to prevent recurrence or disease progression in the brain
    - Is Ipilimumab more effective than chemotherapy?

## Future Directions

- Completing data analysis
  - Data of patients not on ipilimumab to compare with our patient group
    - e.g. OS and PD in patients using IPI vs. not using IPI
- As is fairly recently approved, further studies to compare effectiveness to other available treatment protocols.

Questions?

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