

# The Ochsner Journal Continuing Medical Education

## CME QUESTIONS VOL. 10, NO. 2

This section provides a review. Mark each statement (circle the correct answer) according to the factual material contained in this issue and the opinions of the authors. A score of 70% per article is required to qualify for CME credit.

### The Epidemiology, Prevention, and Detection of Melanoma

1. Not only is melanoma the sixth most common fatal malignancy in the United States, but it is also the most common type of skin cancer when compared to basal and squamous cell carcinoma.  
*True or False*
2. Familial Atypical Multiple Mole and Melanoma (FAMMM) syndrome is related to a mutation in which of the following genes/proteins:
  - a. MENIN gene.
  - b. p53 protein.
  - c. p16 protein.
  - d. FAMMM gene.
  - e. RET proto-oncogene
3. According to the World Health Organization, ultraviolet radiation and tanning bed exposure are not considered Class I carcinogens  
*True or False*
4. Utilization of sunblock will inhibit your body's ability to produce sufficient vitamin D.  
*True or False*
5. Dysplastic Nevus Syndrome is classically defined by all of the following except:
  - a. At least one nevi that is 8mm or larger in diameter.
  - b. At least one nevi with clinically atypical features.
  - c. Over 100 nevi.
  - d. Family history of melanoma.

### Pitfalls and Important Issues in the Pathologic Diagnosis of Melanocytic Tumors

1. Features that should be taken into account when interpreting the pathology of a melanocytic tumor include:
  - a. Age of the patient.
  - b. Anatomic location of the lesion.
  - c. History and timing of lesional trauma, topical treatment, or surface "irritation".
  - d. Dermal mitoses.
  - e. All of the above.
2. Pathologic features of regenerating nevi include:
  - a. Suprabasilar epidermal melanocytes.
  - b. Cytologic atypia.
  - c. Occasional dermal mitoses.
  - d. HMB45 positivity.
  - e. All of the above
3. Desmoplastic melanoma
  - a. Is never associated with a lentigo maligna.
  - b. Most commonly involves skin sites protected from solar exposure.
  - c. Usually shows positive staining for HMB45 and Melan A.
  - d. May resemble a scar clinically and pathologically.
  - e. All of the above

### The Role of DNA Repair Capacity in Melanoma Skin Cancer Risk in a Population Chronically Exposed to High Levels of Sunlight

1. Two important causes of mortality in xeroderma pigmentosum are
  - a. Melanoma and squamous cell carcinoma.
  - b. Melanoma and basal cell carcinoma.
  - c. Melanoma and neurological complications.
  - d. Basal cell and squamous cell carcinoma.
2. Melanoma has been associated with intermittent intense exposure to high doses of UV light, rather than long-term, constant exposure to UV.  
*True or False*
3. Melanoma first grows vertically and after a few years then expands its growth horizontally.  
*True or False*
4. The majority of melanomas are diagnosed when regional lymph nodes or metastases are involved.  
*True or False*

### MicroRNA in Melanoma

1. All heritable changes in gene expression not involving DNA coding are generally termed:
  - a. Hypergenetics.
  - b. Gene marking.
  - c. Epigenetics.
2. One microRNA can potentially bind and regulate the expression of hundreds of genes.  
*True or False.*
3. Which highly conserved family of microRNAs was the first validated to be involved in the formation of cancers and is an important negative regulator of early melanoma development through the inhibition of cell-cycle progression?
  - a. miR-34
  - b. let-7
  - c. miR-17-92

4. MicroRNAs are relatively more stable and tolerate RNAases better than mRNAs, both in fixed tissue samples and in blood samples.  
*True or False.*
5. High expression of which microRNA was significantly correlated with poor recurrence-free and overall survival in a panel of 128 primary melanomas, as published by Satzger et al.?
  - a. miR-15b
  - b. let-7
  - c. miR-34a

### New Horizons in Melanoma Treatment: Targeting Molecular Pathways

1. A patient presents with metastatic melanoma with an acral primary. Mutation testing for which of the following gene panels would be the highest yield to find a mutation?
  - a. BRAF
  - b. BRAF, NRAS
  - c. BRAF, NRAS, KIT
  - d. GNAQ, GNA11
2. Which of the following mutations is most common in uveal melanoma?
  - a. BRAF
  - b. NRAS
  - c. KIT
  - d. GNAQ
3. A patient presents with metastatic melanoma with an anal mucosal primary. Which of the following is most likely?
  - a. BRAF mutation
  - b. NRAS mutation
  - c. KIT mutation
  - d. No mutation in any of the above

### Management of Regional Lymph Node Basins in Melanoma

1. Which of the following histopathologic characteristics of a primary lesion best predicts the likelihood of coexisting lymph node metastases?
  - a. Clark level
  - b. Ulceration
  - c. Breslow thickness
  - d. Visual characteristics (size, color, pattern, etc.)
2. Which of the following is NOT an indication for pelvic lymphadenectomy?
  - a. Radiographic evidence of pelvic metastases
  - b. Clinically palpable adenopathy in the groin that is biopsy-proven to be melanoma
  - c. Cloquet's node harboring metastatic melanoma
  - d. Primary on the trunk, SLN positive in the groin
3. Contrary to the historic belief that radiation therapy has little utility in the management of melanoma, it has recently been shown to improve both regional control and distant metastasis-free survival in which of the following nodal basins?
  - a. Inguinal
  - b. Pelvic
  - c. Cervical
  - d. Epitrochlear
4. Approximately 70-80% of those with micrometastases detected on SLNB will have no evidence of further metastatic disease on CLND.  
*True or False*

### Adjuvant Immunotherapy and Radiation in the Management of High-risk Resected Melanoma

1. The potential advantages to adjuvant therapy for high-risk melanoma include:
  - a. A delay in the time to clinically evident disease recurrence.
  - b. Reduction in the risk of a specific form of and complications related to recurrence.
  - c. Increase in the disease-specific survival by administration of therapy earlier in the course of disease when it is more effective.
  - d. The patients' sense of combating their disease rather than awaiting recurrence.
  - e. All of the above
2. The indications for sentinel node biopsy include:
  - a. Melanomas  $\geq 1$  mm deep.
  - b. Any atypical melanocytic lesion.
  - c. Ulcerated melanomas.
  - d. A only.
  - e. A and C above.
3. There is a proven recurrence-free survival advantage to adjuvant immunotherapy for high risk melanoma.  
*True or False.*

(Questions continued on opposite side)

(Questions continued from opposite side)

- The relative indications for adjuvant radiation for high-risk melanoma include:
  - Multiple positive nodes (>3 nodes).
  - Large nodal size (>3cm).
  - Extracapsular extension.
  - Local recurrence.
  - All of the above.

### Novel Targeted Therapies for the Treatment of Metastatic Melanoma

- Which of the following entities often contain BRAF activating mutations?
  - Melanoma
  - Benign nevi
  - Dysplastic nevi
  - A and C only
  - All of the above
- CKIT mutations and amplification are seen most frequently in which of the following types of melanoma?
  - Superficial spreading cutaneous melanoma
  - Acral
  - Mucosal
  - B and C only
  - All of the above
- Sorafenib in combination with chemotherapy has been shown in clinical trials to:
  - Improve PFS and OS when combined with DTIC.
  - Improve PFS but not OS when combined with DTIC.
  - Improve PFS and overall survival when combined with carboplatin and paclitaxel in the front line setting.
  - Improve PFS when combined with carboplatin and paclitaxel in the second-line setting.

- Both PI3K and MAPK pathways are activated in malignant melanoma.  
*True or False*
- Which of the following genes is most commonly mutated in patients with familial melanoma?
  - CDKN2A
  - APC
  - BRCA1
  - BRCA2
  - MSH2

### Guess the Case

- Which of the following tumor types is no longer considered a true uterine sarcoma?
  - Endometrial stromal sarcoma
  - Undifferentiated sarcoma
  - Carcinosarcoma
  - Leiomyosarcoma
- Which of the following is not associated with the diagnosis of a uterine sarcoma?
  - Rapidly growing uterine fibroids
  - Postmenopausal bleeding
  - Negative endometrial biopsy or sampling
  - Pelvic pain disproportionate to uterine fibroids
- Which method of treatment has been shown to be most effective for uterine sarcomas?
  - Chemotherapy
  - Radiation therapy
  - Chemoradiation
  - Surgical excision

## The Ochsner Journal CME CREDIT APPLICATION FORM

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### VERIFICATION OF ATTENDANCE

Please indicate the actual time spent reading and completing this education activity. \_\_\_\_\_ hour(s) and \_\_\_\_\_ minutes. The maximum number of credits awarded for this activity is 9 *AMA PRA Category 1™* credits.

Signature \_\_\_\_\_

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### EVALUATION

Your response to these questions helps us to enhance our CME offerings. Please take the time to respond and return the evaluation. Thank you.

Please use the following codes to answer items 1-7.

- SA – Strongly Agree
- A – Agree
- U – Undecided
- D – Disagree
- SD – Strongly Disagree

- The objectives of the CME activity were clearly stated.  
SA      A      U      D      SD
- The content of the journal articles was up-to-date.  
SA      A      U      D      SD
- The journal articles illustrated independence, objectivity, balance, and scientific rigor.  
SA      A      U      D      SD
- The content was closely related to objectives of my clinical practice and/or teaching.  
SA      A      U      D      SD

- The journal articles increased my knowledge of the subject.  
SA      A      U      D      SD
- The content of the journal articles met my personal expectation and needs.  
SA      A      U      D      SD
- I will apply the information learned from these journal articles in my clinical practice.  
SA      A      U      D      SD

Do you have any suggestions as to how to improve the content of the journal articles?  
\_\_\_\_\_

What topics would you like to see in future journal articles?  
\_\_\_\_\_

Thank you for completing this evaluation and survey.