

The Daily Dose: Study Tips for Exam and Board Preparation

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The Daily Dose: An Exercise in Histopathology

I've been engaged in some one-on-one mentoring with individuals, so I'd like to offer some of the content and lessons learned; the most recent conversation pertains to reporting and signout. These are my thoughts and algorithms, based on the instruction I received.

I shared three 'blue cell tumor' cases, just the raw images, with no text or commentary other than images of what IHC or molecular was performed. The cases included:

- alveolar rhabdomyosarcoma (ARMS)
- esthesioneuroblastoma
- Merkel cell carcinoma

I suggested the following three questions, before obtaining immunohistochemistry (IHC), molecular or other testing:

- What might a preliminary diagnosis line be?
- What IHC, molecular or other tests might be considered to arrive at a conclusion?
- What type of synoptic summary and staging might be required or considered?

For the case examples I shared, I provided an suggested diagnostic line for a case identified as a 'blue cell tumor' using the Merkel cell carcinoma as the example and considered the following diagnostic line:

HIGH GRADE POORLY DIFFERENTIATED MALIGNANCY WITH FEATURES OF NEUROENDOCRINE CARCINOMA

I then suggested an algorithm where the reporting pathologist may make recommendations for IHC and molecular testing in order to arrive at the conclusion.

I recommended three references relating to small round blue cell tumors; bear in mind that these are constantly being updated as more diagnostic tests are developed, approved and made commercially available but the focus on algorithm remains the teaching point:

- Bahrami A, Truong L, Ro, J. Undifferentiated tumor: true identify by immunohistochemistry. Arch Pathol Lab Med. 2008; 132:326-348
- Gerald W. A practical approach to the differential diagnosis of small round cell tumors of infancy using recent scientific and technical advances. Int J Surg Pathol. 2000; 18(2):87-97
- Wick M. Immunohistochemical approaches to the diagnosis of undifferentiated malignant tumors. Annals of Diagnostic Pathology. 2008; 12:72-84