BCP 22 CAP Expanation

The arrowed cells are blast cells, as correctly identified by 73.4% of referees and 75.3% of participants. 9.8% of referees and 5.7% of participants identified the arrowed cells as immature or abnormal cells, would refer. This is considered to be a correct response. A blast is a large, round-to-oval cell, 10 to 20 μm in diameter. In the blood film, the cell may appear flattened or compressed by adjacent red blood cells. The nuclear-to-cytoplasmic ratio is high, varying from 7:1 to 5:1. The blast often has a round to oval nucleus, but sometimes it is indented or folded. The blast cell has fine, lacy or reticular chromatin. One or more prominent nucleoli may be seen. The cytoplasm is variably basophilic and typically agranular. The morphologic features of a blast cell do not permit determination of the cell lineage, ie, myeloblast versus lymphoblast. The one exception is the presence of Auer rods, which are diagnostic of myeloid lineage (ie, “myeloblast”). Other cells may have the appearance of a blast, including some lymphoma cells. In the absence of Auer rods, immunophenotyping by flow cytometry, immunohistochemistry on tissue sections, or, less commonly, cytochemical staining (eg, peroxidase or Sudan black) is required to determine the lineage of a given blast cell.

SGMC Response Unacceptable

3.5% of referees and 4.2% of participants identified the arrowed cells as promyelocytes. Promyelocytes are large (12-24 µm) round to oval cells with fine chromatin, basophilic cytoplasm, and multiple distinct azurophilic (primary) granules; a paranuclear hof may be present. The arrowed cells lack primary granules and have a higher N:C ratio than promyelocytes.