TRAINING UPDATE

Lab Location:	SGMC	**Date Distributed:**	4/6/23
Department:	Core Lab	**Due Date:**	4/30/23

DESCRIPTION OF PROCEDURE REVISION

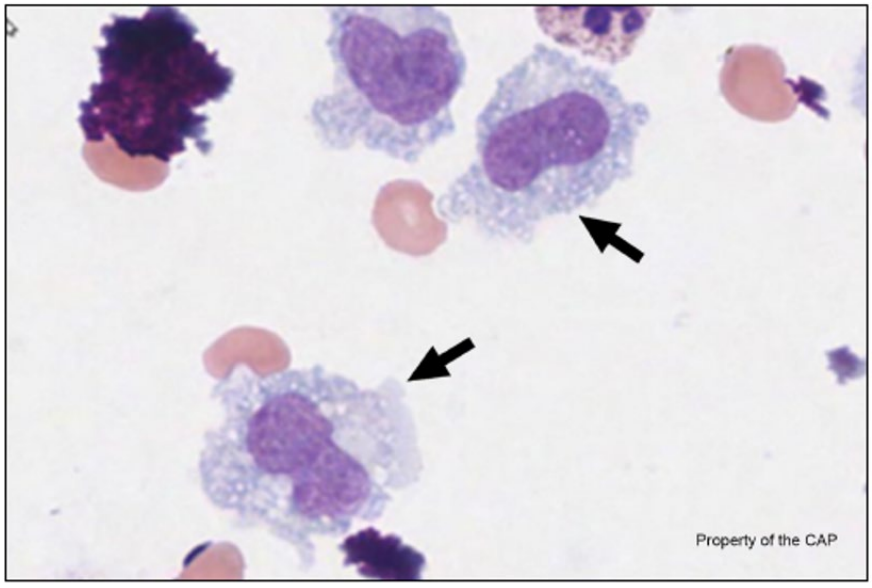
CELL ID REVIEW

CSF cell ID: CMP-09 (CAP Survey CM-A 2023)

Description:

Please review the arrowed cells in the body fluid image below. We reported this as a Macrophage/Lipophage The correct response was Monocyte/Macrophage.

(PERITONEAL FLUID, CYTOCENTRIFUGE, WRIGHT-GIEMSA, 100X)

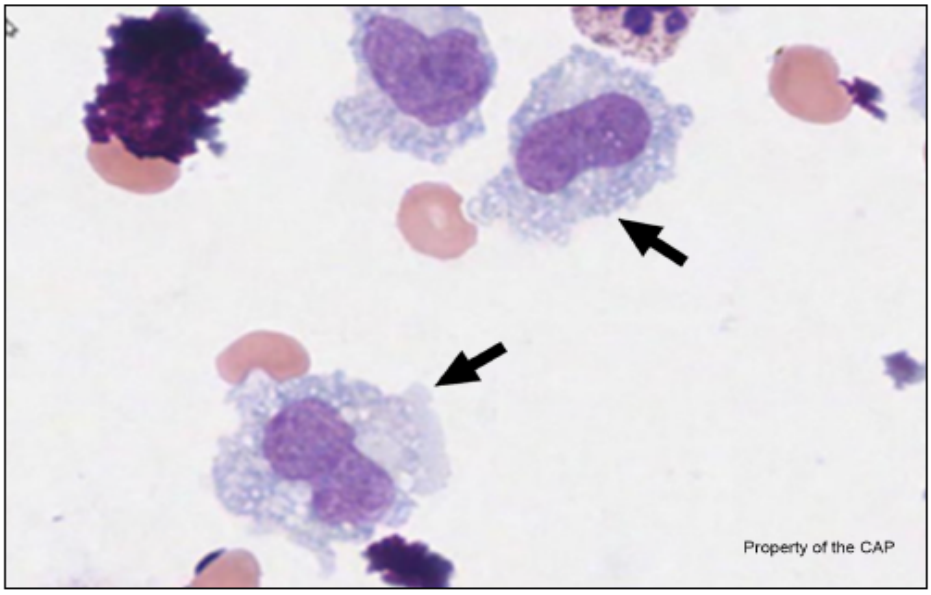


16.0% of participants identified the arrowed cells as lipophages. Lipophages are macrophages that contain uniform, small lipid vacuoles that completely fill the cytoplasm. The arrowed cells have occasional cytoplasmic vacuoles that do not fill the cytoplasm.

Document your compliance with this training update by taking the quiz in the MTS system.

Body Fluid Photographs

CMP-08



Identification	Participants		Evaluation
	Freq	%	
Monocyte/macrophage	3075	82.2	Good
Macrophage containing abundant uniform small lipid vacuoles/droplets (Lipophage)	600	16.0	Unacceptable

The arrowed cells are monocyte/macrophages, as correctly identified by 82.2% of participants. Monocytes/macrophages arise from bone-marrow derived cells. Monocytes circulate in peripheral blood. Macrophages evolve from monocytes after migration into tissues and body fluids. Monocyte/macrophage morphology in fluids is quite variable, ranging from the typical monocyte of the peripheral blood to a vacuolated, activated stage with the morphology of a typical macrophage. Monocytes are usually large (12 to 20 µm) with abundant blue-gray cytoplasm and often containing sparse azurophilic granules. The nucleus is round to oval and may show indentation, giving it a kidney bean or horseshoe shape. The chromatin is lacy and small nucleoli may be apparent. Macrophages are larger cells (15 to 80 µm) with abundant cytoplasm showing evidence of active phagocytosis. This includes ingested material such as other blood cells or bacteria, hemosiderin, fungi, and remnants of digested materials as well as cytoplasmic vacuoles. One or more round to oval nuclei are present and occasionally prominent nucleoli may be seen. Macrophages can at times be difficult to differentiate from mesothelial cells. Mesothelial cells are usually larger than monocytes/macrophages and usually show a biphasic staining cytoplasm and surface microvilli.

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