

Most Common Cutaneous Metastasis Based on Anatomical Location

by Laura Battle, MD

Location	Malignancy Type	Clinical Presentation	Histopathologic Findings	Staining pattern	
Scalp	Men	^ Lung	Alopecia neoplastica	Small cell: Scant cytoplasm	+keratins, +TTF-1, +CD56, +/-NSE, +/-chromogranin, +/-synaptophysin
				Non-small cell (adenocarcinoma): Gland formation	+CK7, +/-TTF-1
		Renal- Clear cell carcinoma	Pyogenic granuloma-like	Prominent hemorrhage, clear cells	+EMA, +CD10, +PAX8
			Alopecia neoplastica	Clear cells	+EMA, +CD10, +PAX8
	Women	*Breast	Alopecia neoplastica	Lobular: Single filing	+CK7, +GCDFR-15, +ER/PR, -CK20
				Ductal: Glandular structures, comedo necrosis	+CK7, +GCDFR-15, +ER/PR, -CK20
Face and neck	Men	SCC of the head and neck	Nonspecific papulonodules	Large cells with intercellular bridges, keratin pearls	+CK5/6, +p63, +CK903
		^ Lung	"Clown nose" (reddish-brown bulge of nasal tip)	Small cell and non-small cell: see above	See above
	Women	*Breast	Nonspecific papulonodules	Lobular and Ductal: See above	See above
	Both	ALL	Nonspecific papulonodules	Monotonous infiltrate, "sheets of cells"	B-cell type MC: +TdT, +CD5, +CD19, +CD20, +CD10
					+CD5, +CD20, +CD43
					+CD13, +CD33, +CD68, +myeloperoxidase
					-leukocyte alkaline phosphatase
Lower extremities	Both	Melanoma	Black papules and nodules, though they may be amelanotic	Epithelioid cells with prominent nucleoli confined to the dermis	+S-100, +Melan-A (MART-1), +HMB45, +MITF
Chest	Men	^ Lung	Nonspecific papulonodules	Small cell and non-small cell: See above	See above
	Women	*Breast	Inflammatory carcinoma (carcinoma erysipeloides)	Tumor cells in dilated lymphatic vessels	+CK7, +GCDFR-15, +ER/PR, -CK20
			En cuirasse: Indurated with <i>peau d'orange</i> appearance	Fibrosis with infiltrating tumor cells	+CK7, +GCDFR-15, +ER/PR, -CK20
			Carcinoma telangiectodes: Red-violent papules	Tumor cells in lymphatic vessels, RBC sludging	+CK7, +GCDFR-15, +ER/PR, -CK20
		Paget's disease	Large, atypical epithelial cells with abundant cytoplasm, "eyeliner sign"	+CK7, +CAM 5.2, +EMA, +AE1/AE3, +PAS	



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Abdomen	Men	Colon	Peri-umbilical nodule "Sister Mary Joseph nodule"	Columnar cells, intracytoplasmic mucin, gland formation, "dirty" necrosis	+CK20, +CK7, +CDX2, +villin
		^ Lung	Nonspecific papulonodules	Small cell and non-small cell: See above	See above
	Stomach	Peri-umbilical nodule "Sister Mary Joseph nodule"	Signet ring cells	+CK7, +CK20, +CDX2	
Abdomen	Women	Colon	Peri-umbilical nodule "Sister Mary Joseph nodule"	Columnar cells, intracytoplasmic mucin, gland formation, "dirty" necrosis	+CK20, +CK7, +CDX2, +villin
		^ Lung	Nonspecific papulonodules	Small cell and non-small cell: See above	See above
		*Breast	Nonspecific	Lobular and Ductal: See above	See above
Back	Men	^ Lung	Nonspecific papulonodules	Small cell and non-small cell: See above	See above
		*Breast	Nonspecific	Lobular and Ductal: See above	See above
	Women	Colon	Nonspecific papulonodules	See above	See above
Pelvis	Men	Colon	Nonspecific papulonodules	See above	See above
		Colon	Nonspecific papulonodules	See above	See above
	Women	Ovary	Nonspecific papulonodules	Psammoma bodies in papillary serous carcinoma	+CA125, +CK7, +ER/PR, +WT-1 (serous carcinoma)

*Indicates most common source of cutaneous metastasis for women.

^ Indicates most common source of cutaneous metastasis for men.

Abbreviations: Neuron-specific enolase (NSE), Acute lymphoblastic leukemia (ALL), Chronic lymphocytic leukemia (CLL), Acute myeloid leukemia (AML), Chronic myeloid leukemia (CML)

References

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