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Ecru and Buff-Melanosis Lymph Node

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Melanosis of the lymph node configures as an exceptional manifestation of lesions of malignant melanoma delineating comprehensive retrogression.

The extremely exceptional melanosis of lymph node may be additionally designated as tumoral melanosis, nodular melanosis or nodal melanosis. Nodal melanosis may emerge from a potentially retrogressed malignant melanoma, particularly within subjects with significant disease burden or arise from high grade lesions of malignant melanoma.

Melanosis of lymph node primarily arises within sentinel lymph nodes concurrent with sites of retrogressed malignant melanoma. Additionally, mesenteric lymph nodes may be implicated.

Melanosis of the lymph node may appear on account of focal retrogression of metastatic foci of malignant melanoma. Besides, transposition of melanophages towards draining lymph nodes arising from primary lesion may induce melanosis(1,2).

An estimated 50% of lesions appear associated with foci of advanced malignant melanoma or distant metastasis of malignant melanoma(1,2). Nevertheless, nearly 50% of lesions devoid of primary or metastatic foci of malignant melanoma may indicate possible retrogression of a benign or malignant epithelial lesion as pigmented basal cell carcinoma, seborrheic keratosis or confinement of malignant melanoma on account of competent immune system(2,3).

Melanosis delineates enlargement of lymph nodes wherein mesenteric lymph nodes may display spindle shaped bodies of yellow brown hue, possibly on account of melanosis coli(2,3). Clinically, tumoral melanosis recapitulates lesions of malignant melanoma and may represent as cystic lesion and hyper-pigmented flat or papulo-nodular lesion(3,4).

Grossly, nodal melanosis depicts enlarged lymph nodes impregnated with or devoid of deposition of brown pigment(3,4).

Upon microscopy, lymph node demonstrates accumulation of cells imbued with brown pigment. The cells are aggregated within sub-capsular zone and lymphatic sinusoids. Of epithelioid or spindle shaped configuration, the pigmented cells enunciate vesicular chromatin and inconspicuous nucleoli(6,7).

Morphologically, lesion is devoid of melanocytes. However, focal inflammation, fibrosis and aggregates of melanophages may be encountered(6,7).

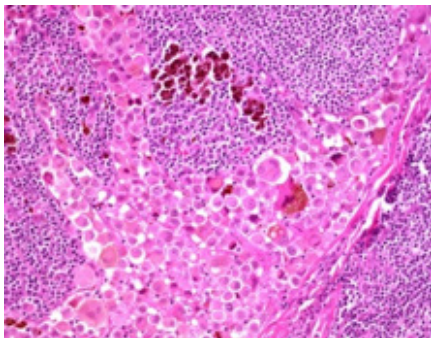

Figure 1: Nodal melanosis depicting aggregates of epithelioid cells and melanophages impregnated with brown pigment confined to sub-capsular zone and lymphatic sinuses. Focal fibrosis and inflammatory cell exudate is encountered (11).

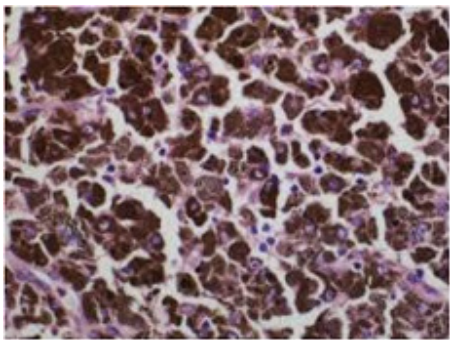

Figure 2: Nodal melanosis delineating epithelioid cells and melanophages impregnated with an intense, brown pigment(12).

Attributes	CD30+ALCL	Borderline	LyP
Clinical Aspects			
Extent	Solitary > regional (exceptionally) diffuse	Regional	Regional/Diffuse
Lesion	Nodular, Tumours	Nodular	Papules/ papulo-nodular
Regression	Infrequent	Frequent	Consistent
Extra- cutaneous disease	25%-30%	Absent	Absent
Histological Aspects			
Wedge shaped infiltrate	Absent	Infrequent	Prominent
Sheets of CD30+ cells	Persistent	Miniature aggregates	Absent
Subcutaneous infiltrate	Present	Absent	Absent
Immune reactive CD30+	>75% of tumour cells	Miniature aggregates	Scattered CD30+ reactivity

Table: Demarcation between Cutaneous CD30+ ALCL, Borderline Lesions and Lymphomatoid Papulosis(5)

ALCL: anaplastic large cell lymphoma.

Melanosis of the lymph node appears immune reactive to CD68. Pigment laden cells appear immune non reactive to S100 protein, human melanoma black 45(HMB45) antigen or Melan A(8,9). Melanosis lymph node requires segregation from lesions of malignant melanoma associated with distant metastasis(8,9).

Appropriate discernment of malignant melanoma in the absence of melanocytes may be challenging. Besides, tumoural melanosis may represent a variety of regressed benign or malignant, pigmented lesions(9,10).

Melanosis of lymph node may be suitably managed with surgical extermination of the lesion. Subsequent follow up is mandated and appears akin to monitoring adopted for lesions of malignant melanoma. Sentinel lymph node biopsy may be selectively employed for cogent diagnosis, contingent to clinical suspicion of lesion. Multidisciplinary team approach appears competent for treating nodal melanosis(9,10).

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11. Image 1 Courtesy: Science photo library
12. Image 2 Courtesy: Science direct