

Embed and Lodge- Prosthesis related Lymphadenopathy

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Lymphadenopathy associated with insertion of varied prosthesis may be discerned as an incidental feature secondary to surgical procedures as radical prostatectomy.

Upon microscopy, lymphatic sinuses appear impregnated with enlarged macrophages pervaded with abundant, granular, eosinophilic cytoplasm. Indicative of intracellular polyethylene crystals, the eosinophilic cytoplasm with polyethylene particles may be highlighted by Periodic acid Schiff's stain (1,2).

Aggregates of macrophages may induce distension of lymphatic sinuses. Besides, the sinuses may demonstrate foci of 'black specks' simulating 'dirt' (3,4).

Subjects with cobalt, chromium or titanium hip implants may delineate micro-particles of heavy metal or polyethylene, especially amalgamated within pelvic lymph nodes. The condition may be associated with florid sinus histiocytosis (3,4).

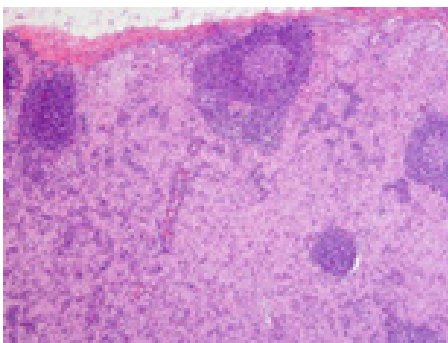


Figure 1: Prosthesis related lymphadenopathy demonstrating distended sinuses imbued with enlarged macrophages pervaded with abundant, granular eosinophilic cytoplasm. Follicular hyperplasia may concur(11).

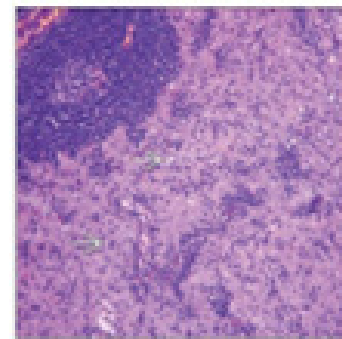


Figure 2: Prosthesis related lymphadenopathy delineating distended sinuses impregnated with enlarged macrophages permeated with abundant, granular eosinophilic cytoplasm. Follicular hyperplasia may concur(12).

International Society for Cutaneous Lymphomas(ISCL)/European Organization of Research and Treatment of Cancer(EORTC) staging of cutaneous B cell lymphoma is designated as

Primary tumour (T)

- T1: solitary cutaneous involvement
- T1a: solitary lesion <5 centimetre diameter
- T1b: solitary lesion >5centimetre diameter
- T2: regional cutaneous involvement
- T2a: all disease encompassed within <15centimetre circular zone
- T2b: all disease encompassed within >15centimetre and <30centimetre circular zone
- T2c: all disease encompassed within >30centimetre circular zone
- T3: generalized cutaneous involvement
- T3a: multiple lesions involving 2 non contiguous body regions
- T3b: multiple lesions involving ≥ 3 non contiguous body regions

Regional lymph nodes(N)

- N0: No clinical or pathological lymph node involvement
- N1: Involvement of single peripheral lymph node region which drains an area of current or preceding cutaneous tumour site
- N2: Involvement of ≥2 peripheral lymph node regions or any lymph node region which does not drain an area of current or preceding cutaneous tumour site
- N3: involvement of central lymph nodes.

Distant Metastasis

- M0: No evidence of extra-cutaneous non lymph node disease
- M1: Extra-cutaneous non lymph node disease present(5,6).

MIPI score	Disease risk	Median overall survival
<5.7	Low	Not attained
5.7 to <6.2	Intermediate	51 months
≥6.2	High	29 months

Table 1: International Prognostic Index score for mantle cell lymphoma(7,8).

MIPIb score	Disease risk	Median overall survival
<5.7	Low	Not attained
5.7 to <6.5	Intermediate	58 months
≥6.5	High	37 months

Table 2: Biological International Prognostic Index for mantle cell lymphoma (7,8).

Polyethylene fragments engendering prosthesis related lymphadenopathy may be highlighted by stains as Periodic acid Schiff’s stain (9,10).

Prosthesis related lymphadenopathy necessitates segregation from neoplasms as distant metastasis from a primary malignant melanoma (9,10).

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11. Image 1 Courtesy: Springer link
12. Image 2 Courtesy: Basic medical key