Case No 4

Aggressive haematodermic neoplasm – can we solve the puzzle?

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History

65F presented with rapid onset of multiple skin nodular lesions and enlarged right axillary lymph node

No significant past medical history

Clinical enquiry of metastatic disease
Skin biopsy

Diffuse dermal lesion
No epidermal component
Extends down skin adnexae and around nerves
Non-cohesive cells
Variable plasmacytoid morphology
Poorly defined eosinophilic cytoplasm
Large nuclei with prominent nucleoli
Apoptosis, mitotic figures
Immunophenotype

Negative

• Melan A, HMB45,
• AE1/3, CK5/6, CK7, CK20, EMA, CEA, BerEP4, ER, TTF1
• Synaptophysin, chromogranin, NSE
• Desmin, SMA, Myo D1

• CD2, CD3, CD5, CD7, CD8, CD20, CD79a, CD30
• MUM1, CD138
• CD1a
• CD14, CD163
• CD34, CD117, TdT, Myeloperoxidase, CD15

• EBER
CD56

CD2AP
(adaptor protein, CD2-associated protein)

CD123 (IL-3RA)
Immunophenotype

Positive

CD4
CD56
CD45 RA

CD68 dot-like positivity
S100

CD2AP dim, overall considered as positive


CD123 not contributory

ACK8/18
Vimentin
Working Diagnosis & DD

Diagnosis:
CD4+CD56+CD2AP+ plasmacytoid histiocytoid malignancy without epidermotropism

ADD
- Blastic plasmacytoid dendritic cell neoplasm
- Extranodal NK/T-cell lymphoma
- Mature T-cell lymphoma
- Acute myeloid leukaemia/extramedullary myeloid sarcoma
- Histiocytic & dendritic cell neoplasms