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NON-NEOPLASTIC CASE
Non-Neoplastic
History: A 49 year-old woman with a several year history of rheumatoid arthritis presents with a markedly enlarged left parotid gland. By clinical exam, the parotid gland was diffusely firm; a discrete mass was not identified. An FNA was performed.
The initial working diagnosis based upon rapid interpretation included reactive lymph node, chronic sialadenitis, LESA, and lymphoma. Therefore material for flow cytometry was sent and was negative for lymphoma.
CASE DIAGNOSIS

Cytologic Diagnosis:  
NON-NEOPLASTIC  
Consistent with lymphoepithelial sialadenitis (LESA). See note

Note: Corresponding flow cytometry is negative, supporting the diagnosis.
LYMPHOEPITHELIAL SIALADENITIS (LESA)

• Variety of names:
  • Benign lymphoepithelial lesion
  • Myoepithelial sialadenitis (MESA)
  • Mikulicz’s disease

• Often associated with Sjogren’s syndrome, rheumatoid arthritis, or other autoimmune disorders

• Can be unilateral, bilateral, solid, or cystic

• Increased risk of B-cell lymphoma, esp. ENMZL
LYMPHOEPITHELIAL SIALADENITIS (LESA):
Marked lymphoid infiltrate with scattered residual ductal elements
LYMPHOEPITHELIAL SIALADENITIS (LESA): Lymphoepithelial lesions
LYMPHOEPITHELIAL SIALADENITIS (LESA)

Cytologic Features:
• Cellular aspirate
• Mixed population of lymphocytes and plasma cells
• Germinal center fragments
• Tingible body macrophages
• Lymphoepithelial lesions
• Absence of acinar cells
LYMPHOEPITHELIAL SIALADENITIS (LESA)

Mixed population of lymphocytes
LYMPHOEPITHELIAL SIALADENITIS (LESA)

Lymphoepithelial lesion
A pitfall in the diagnosis of LESA is metastatic squamous cell carcinoma.
Differential Diagnosis of LESA

- Chronic sialadenitis
- Reactive intraparotid lymph node
- Lymphoepithelial carcinoma
- Metastatic squamous cell carcinoma
- Lymphoepithelial cyst
- B-cell lymphoma
  - ENMZL
  - Diffuse large B-cell
  - Follicular
Epithelial Salivary Gland Tumors with Lymphocytes

- Warthin tumor
- Mucoepidermoid carcinoma
- Acinic cell carcinoma
- Sebaceous lymphadenoma
- Lymphoepithelial carcinoma
- Secretory carcinoma
- Metastatic carcinoma
Chronic Sialadenitis differs from LESA by:
- Hypocellularity
- Fewer lymphocytes and germinal centers
- Smaller angulated basaloid groups rather than sheets
- Absence of lymphoepithelial lesions
LESA vs. Chronic Sialadenitis
Sialolithiasis – Often Related to Chronic Sialadenitis
LESA vs. Lymphoepithelial Carcinoma

High grade and usually EBER Positive
Immunophenotyping is essential for distinguishing LESA from lymphoma, especially ENMZL.
Salivary Gland Lymphomas

- 2-5% of salivary gland neoplasms
- Parotid is most frequently involved
- Most are B-cell NHL
- MALT and DLBCL are the most common
Salivary Gland Lymphomas: The 3 Most Common Types

**ENMZL**
- Small lymphs, centrocytes, monocytoid B cells
- Slight nuclear atypia
- CD20+, 23- to 23+, 10- to 10+, 5- to 5+, cyclin D1-, bcl 2+, bcl 6-

**Follicular**
- Mixed small & large
- Notched and grooved nuclei
- CD20+, 23- to 23+, 10- to 10+, 5- to 5+, bcl 2+, bcl 6+

**DLBCL**
- Large size: Immunoblasts & centroblasts
- Marked atypia
- CD45+, CD20+, keratin -, S-100-
Key Points

• A characteristic cytologic feature of LESA is the presence of lymphoepithelial lesions.

• The differential diagnosis of lymphoid lesions in the salivary gland is broad and includes many non-neoplastic and benign conditions, B-cell lymphoma, and carcinoma.

• Without ancillary studies, LESA may be difficult if not impossible to distinguish from MALT-type lymphoma.

• Remember: Patients with LESA have an increased risk of developing lymphoma and will often be monitored by FNA!