LYMPHOMA CASE REPORT

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Radiology and Pathology Correlation
CLINICAL PRESENTATION

• CC: 38 yo M presenting with rapidly growing right neck mass
• HPI: First noticed about a month ago, presented to OSH with hematemesis and melena
  • OSH CT scan showed neck mass, labs showed hypothyroidism
  • Started on levothyroxine, omeprazole, and famotidine
  • Mood and lethargy improved, no further bleeding
  • Now having difficulty swallowing and breathing
• PMH: Hypothyroidism
• Soc Hx: smoker, ETOH abuse
CLINICAL PRESENTATION

• Physical: VSS, right neck mass, strained voice, no other LAD
• Labs: Macrocytic anemia, elevated TSH with normal T4, elevated LDH
• Flexible laryngoscopy: Mass effect with glottis and trachea displacement
IMAGING
PROCEDURE

• US-guided FNA: 22 gauge-3.5 inch FNAs x2
• Cytopathologic evaluation of the FNA demonstrated adequate cellular material but was insufficient for definitive characterization
• Core biopsy was requested: Temno evolution 20 gauge-6 cm core biopsies x3
FURTHER IMAGING
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PATHOLOGY

- Flow cytometry: **MONOTYPIC KAPPA RESTRICTED B-CELL POPULATION POSITIVE FOR CD10**

- Final biopsy report is still pending; however, the morphology of the sample and present immunohistochemistry/cytogenetics are most consistent with Burkitt's lymphoma vs high-grade B-cell lymphoma

- PET-CT with evidence of lung and GI metastases consistent with stage IV disease.
BURKITT’S LYMPHOMA

- Commonly caused by (8,14) translocation
  - Increased expression of c-myc
  - Also associated with EBV infection
- “Starry sky” appearance
  - Benign histiocytes that have ingested apoptotic tumor cells
  - Usually CD20 positive
- Short tumor doubling time (25 hours)
TREATMENT

- Steroids with 125 mg IV solumedrol
  - TLS labs and accuchecks q6h in setting of steroid administration
  - IV hydration
- Aggressive chemotherapy regimen with Magrath regimen (CODOX-M/IVAC) while inpatient
  - Cyclophosphamide, vincristine, doxorubicin, high-dose methotrexate/ifosfamide, etoposide, and high-dose cytarabine
- LP with delivery of intrathecal prophylactic chemotherapy (cytarabine and methotrexate)
PROGNOSIS

• A majority of patients may be cured with aggressive treatment regimens
  • In children, the prognosis is good with survival rates >90%
  • In adults, the prognosis is poorer, with a 5-year survival rate of ~50%
  • Worse prognosis with bone marrow or CNS involvement (>30% 5-year survival rate)
• Prospective clinical trials using modern regimens report two-year survival rates of 80-90%
• Outside of a clinical trial, patients with refractory disease and those who relapse after an initial response to appropriate initial therapy have an extremely poor prognosis
REFERENCES

- https://radiopaedia.org/articles/lymphoma?lang=us
- https://radiopaedia.org/articles/burkitt-lymphoma?lang=us