First Reported Use of Polatuzumab-RCHP in Follicular Lymphoma, With Excellent Response

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Background

- Rituximab, cyclophosphamide, doxorubicin, vincristine and prednisone (R-CHOP) has been one of the standard chemotherapy regiments both for diffuse large B-cell lymphoma (DLBCL) and higher-grade follicular lymphoma
- The phase 3 POLARIX trial noted improved 2-year progression free survival (PFS) and 2-year event free survival in DLBCL patients with the chemotherapy regimen pola-R-CHP (rituximab, polatuzumab vedotin, cyclophosphamide, doxorubicin, prednisone) when compared to R-CHOP
- The efficacy of pola-R-CHP in high grade follicular lymphoma has not been explored

Case Description and Methods

- A 70-year-old man with a past medical history of diabetes, coronary artery disease with a stent in 2015, known aortic aneurysm and an extensive smoking history of 24 cigars a week with known lung nodules was referred to our clinic for lymphadenopathy
- He recently presented to the ED for dizziness and warmth
- PET-CT scan was done at that time to follow up on his known lung nodules, which showed no uptake.
- A new enlarged 1.3 by 1.8 cm para-aortic lymph node with a standardized uptake value of 19.8 was noted with other abnormal regions identified
- Denied any systemic symptoms
- Lymph node biopsy was notable for grade 3B follicular lymphoma
- Lactate dehydrogenase (LDH) was noted to be 324 U/L
- Given the grade of lymphoma, the decision was made to treat him as an aggressive lymphoma with six cycles of pola-R-CHP
- Follow up PET-CT after 2 cycles of chemotherapy showed a complete response with interval resolution of the para-aortic lymphadenopathy
- He tolerated the chemotherapy well with the exception of a notable decrease in his ejection fraction from 65% to 50%, so doxorubicin was excluded from the 6th and final cycle of the combination
- PET-CT obtained after 6th and final cycle continued to show no hypermetabolic foci

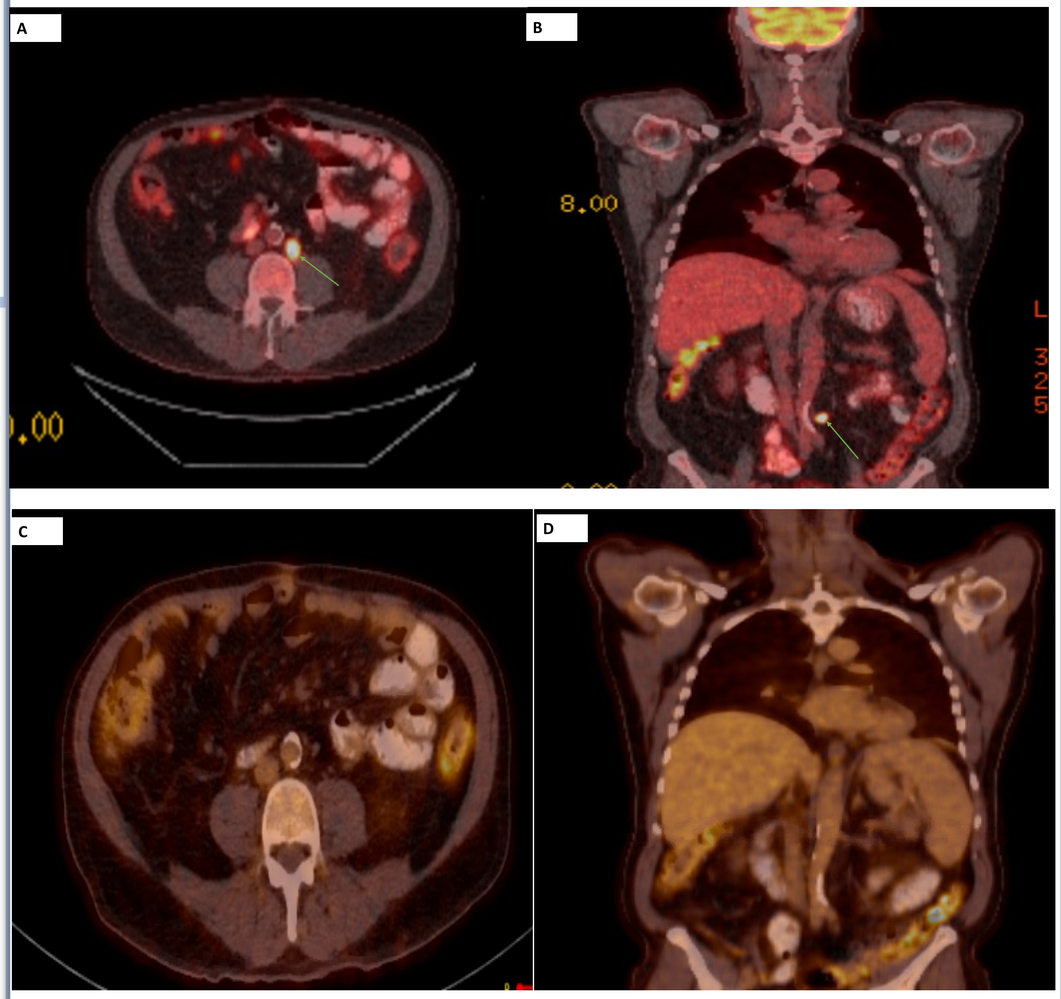


Figure 1

- (A) Fused PET-CT transverse image of patient before starting treatment. Green arrow indicating paraortic 1.3x1.8 cm lymph node that was biopsy positive for high grade follicular lymphoma
- (B) Fused PET-CT coronal image of patient before starting treatment. Green arrow indicating paraortic 1.3x1.8 cm lymph node that was biopsy positive for high grade follicular lymphoma
- (C) Fused PET-CT transverse image of patient after completion of 6 cycles of pola-R-CHP, paraortic lymphadenopathy no longer seen, no other hypermetabolic lymph nodes noted
- (D) Fused PET-CT coronal image of patient after completion of 6 cycles of pola-R-CHP, paraortic lymphadenopathy no longer seen, no other hypermetabolic lymph nodes noted

Conclusions

- R-CHOP is often the chemotherapy of choice in aggressive follicular lymphoma, grade 3 or greater
- Follicular lymphoma grade 3 or greater is typically treated like DLBCL
- However, recent data supports improved PFS with pola-R-CHP in DLBCL
- Therefore, we extrapolated and utilized pola-R-CHP in our patient with grade 3B follicular lymphoma
- To our knowledge this is the first reported use of Pola-RCHP in follicular lymphoma
- The patient had an excellent response to this treatment

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