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## 627.AGGRESSIVE LYMPHOMAS: CLINICAL AND EPIDEMIOLOGICAL

### Ultra-Hypofractionated Involved Site Radiation Therapy (ISRT) As Salvage or Bridging Therapy in Aggressive Non-Hodgkin Lymphomas

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**Introduction:** Conventional fractionated radiation treatment (RT) to a total dose of 40-50 Gy in 20-25 fractions is typically recommended in the 'definitive' intent treatment of aggressive chemorefractory non-Hodgkin lymphoma. However, during the time of COVID-19, recommendations for hypofractionated courses (5-13 fractions) arose (Yahalom et al Blood 2020) as modern radiation techniques should allow similar total doses to be delivered safely in far fewer fractions. Our aim is to evaluate the outcomes and toxicities of ultra-hypofractionated (</=5 fractions) 'definitive' ISRT in aggressive non-Hodgkin lymphomas to see if this may be an acceptable alternate recommendation beyond COVID-19.
**Methods:** We conducted an IRB-approved, retrospective review of all aggressive non-Hodgkin lymphoma patients treated at our institution with 'definitive' intent (40-50 Gy EQD2 with an $\alpha/\beta$ of 10) ultra-hypofractionated ISRT between April 2020 and July 2023. Demographic, disease-specific, and treatment-related variables were collected. Primary outcomes include objective response rate (ORR), defined as complete (CR) or partial response (PR) on post-RT positron emission tomography (PET) scans using the Lugano classification, local failure (LF), and radiation-related toxicity per CTCAE v5. Secondary outcomes include overall disease control and survival.
**Results:** 26 ultra-hypofractionated radiation treatments were identified from 23 unique patients who were treated with 'definitive' intent ISRT (39.1% salvage, 30.4% early-salvage post CAR-T, and 30.4% bridging to SCT or CAR-T). The most common dose was 30 Gy in 5 fractions (96%); all patients were treated with IMRT with SBRT-type immobilization and image guidance as clinically indicated. The most common diagnosis was DLBCL (91%). 10/23 (43%) patients were female, the majority (82%) were ECOG 0-1 performance status, and the average age at time of RT was 68.9 years. 39% had all FDG-avid sites at the time of radiation treated.
The median follow-up was 8.3 months (range 0.3-27.9 months). 26% of patients had acute radiation related toxicities, which were all grade 1-2 with the most common being fatigue (30%). There were no grade 3-4 toxicities, and no subacute or long-term toxicities. Initial local ORR was 20/21, or 95% (86% CR and 10% PR), while initial overall ORR was 12/21, or 57% (52% CR and 5% PR). At time of last follow up, only 1/24 (4%) of irradiated sites had local failure (2 data points N/A), with a TTLF of 1.5 months. 62% of patients had disease progression, with median time to disease progression of 1.5 months. At time of last follow up, 48% were dead, with a median time to death of 6.6 months.
**Conclusions:** Ultra-hypofractionated ISRT in the 'definitive' intent treatment of aggressive non-Hodgkin lymphomas has excellent local tumor control and appears to be safe with minimal acute and subacute toxicities. In addition to patient convenience and cost effectiveness, short-course ISRT allows patients to quickly move on to next-line therapy when indicated. Prospective studies and long-term follow up are needed to further validate this as an alternative radiation treatment option.

**Disclosures Awan:** *Pharmacyclics LLC, an AbbVie Company.:* Other: Contracted Research; *AbbVie Inc, ADC Therapeutics, AstraZeneca Pharmaceuticals LP, BeiGene Ltd, Bristol-Myers Squibb Company, Cardinal Health, Caribou Biosciences Inc, Celgene Corporation, Cellectar Biosciences Inc, DAVA Oncology, Epizyme Inc, Genentech, a member of the Roche:* Other: Con-

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