**Predictive Model for Response to Immunotherapy using Machine Learning and Tumor Kinetic Modeling incorporating CD8 ImmunoPET Imaging**

**Background**
- Immunotherapy has emerged as a promising cancer treatment strategy.
- Limited ability to accurately predict response to these treatments.

**Objectives**
- Develop a predictive model using early tumor size data.
- Evaluate the potential of early IgG kinetic data to predict response.

**Methods**
- Early kinetic imaging (Crefmirlimab minibody) using CD8 ImmunoPET (ImaginAb).
- Split data into early kinetic data (first 1 week) and tumor size data (after 6 weeks).
- Random Forest model was developed for predicting response to immunotherapy.

**Key Takeaways**
- Early kinetic imaging is useful in predicting response to immunotherapy.
- CD8 density and SUV from baseline to post-dose of CD8 minibody were predictive of response.

**Conclusions**
- Early kinetic CD8 minibody imaging can help in predicting response to immunotherapy.

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- ImaginAb, Imaginag (QR code or visit: imaginar.com) for providing kinetic data.

**References**