2025-RA-3200-WCLC: Tumor Treating Fields for Patients with Metastatic Non-small Cell Lung Cancer: Real World First Experience

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INTRODUCTION

- **Tumor Treating Fields (TTFields)** are frequency-specific alternating electric fields
  - Disrupt mitosis of cancer cells[1]
  - May elicit a downstream antitumor immune effect[2]
- FDA-approved in 10/2024 for the treatment of metastatic non-small cell lung cancer (mNSCLC)
- Overall survival benefit reported in the phase III LUNAR study[3]
- **The objective of this analysis was to report the following outcomes for patients treated in the United States post-FDA approval:**
  - **Demographics**
  - **Usage**
  - **Systemic therapy**

METHODS

- Data were collected from the device-manufacturer database for patients with mNSCLC that:
  - Progressed on or after platinum-based therapy
  - Were prescribed TTFields by a certified prescriber
- Baseline patient characteristics and treatment details were collated
- **Usage was calculated for those who had used the device for at least one month**

DISCUSSION AND CONCLUSION

Actionable Take Away Message

- Growth in TTFields uptake was observed after FDA-approval for patients with mNSCLC
- Most patients were treated with an immune-checkpoint inhibitor (ICI)
- Usage patterns appear similar to those observed in the phase III LUNAR study

Future Direction for Research

- Further patterns of use and toxicity data will be important to assess utility and benefit of TTFields with contemporary systemic therapies of mNSCLC in real life clinical practice

REFERENCES

[1]Giladi, M et al. Scientific Reports 2015, doi:10.1038/srep18046

[2]Voloshin, T et al. Cancer Immunology, Immunotherapy 2020, doi:10.1007/s00262-020-02534-7

[3]Leal, T et al. The Lancet Oncology 2023, doi:10.1016/S1470-2045(23)00344-3

RESULTS

- The data cutoff window for this analysis was March 7, 2025
- A total of 91 patients were prescribed TTFields
- 62 patients (68%) were able to start TTFields

Patient and Treatment Characteristics (N=62)

Variable	N (%)
Age at Diagnosis, median (IQR)	66 (60-72)
Sex	
Female	34 (55)
Male	28 (45)
Histology	
Adenocarcinoma	43 (69)
Squamous cell carcinoma	16 (26)
Other	3 (5)
Concurrent systemic therapy	
Docetaxel-based	27 (44)
ICI	32 (52)
Both	3 (5)
ICI used in any treatment line	
Yes	58 (94)
No	4 (6)
TTFields usage, median hours per day (IQR, N=32)	12 (9-16)