A real world multi-center prospective observational study of atezolizumab (Atezo) + bevacizumab (Bev) + carboplatin (CBDCA) + paclitaxel (PTX) (ABCP) in patients (pts) with advanced EGFR-mutated (EGFRm) NSCLC after EGFR-TKIs failure.

Key inclusion criteria:
- Non-squamous non-small cell lung cancer
- Stage IIIb/IV or postoperative recurrence
- Existing EGFR mutations including uncommon mutation
- Previously treated with at least one EGFR-TKI
- Have a plan to receive the ABCP regimen
- Written informed consent

**Background**

- Single-agent programmed death (PD)-1/PD-ligand (L) 1 inhibitors are known to have poor clinical outcomes in pts with advanced EGFR NSCLC.
- Otherwise a subset analysis of the IMpower150 trial suggested the substantial efficacy of ABCP in the same pts’ population.
- We conducted a prospective observational study to evaluate the safety and effectiveness of ABCP in pts with advanced EGFR NSCLC in a real world setting.

**Methods**

- **Trial design** (UMIN Clinical Trials Registry: UMIN000037967)
  - **Key inclusion criteria**
    - Non-squamous non-small cell lung cancer
    - Stage IIIb/IV or postoperative recurrence
    - Existing EGFR mutations including uncommon mutation
    - Previously treated with at least one EGFR-TKI
    - Have a plan to receive the ABCP regimen
    - Written informed consent

**Flow chart**

**Characteristics**

- **Baseline characteristics**
  - N = 139
  - Gender: 50 (43%)
  - Female: 89 (75%)
  - Age: Median (IQR) 69 (60-72)
  - Performance status (ECOG): 0 (51%)
  - 1 (42%)
  - 2 (4%)
  - Smoking history: ex-smoker (64%)
  - never smoker (36%)
  - Smokers: 2% (missing)
  - Stage: IIib or IIII (37%)
  - Post-CRT rec (4%)
  - Post-rec (17%)
  - EGFR mutation: Ex19 deletion (45%)
  - Ex21 L858R (32%)
  - Uncommon or compound (33%)
  - PD-L1 status (22C3): >50% (36%)
  - 1-49% (41%)
  - <1% (39%)
  - Autoimmune disease: Absent (93%)
  - Present (7%)
  - Autimmune disease: 6 (4%)
  - CTx: TKi only (22%)
  - TKi + chemo (32%)
  - TKi + anti-VEGF (25%)
  - TKi + chem + anti-VEGF (3%)
  - Prior therapies: 16 (12%)
  - Malignant pleural effusion: Absent (100%)
  - Present (0%)
  - Brain metastasis: Absent (82%)
  - Present (18%)
  - Liver metastasis: Absent (15%)
  - Present (15%)

**Results**

- **PFS and OS**
  - Median PFS (95%CI): 5.41 months (4.56-6.49)
  - One-year PFS rate (95%CI): 44% (38-51)
  - Median follow-up time (IGR): 5.9 months (2.5-8.3)

**Treatment related adverse events of special interest**

- **Adverse event (N=139)**
  - Leucopenia: 11 (8.6%)
  - Neutropenia: 7 (5.5%)
  - Lymphopenia: 8 (6.3%)
  - Sensory neuropathy: 20 (15.1%)
  - Motor neuropathy: 9 (6.9%)
  - Intestinal pneunmonitis: 2 (1.5%)

**Tumor response**

- **Characteristic**
  - N = 139 (100%)
  - CR: 1 (0.7%)
  - PR: 46 (33%)
  - SD: 56 (40%)
  - Non-CR/Non-PD: 4 (2.9%)
  - PD: 20 (14%)
  - NE: 12 (8.6%)
  - ORR (CR + PR): 47 (34%)

**Conclusion**

ABCP for EGFRm NSCLC pts after EGFR-TKIs failure showed moderate effectiveness with good tolerability, and can be a treatment option in a real world setting.

**Reference and Disclosure**

- Disclosure
  - This study was funded by Chugai Pharmaceutical.