Abstract 6043: Palbociclib in patients with head and neck cancer with *CDKN2A* loss or mutation: Results from the Targeted Agent and Profiling Utilization Registry (TAPUR) Study

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Background:

- TAPUR is a phase II basket study that evaluates anti-tumor activity of commercially available targeted agents in patients (pts) with advanced cancers with specific genomic alterations.
- **Results of a cohort of head and neck cancer (HNC) pts with *CDKN2A* loss or mutation and no *RB* mutations treated with palbociclib are reported.**

Methods:

Study Design:

- **Eligible pts:** Advanced HNC, no standard treatment (tx) options, ECOG PS 0-2, adequate organ function, measurable disease. Tx assigned according to pre-specified matching rules based on genomic tests selected by sites.
- Pts received palbociclib at 125 mg orally once daily for 21 days, followed by 7 days off until disease progression. Tumor evaluations performed at 8 and 16 wks then Q12 wks after treatment initiation.
- **Primary endpoint:** Disease control (DC) defined as objective response (OR) or stable disease (SD) at 16+ wks per RECIST v1.1. **Secondary endpoints:** Progression-free survival (PFS), overall survival (OS), and toxicity per CTCAE. Grade 3-5 adverse events (AEs) or serious adverse events (SAEs) at least possibly related to palbociclib are reported.

Statistical Methods:

- Simon's optimal two-stage design used to test null hypothesis of 15% DC rate vs. alternative of 35%. Power = 85%; 1-sided $\alpha = 10\%$.
- At least 7 of 28 pts must achieve DC to reject null hypothesis and consider treatment worthy of further study.

Palbociclib has anti-tumor activity in heavily pre-treated patients with head and neck cancer with *CDKN2A* loss or mutation.

Future Direction: Additional study is warranted to confirm the efficacy of palbociclib in this patient population.

Results:

- 28 pts enrolled June 2016 to Sept 2019. 20 pts (71%) had *CDKN2A* loss; 8 (29%) had *CDKN2A* mutation.
- **Demographics**: Median age 58 y (range 33-80); 64% male.
- **Clinical characteristics:** 25% PS 0, 68% PS 1, 7% PS 2; 75% received ≥3 prior systemic regimens; 21% received 1-2 prior regimens; 4% received 0 prior regimens. Histology (# pts): squamous cell carcinoma (11); adenocarcinoma (7); poorly differentiated carcinoma (4); esthesioneuroblastoma (3); myxofibrosarcoma (1); acinic cell carcinoma (1); myoepithelial carcinoma (1)
- **Outcomes**: 10 pts (37%) SD16+ and 0 OR (Table 1 and Figure 1). Time on palbociclib among pts with SD16+ is shown in Figure 2.
- **Safety:** 14 pts (50%) had ≥1 SAE or Grade 3-5 AE at least possibly related to palbociclib and consistent with known safety profile.

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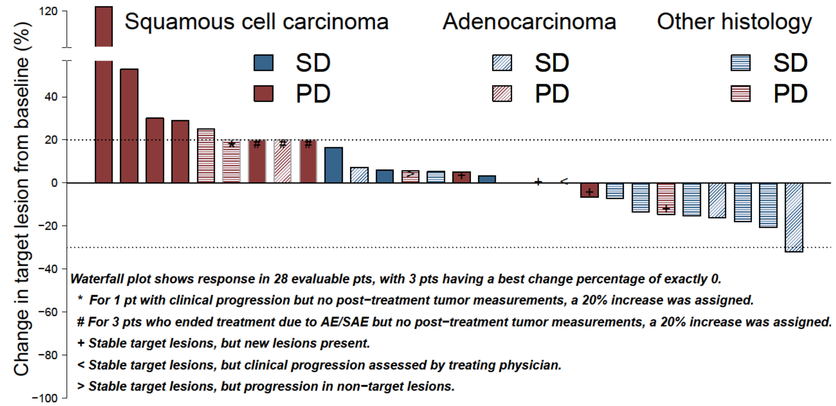
Table 1: Efficacy Outcomes (N=28)	
DC rate, % (95% CI)	37 (21, 50)
OR rate, % (95% CI)	0 (0, 12)
Median PFS, wks (95% CI)	9.4 (8.0, 20.3)
Median OS, wks (95% CI)	42.0 (22.9, 68.1)

Figure 1: Best Percent Change from Baseline in Target Lesion Size (N=28)



Waterfall plot shows response in 28 evaluable pts, with 3 pts having a best change percentage of exactly 0.
** For 1 pt with clinical progression but no post−treatment tumor measurements, a 20% increase was assigned.*
 # For 3 pts who ended treatment due to AE/SAE but no post−treatment tumor measurements, a 20% increase was assigned.
+ Stable target lesions, but new lesions present.
< Stable target lesions, but clinical progression assessed by treating physician.
> Stable target lesions, but progression in non−target lesions.

Figure 2: Time on Treatment in Pts with SD16+ (N=10)