Clinical and Histological Clearance of VP-315: Exploratory Results of an Investigational Non-surgical Immunotherapy in Subjects with Biopsy Proven Basal Cell Carcinoma

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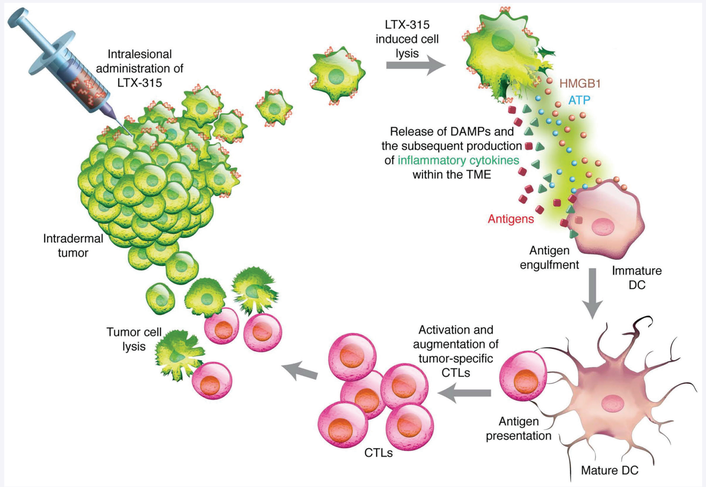
BACKGROUND

- Basal Cell Carcinoma (BCC) is primarily treated with surgical intervention.[1] However, an alternative first-line non-surgical option for patients would be a welcome addition to treatment options, as many patients prefer not to undergo a surgical procedure or may not be surgical candidates.
- VP-315 is a de novo designed intratumorally injected, chemotherapeutic, oncolytic peptide currently under investigation as a non-surgical immunotherapeutic treatment for patients with BCC.
- In addition to its direct oncolytic effect, tumor cell death following VP-315 injection results in the release of danger signals (DAMPs) and a broad repertoire of tumor specific antigens that activates the adaptive immune system to recognize, infiltrate, and attack the tumor cells.[2-4]

Figure 1. VP-315 Dual Mechanism of Action[2]



ATP=adenosine triphosphate; DAMPs=danger-associated molecular pattern molecules; DC=dendritic cell; CTLs=cytotoxic CD8+T lymphocytes; HMGB1=high mobility group box protein 1; TME=tumor microenvironment.

LTX-315 is being studied as VP-315 in BCC.

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- We previously reported the primary objective results from Part 1 of a 2 Part study assessing the safety of ascending doses (2-8 mg) of VP-315 given intratumorally to BCC lesions.[5]
- VP-315 demonstrated a promising safety and tolerability profile with no dose-limiting toxicities or serious adverse events, only expected cutaneous reactions, observed over the entire dose range.

OBJECTIVE

- The exploratory objective of Part 1 of the study was to evaluate the antitumor efficacy of VP-315, determined by clinical and histological clearance of treated lesions.

METHODS

- Ten subjects received once daily dosing of ascending doses (2-8 mg) of VP-315, administered intratumorally in up to 2 biopsy-proven BCC lesions for up to 6 treatments over a 2-week period.
- Six of these 10 subjects (1 lesion in each subject) were treated at the 8 mg dose.
- Post-treatment clinical assessment and excisions were performed at Day 49 (Range 35-70), followed by histological evaluation.

RESULTS

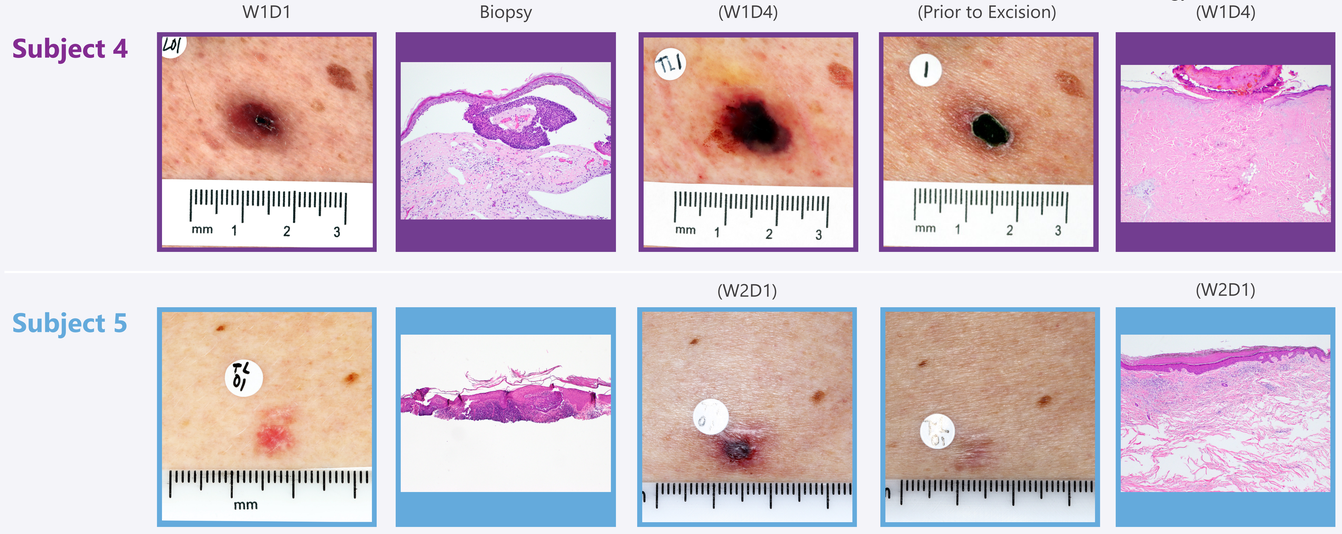
- Full tumor necrosis was observed within 2 weeks of initial dosing, in all 6 subjects/6 BCC lesions treated with the 8 mg dose of VP-315.

Table 1. Phase 2, Part 1 Study Results

Subject #	Body Lesion Location	Full Necrosis Observed	Residual Tumor (%)
1	R Upper Arm (R Clavicle)	YES	0% Residual Tumor
2	Left arm/Forearm	YES	70% Residual Tumor
3	Back LL	YES	0% Residual Tumor
4	Back LR	YES	0% Residual Tumor
5	Back LL	YES	0% Residual Tumor
6	Chest UL	YES	5% Residual Tumor

- Importantly, there was consistent clinical and histological clearance of these lesions observed by Day 49 post-treatment, with 4 of 6 subjects (67%) demonstrating complete BCC clearance.
- Necrosis is a suggestive early indicator of tumor elimination evidenced by 4 of 6 subjects achieving 0% residual tumor after treatment with VP-315.

Figure 2. Clinical and Histological Clearance Results



Subjects 4 and 5 presented with BCC and received three consecutive daily doses of 8 mg VP-315. Complete lesion clearance achieved.

** Visual confirmation of necrosis or a DLT resulted in termination of dosing.*

CONCLUSIONS

- These early encouraging results from Part 1 support VP-315 as a potential, first-line non-surgical therapeutic approach for treatment of BCC.
- Optimization of the 8 mg dosing regimen is currently under investigation in Part 2 of the study.

References

1. American Academy of Dermatology Association (AAD). Skin cancer types: Basal cell carcinoma diagnosis and treatment. Updated April 28, 2023. Accessed September 18, 2023. https://www.aad.org/public/diseases/skin-cancer/types/common/bcc/treatment. **2.** Camilio KA, et al. *Oncoimmunology*. 2014;3(6):e29181. **3.** Sveinbjørnsson, B et al. *Future Med Chem. 2017;9(12):1339-44.* **4.** Eike LM, et al. *Oncotarget.* 2015;6(33):34910-23. **5.** Bhatia N, et al. Congress of Clinical Dermatology; 2023.

Disclosures

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