

Efficacy of ¹⁷⁷Lu-DOTATATE in Neuroendocrine Cancer of the Cervix Resistant to Conventional Systemic Therapies

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INTRODUCTION

Neuroendocrine carcinomas (NECs) are aggressive tumors with poor outcomes ¹. While ¹⁷⁷Lu-DOTATATE is effective in well-differentiated NETs ², its role in NECs is uncertain.

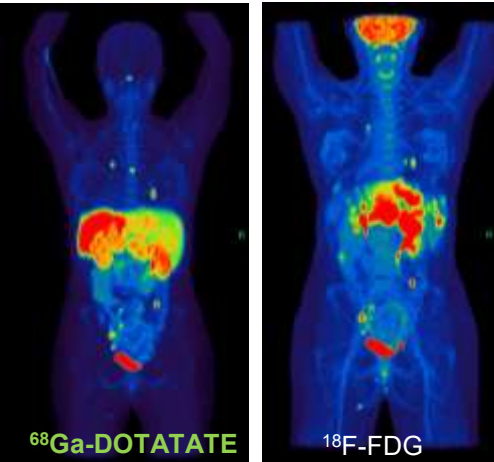
HYPOTHESIS


NEC cervix demonstrating overexpression of somatostatin receptors can benefit from PRRT

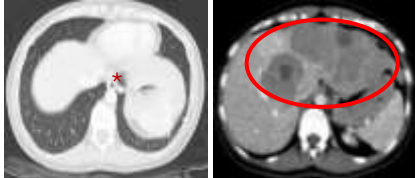
METHOD

- Retrospective case reports (Pt A and B)
- Both patients had progressive distant metastases despite 3 lines of systemic therapy with limited treatment options
- Case discussed at multidisciplinary case conference
- The consensus recommendation to perform ⁶⁸Ga-DOTATATE PET/CT
- Following confirmation of SSTR overexpression, patients were treated with ¹⁷⁷Lu-DOTATATE under compassionate access

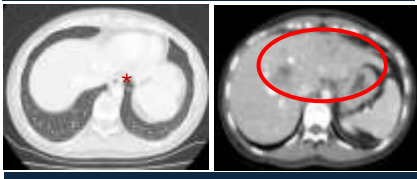
Patient A







Pre-PRRT CT



Radiological response post C1

Baseline molecular imaging
Krenning score 4 ⁶⁸Ga-DOTATATE
No discordant uptakes on ¹⁸F-FDG

CONCLUSIONS

- Neuroendocrine carcinoma of the cervix can overexpression SSTR receptors.
- ¹⁷⁷Lu-DOTATATE provided clinically meaningful symptom response, duration of clinical benefit, supported by objective response.
- Dosimetry data support meaningful radiation dose absorbed similar in the order of 50-70 Gy over 4 cycles
- UNIQUE protocol will be used to prospectively document outcomes for this patient population including genomic profile, molecular imaging and dosimetry

Outcomes	Patient A	Patient B
Cumulative radiation absorbed dose	No dosimetry data	Hepatic lesions: 76.9 Gy Extra-hepatic lesions: 52.5 Gy Kidneys (each): 18.3 Gy Bone marrow: 0.2 Gy
Radiologic response	Improvement of lung metastases, partial response to liver and nodes	Improvement in liver, nodal, pleural, pulmonary and bony metastases
Adverse events	G2 thrombocytopenia	No significant adverse events
Clinical outcomes	Symptoms improvement e.g. Abdominal pain, nausea and vomiting	Symptoms improvement e.g. Rib pain, appetite and sleeping
rPFS	Approx. 3 months post first PRRT	Approx. 8 months post first PRRT
Survival	28 months post first diagnosis 7 months post first PRRT	79 months post first diagnosis 10 months post first PRRT

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1 Tempfer CB et al. Neuroendocrine carcinoma of the cervix: a systematic review of the literature. BMC Cancer. 2018 May 4;18(1):530.

2 Strosberg J et al. NETTER-1 Trial Investigators. Phase 3 Trial of ¹⁷⁷Lu-Dotatate for Midgut Neuroendocrine Tumors. N Engl J Med. 2017 Jan 12;376(2):125-135