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Eneboparatide, a novel PTH1 receptor agonist, induces rapid reduction and normalization of urinary calcium in hypoparathyroid patients

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CONFLICT OF INTEREST

Michel OVIZE, MD, PhD

x **I have the following potential conflicts of interest to report**:

- ☐ Research Contracts
- ☐ Consulting
- x Employment in the Industry (Senior Medical Director of AMOLYT Pharma)
- ☐ Stockholder of a healthcare company
- ☐ Owner of a healthcare company
- ☐ Other(s) – *please include details*

No commercial logos or product names to be included please.

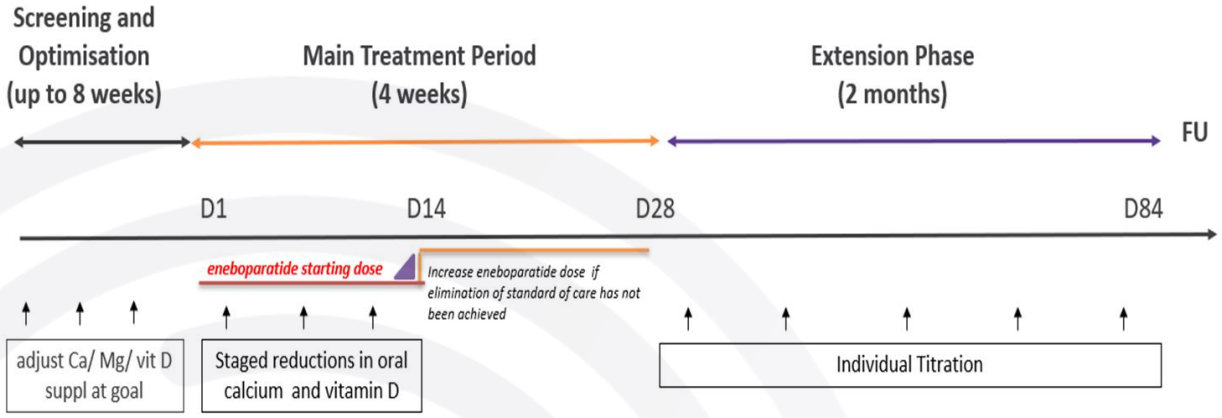
☐ **I declare that I have no potential conflict of interest.**

OPEN-LABEL, MULTICENTER, PHASE 2 STUDY

Mechanism of action / Properties

Eneboparatide is a 36-AA peptide specifically designed to have high affinity for activate the R° conformation of the PTH1 receptor
Eneboparatide has short half life (<1hr) and sustained pharmacodynamic effects

Study protocol design in hypoparathyroidism patients



- Target range of 7.8 to 9.0mg/dL for albumin-adjusted serum calcium
- Starting dose of eneboparatide:
  - Cohort 1 (n=12): 20µg/day up to 60µg/day
  - Cohort 2 (n=16): 10µg/day up to 80µg/day

Study population main baseline characteristics

	Cohort 1 N=12	Cohort 2 N=16
Mean age, yrs (SD), min-max	63 (10), 44-72	54 (11), 26-72
Female, n (%)	9 (75%)	12 (75%)
Post-menopausal women, n (%)	7 (58%)	7 (44%)
Etiology of hypoparathyroidism **Post-surgery, n (%)** **Idiopathic, n (%)** **Genetic, n (%)**	 10 (83.3%) 2 (16.7%) -	 13 (81.3%) 2 (12.5%) 1 (6.3%) (HRD)
Mean oral vitamin D dose, ug/day, min-max	0.67, 0.25-1	0.60, 0.25-1
Mean oral calcium dose, mg/day, min-max	1,625 (1,000-3,500)	1,688 (1,000-7,800)

In C1, the majority of patients remained at dose 20µg, only a few had their dose titrated up to 60µg.
In C2, the majority of patients were rapidly titrated to 20µg and then up to 80µg.

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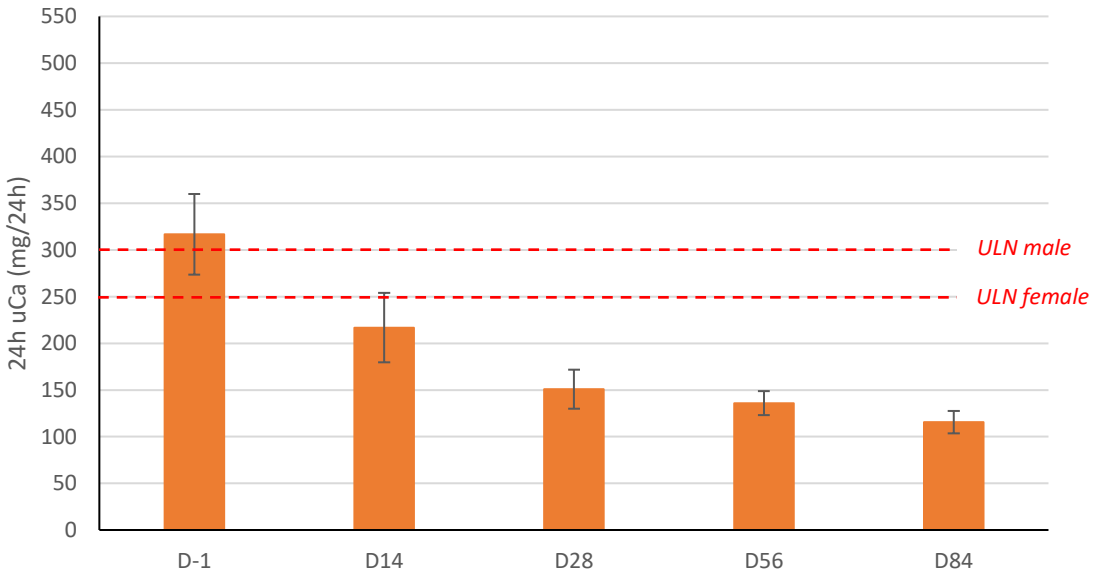
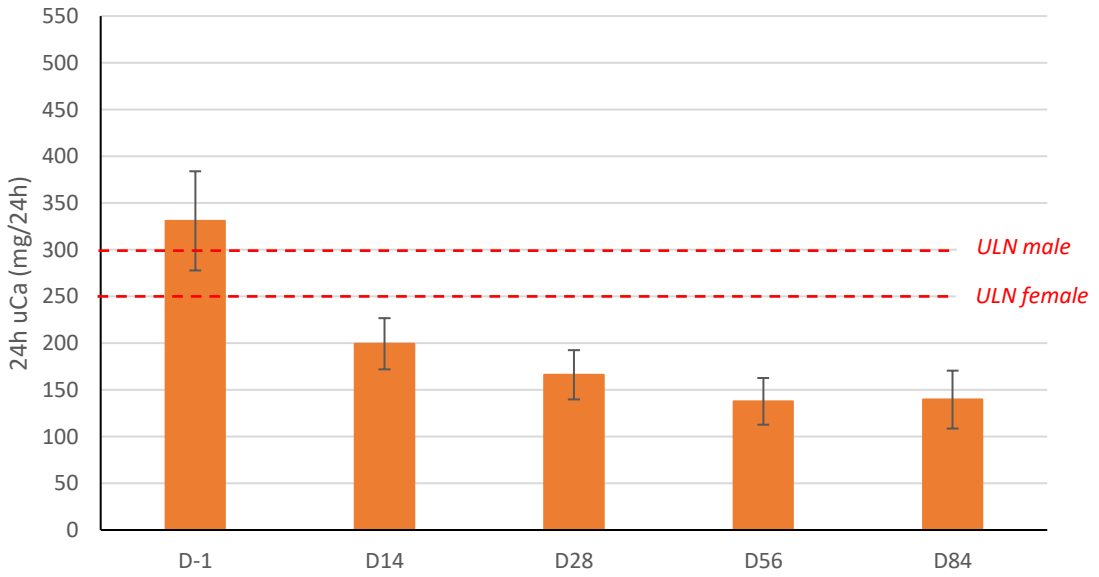
24-HOUR URINARY EXCRETION OF CALCIUM

Cohort 1 (n=10)



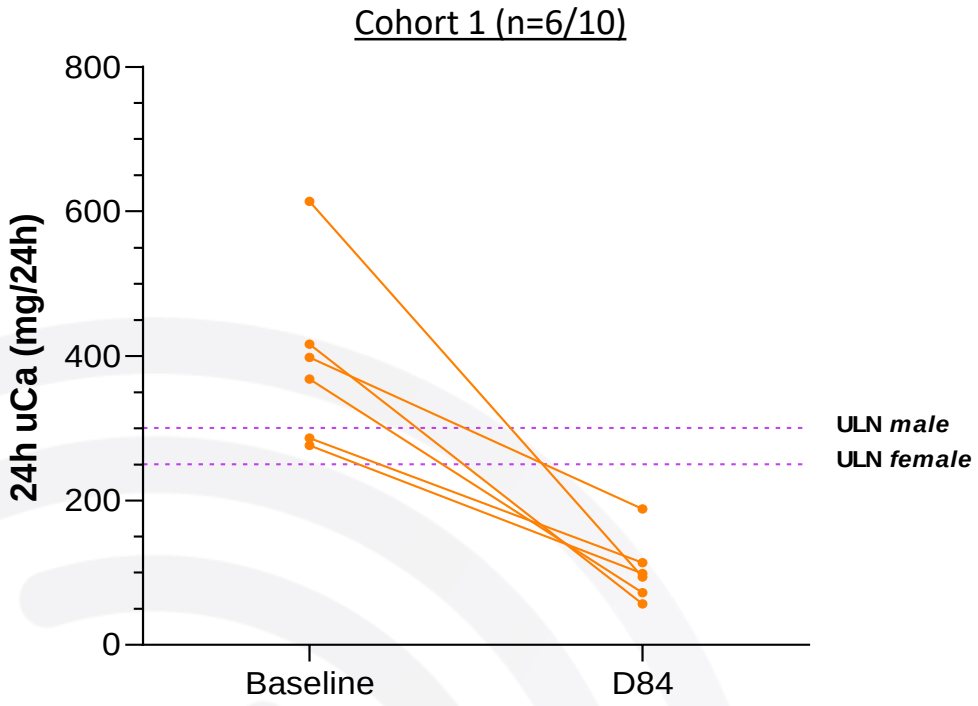
Cohort 2 (n=14)

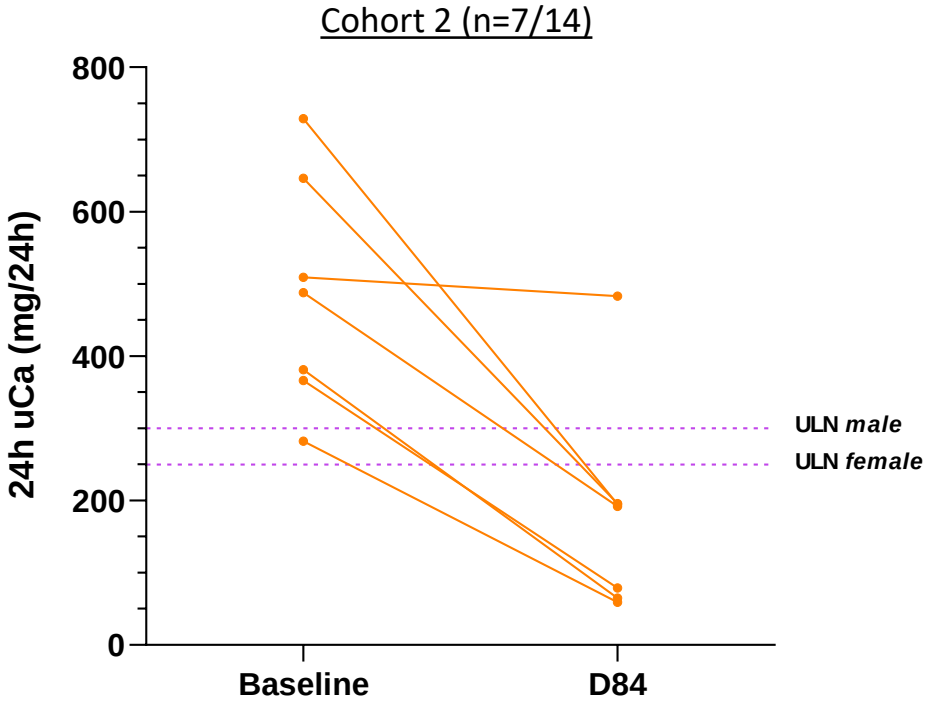


- In the two cohorts (while mean albumin-adjusted serum calcium was maintained within the target range of 7.8 to 9.0 mg/dL) eneboparatide decreased mean urinary excretion of calcium as soon as 2 weeks after the onset of treatment.
- 24hr-urinary calcium excretion continued to decrease until the end of the 3-month treatment period.

AMOLYT PHARMA

PATIENTS WITH HYPERCALCIURIA UNDER CONVENTIONAL THERAPY





In all (but one) patients with hypercalciuria under conventional therapy, eneboparatide induced the normalization of 24hr-urinary calcium excretion

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SUMMARY

In most patients, a 3-month treatment with eneboparatide allowed:

- the withdrawal of active vitamin D and oral calcium supplements
- the maintenance of stable serum calcium levels
- **the normalization of urinary excretion of calcium**

A multicenter, randomized, placebo-controlled, double-blind phase 3 study is underway

CALYPSO STUDY

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