Correlation between SNOT-22 and cardinal symptom composite scores in CRS

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DISCLOSURES

- Brent A. Senior was the Chair of the Data Monitoring Committee for the Phase II LANTERN study and is a consultant of Lyra Therapeutics, Inc. and a consultant for Stryker. He is also Vice President for Development and Strategy for the American Rhinologic Society.

BACKGROUND

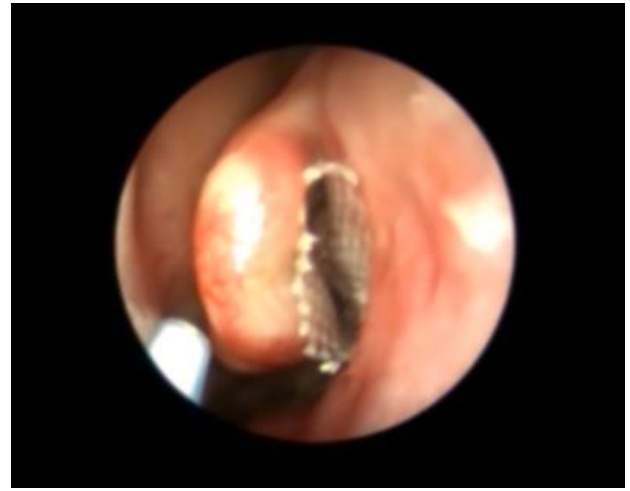
- SNOT-22 is a routinely used CRS-specific quality of life instrument; however, it has not been accepted as a primary endpoint for evaluating response to treatments in development for CRS
- Clinical studies for CRSwNP have used change in nasal polyp score and change in nasal congestion score as primary efficacy endpoints
  - Not applicable for CRSsNP (70-90% of CRS patients[1])
- Composite score of the 3 most prevalent CRS cardinal symptoms (3CS; nasal blockage, nasal discharge, facial pain/pressure) is being used as primary efficacy endpoint in multiple pivotal Phase III trials of treatments in development for CRS

1) Cho, SH et al. J Allergy Clin Immunol Pract. 2016;4(4):575–582

LYR-210 FOR CHRONIC RHINOSINUSITIS

LYR-210 is in development for patients with CRS who failed previous medical management

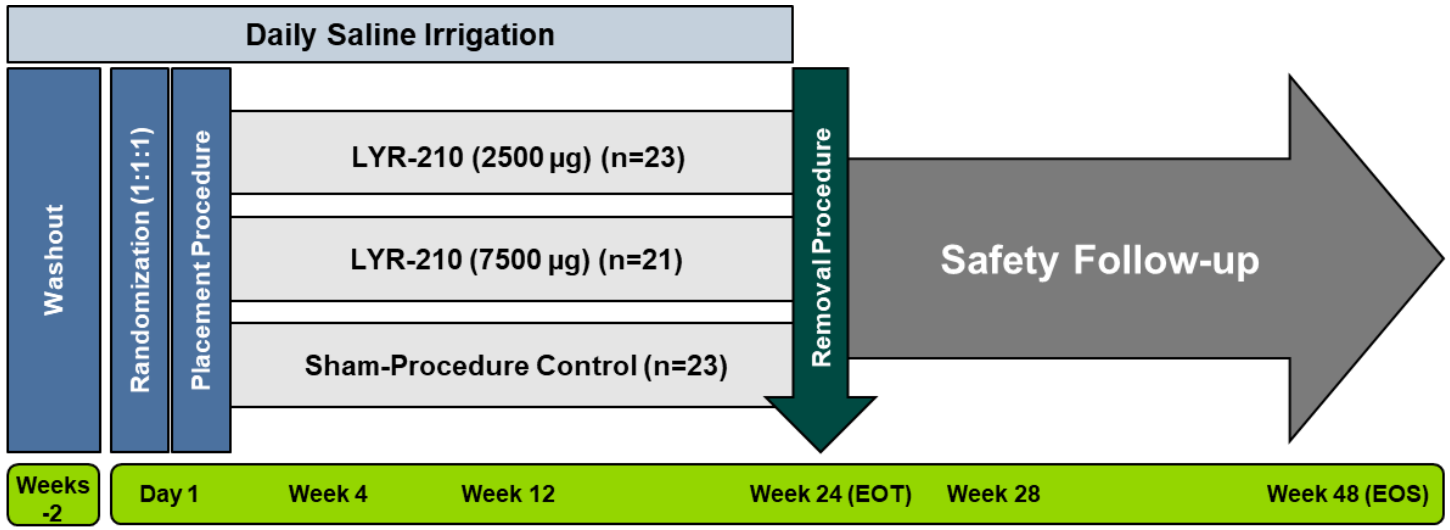
- Bioresorbable matrix formulated to release mometasone furoate at a steady rate continuously for up to 24 weeks
- Self-expanding properties allow LYR-210 to dynamically conform to the middle meatus
- Straightforward office-based placement and removal that is well-tolerated by patients



Cervin A, et al. *Int Forum Allergy Rhinol*. 2022;12(2):147-159

LANTERN STUDY DESIGN

Multicenter, patient-blinded, randomized, controlled, dose-ranging Phase II study



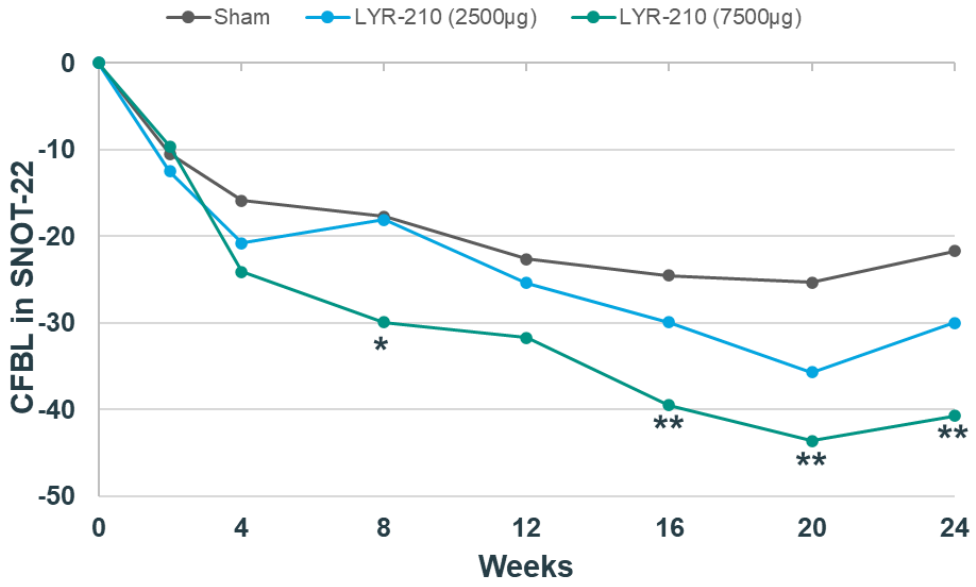
- **Study Population:** Adults with CRS who failed previous medical management and have not undergone FESS
- **Primary Endpoint:** Change from baseline in the composite score of the 4 cardinal symptoms of CRS at Week 4*
- **Secondary Endpoints:**
  - SNOT-22
  - Individual Cardinal Symptoms
  - Ethmoid Opacification (MRI)
  - Time to first rescue treatment
  - Adverse events

Cervin A, et al. *Int Forum Allergy Rhinol*. 2022;12(2):147-159. EOT = End of Treatment; EOS = End of Study; FESS = functional endoscopic sinus surgery. *CRS cardinal symptoms are nasal blockage, facial pain/pressure, nasal discharge, and olfactory loss

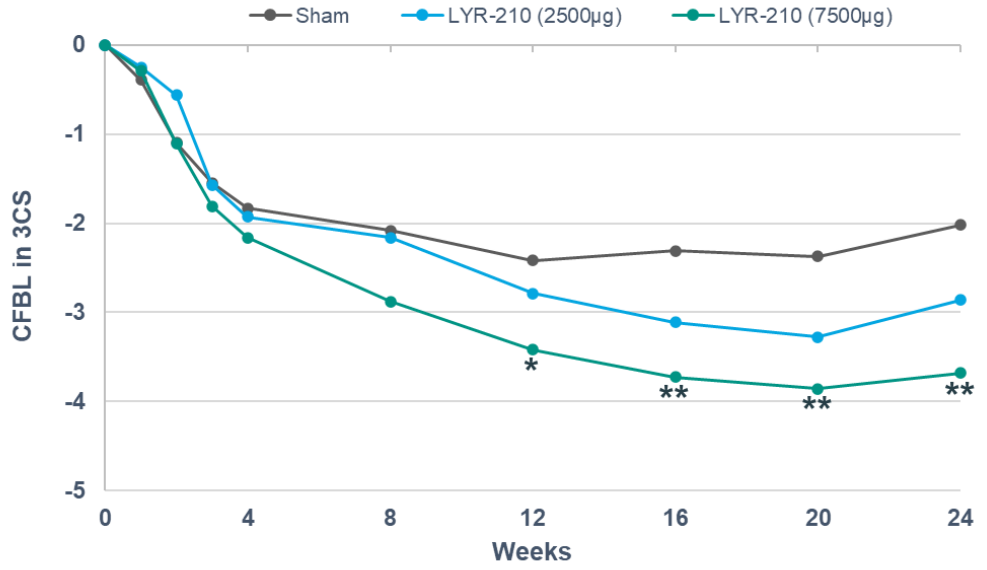
PREVIOUSLY REPORTED LANTERN STUDY RESULTS

- Both doses of LYR-210 demonstrated safety and were well-tolerated
- LYR-210 (7500µg) achieved statistically significant symptom improvements at Week 24
  - 19-point improvement over Control in SNOT-22
  - 1.6-point improvement over Control in 3CS composite scores

SNOT-22 Total Score

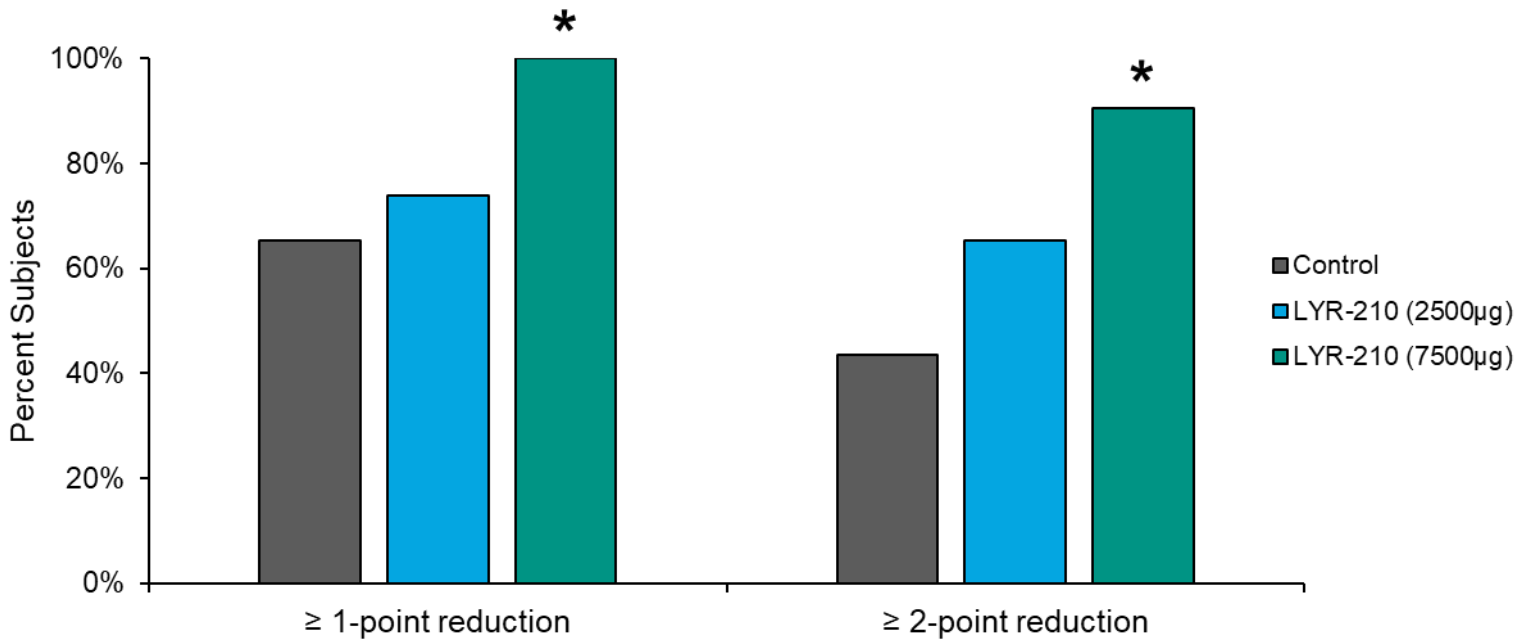


Composite of the 3 Cardinal Symptoms (3CS)
(nasal blockage, nasal discharge, facial pain/pressure)



Cervin A, et al. *Int Forum Allergy Rhinol*. 2022;12(2):147-159. 3CS Composite Score analysis was not a pre-specified endpoint. CFBL = change from baseline; P values are 1-sided vs. control. *p<0.05, **p<0.01.

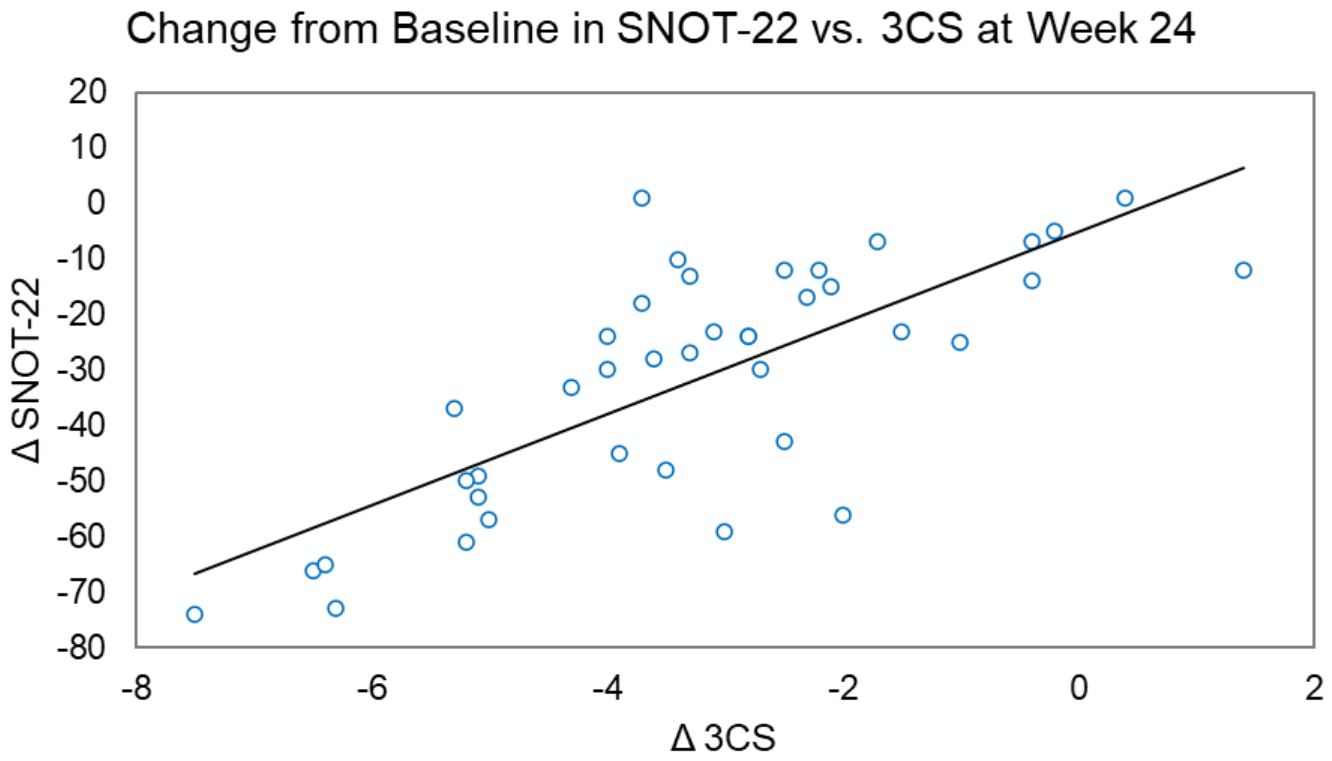
LANTERN STUDY: IMPROVEMENT IN 3CS COMPOSITE SCORES AT WEEK 24



3CS Scale: 0-9 points. Proportion of subjects with a ≥ 1-point or ≥ 2-point improvement in 3CS composite score at week 24. P values are 1-sided vs. Control; *p<0.01.

LANTERN STUDY: CORRELATION BETWEEN SNOT-22 TOTAL & 3CS COMPOSITE SCORES AT WEEK 24

The change from baseline in SNOT-22 total score and 3CS composite score at Week 24 are strongly (r=0.76) and significantly (p<0.0001) correlated

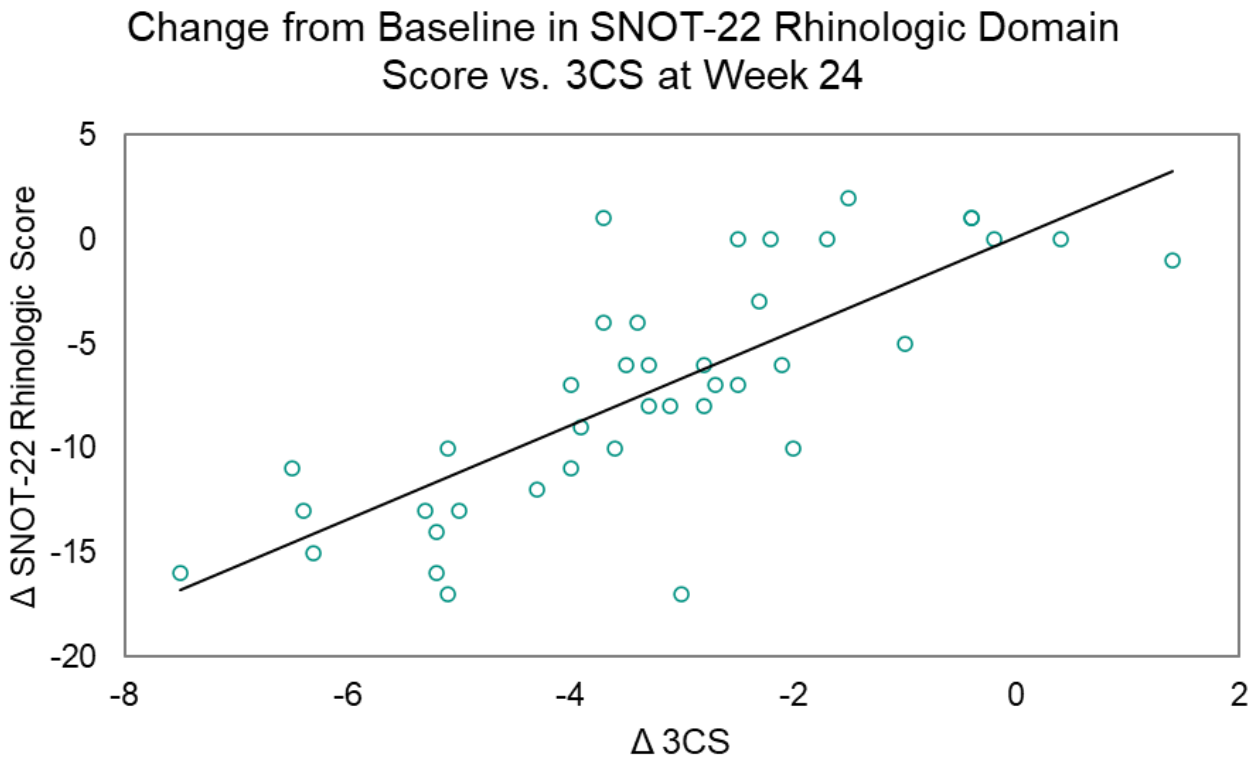


1-point improvement in 3CS composite score correlates to an 8.2-point improvement in SNOT-22 total score at Week 24

Change from baseline in SNOT-22 Total Score vs. 3CS composite score at Week 24. N=40 subjects.

LANTERN STUDY: CORRELATION BETWEEN SNOT-22 RHINOLOGIC DOMAIN & 3CS COMPOSITE SCORES AT WEEK 24

The change from baseline in SNOT-22 rhinologic domain score and 3CS composite score at Week 24 are strongly (r=0.78) and significantly (p<0.0001) correlated



1-point improvement in 3CS composite score correlates to a 2.3-point improvement in SNOT-22 rhinologic domain score at Week 24

Change from baseline in SNOT-22 Rhinologic Domain Score vs. 3CS composite score at Week 24. N=40 subjects.

CONCLUSIONS

- Improvement in 3CS composite scores at Week 24 appeared to be dose-dependent, with LYR-210 (7500µg) achieving statistical significance compared to Control in the LANTERN study
- Change from baseline in 3CS composite score strongly and significantly correlates with the change in SNOT-22 total and rhinologic domain scores at Week 24 in LANTERN study subjects
- In this study, the 3CS composite score provided a reliable and clinically relevant assessment of the impact of treatment on CRS
- 3CS composite score is being assessed as a primary endpoint in two ongoing Phase III ENLIGHTEN studies of LYR-210 (7500µg)
- LYR-210 (7500µg) may be a promising treatment option for surgically naïve patients with CRS who have failed previous medical management