Long-acting corticosteroid matrices improve CRS cardinal symptoms

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Session: Chronic Rhinosinusitis Histology and Treatment

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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

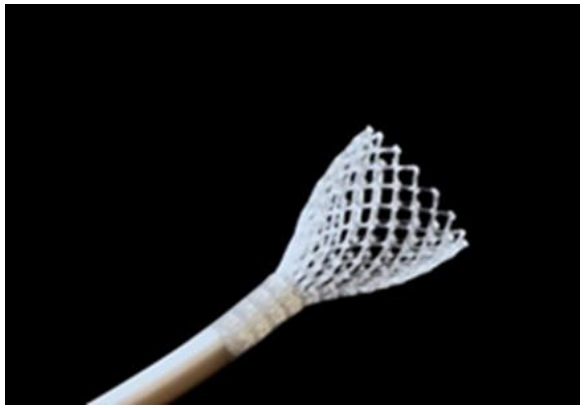
- Chronic rhinosinusitis (CRS) is a disorder that significantly impacts the quality-of-life of patients
  - Intranasal corticosteroids as first line therapy
- Estimated that up to 50% of CRS patients remain uncontrolled despite medical management[1], *indicating a need for better treatment options*
- Composite score of the 3 most prevalent CRS cardinal symptoms (3CS; nasal blockage, nasal discharge, facial pain/pressure)
  - Provides direct measure of CRS burden
  - Currently used as primary efficacy endpoint in multiple pivotal Phase 3 trials of treatments in development for CRS

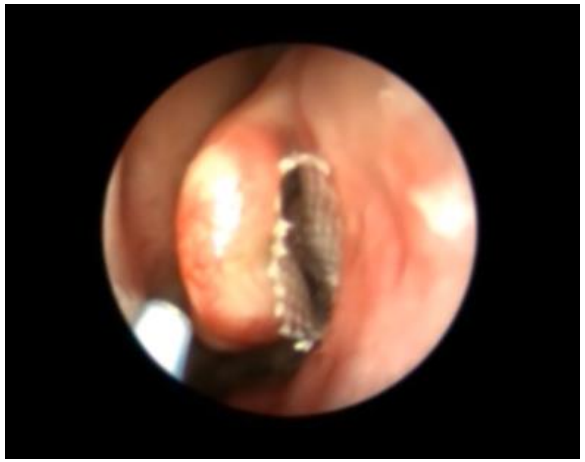
1) Young LC et al. *Allergy Rhinol (Providence)*. 2012;3(1):e8-e12.

LYR-210 FOR CHRONIC RHINOSINUSITIS

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

- Bioresorbable matrix formulated to provide steady daily dosing of mometasone furoate continuously over 24 weeks
- Administered bilaterally in an in-office procedure using endoscopic guidance
- Designed to conform to the middle meatus and adjust as tissues remodel
- Placement and removal procedure is well-tolerated by patients

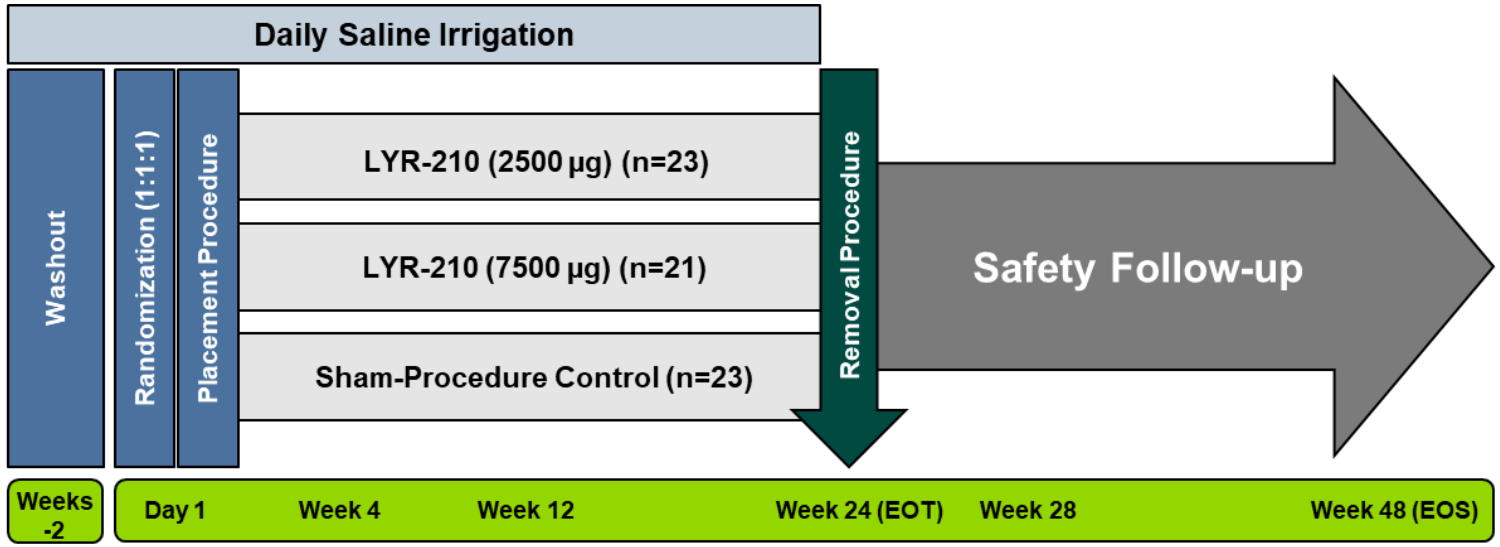




Cervin A, et al. *Int Forum Allergy Rhinol*. 2022;12(2):147-159

LANTERN STUDY DESIGN

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

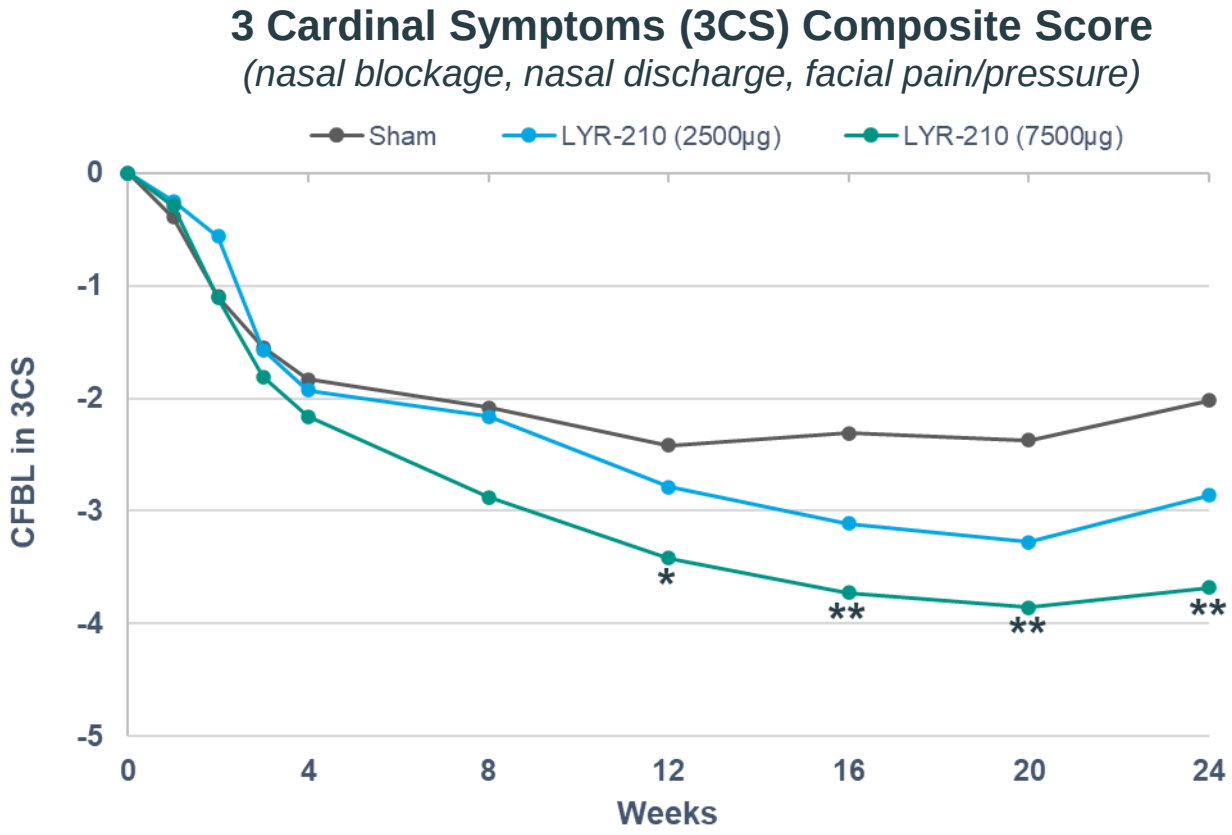


- **Study Population:** Adults with CRS who failed previous medical management and have not undergone FESS
- **Primary Endpoint:** Change from baseline in the composite score of the 4 cardinal symptoms of CRS at Week 4*

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

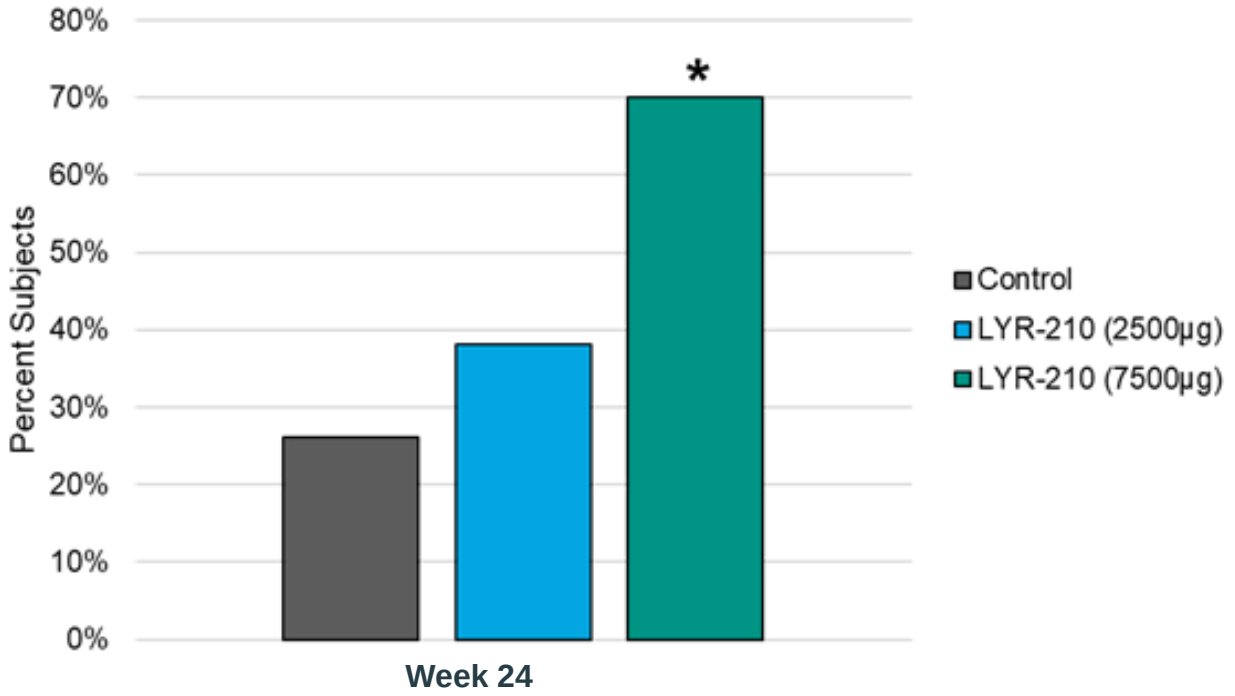
SUMMARY OF PREVIOUSLY REPORTED LANTERN STUDY RESULTS

- LYR-210 was well tolerated at both 7500µg and 2500µg doses and AEs were comparable to control
- LYR-210 (7500µg) achieved statistically significant and clinically meaningful benefit in:
  - 4CS composite score change at Week 24
  - SNOT-22 change at Week 24
  - Need for rescue treatment through Week 24
  - Ethmoid opacification (MRI) change at Week 24



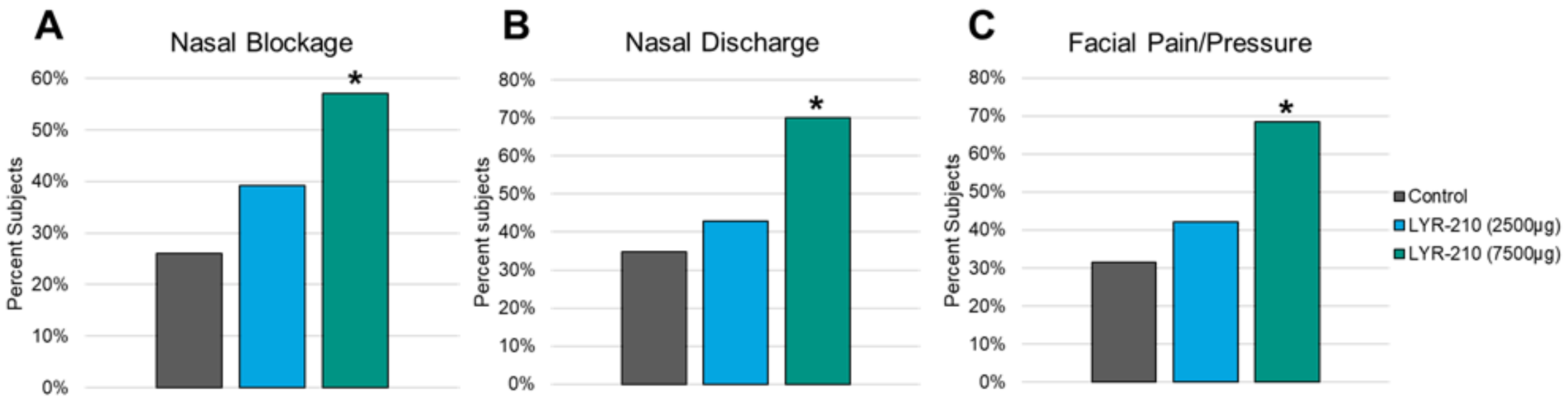
Cervin A, et al. *Int Forum Allergy Rhinol*. 2022;12(2):147-159. Change from baseline (CFBL) in 3CS composite score was evaluated in a post-hoc analysis of the LANTERN study. P values are 1-sided vs. control. *p<0.05, **p<0.01.

IMPROVEMENT IN 3CS COMPOSITE SCORES FROM MODERATE OR SEVERE AT BASELINE TO NONE OR MILD AT WEEK 24



Weekly 3CS composite scores were categorized as: none [0-1.5), mild [1.5-4.5), moderate [4.5-7.5), and severe [7.5-9]. LYR-210 (7500µg) (n=1) and LYR-210 (2500µg) (n=2) were excluded from analysis, as their 3CS composite score was Mild at baseline. P values are 1-sided vs. Control. *p=0.005.

IMPROVEMENT IN 3CS SCORES FROM MODERATE OR SEVERE AT BASELINE TO NONE OR MILD AT WEEK 24



Weekly scores of individual symptoms were categorized as: none [0-0.5), mild [0.5-1.5), moderate [1.5-2.5), and severe [2.5-3]. LYR-210 (7500µg) (n=1) and LYR-210 (2500µg) (n=2) were excluded from analysis in (B), and LYR-210 (7500µg) (n=2) and LYR-210 (2500µg) (n=4), and Control (n=4) were excluded from analysis in (C), as their nasal discharge or facial pain/pressure was Mild at baseline. P-values are 1-sided vs. control. *p<0.05.

CONCLUSIONS

- LYR-210 (7500µg) significantly improved the severity of nasal blockage, nasal discharge, and facial pain/pressure when analyzed as individual and composite symptom scores in the LANTERN study, achieving None or Mild at week 24 in some subjects
- LYR-210 demonstrated a dose response in improving 3CS severity in the LANTERN study
- Study Limitation: Definitions of the severity categories (none, mild, moderate, and severe) for the 3CS are not yet established
- LYR-210 (7500µg) is being assessed in two ongoing Phase III ENLIGHTEN studies with the 3CS composite score at week 24 as the primary endpoint
- LYR-210 (7500µg) may be a promising treatment option for surgically naïve patients with uncontrolled CRS