Post-Hoc Analysis of Suprachoroidal Injection Experience for Non-Infectious Uveitis

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Purpose

- To analyze procedural characteristics of suprachoroidal injections (SCIs) using the SCS Microinjector® from data in two uveitis trials.
- The SCS Microinjector reliably delivers drug to the suprachoroidal space (SCS), an alternative administration route for chorioretinal diseases.
- SCIs were first attempted with a 900µm length needle and switched to 1100µm length if required. Correlations between needle length, baseline patient characteristics, and physician experience, via survey, with the device are presented.

Methods

- Post hoc analyses were performed to assess the relationship between needle length for baseline SCI and patient characteristics.
- Univariate analysis was conducted with Pearson chi-square analysis for categorical variables and the biserial correlation for continuous variables.
- Multivariate logistical regression was run to confirm univariate findings.
- Furthermore, a user experience survey was completed to evaluate real-world SCI experience in one trial.

Results

- Of the 133 total baseline SCIs:
  - 74% were successfully completed with the 900µm needle.
  - remaining 26% with the 1100µm needle.
- Univariate analysis revealed no relationship between needle length utilized, gender, lens status, uveitis sub-type, disease course or onset.
- Multivariate logistical regression verified univariate analysis demonstrating the potential impact of age, disease duration and SCI quadrant on needle length.

- Disease duration was statistically correlated with needle length:
  - 91% of injections were completed with the 900µm needle for Limited (≤ 3 months) and 70% for Persistent (> 3 months).
  - Age was moderately inversely correlated with needle length
  - Injection quadrant was statistically related:
    - 82% of injections administered superotemporally were completed with the 900µm needle compared to 45% of injections administered superonasally.

Conclusions

- Study analyses are limited by retrospective nature and relatively small sample size
- However, few patient characteristics were found to correlate with needle length, indicating the procedure can be completed for the majority of patients with the 900µm needle
- SCIs with the SCS Microinjector have potential to reliably and repeatably deliver drugs for chorioretinal diseases in an in-office setting.
- Survey results suggest that most physicians doing intravitreal treatments will be able to transition to SCIs relatively easily

Figure 1: Schematic representation of suprachoroidal CLS-TA delivery

Figure 2: Injection Quadrant

82% of injections administered superotemporally were completed with the 900 µm needle compared to 45% of injections administered superonasally.

Figure 3: Uveitis Disease Duration

91% of injections were completed with the 900 µm needle for Limited (≤ 3 months) and 70% for Persistent (> 3 months).

Figure 3: User Survey Results

In the user experience survey, over 80% of the physicians responded that SCIs presented no new challenges compared to other types of injections.

REFERENCES