

# Stabilized Cysteamine 5% Cream for the Treatment of Senile Lentigo

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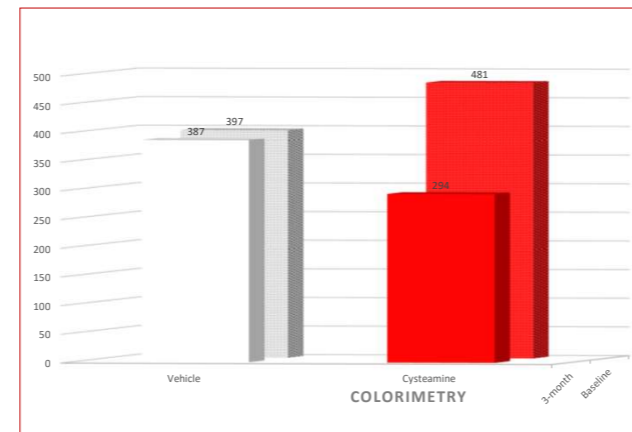
## Why focus on Lentigo ?

- Solar lentigines are macules and hyperpigmented patches ranging from a few millimeters to a few centimeters.<sup>11</sup>
- The prevalence of solar lentigo is associated with aging, in which 90% of white-skinned people over the age of 60 years have these lesions.<sup>12</sup>
- In 2008, a study shows the impact on Quality of life of lentigo : >40% of 105 US patients with lentigo were embarrassed because of their skin.
- Topical depigmenting products are usually ineffective for the treatment of lentigines. Lentigines are also resistant to Triple Combination therapy, as indicated by Dr Kligman.<sup>14</sup>

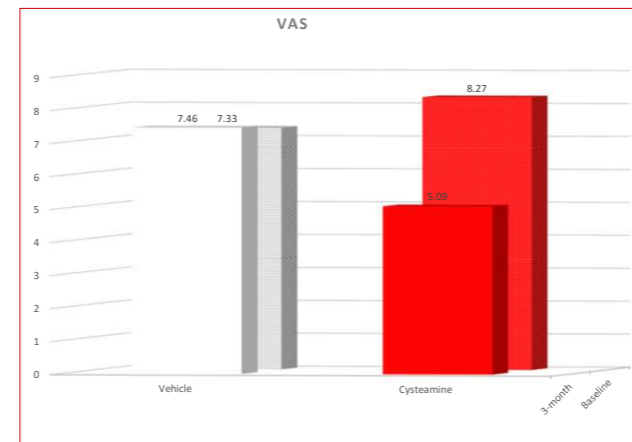
## What is Cysteamine ?

- Cysteamine is an aminothiols derived from coenzyme A degradation in mammalian cells and is naturally found in human breast milk.<sup>1</sup> Serving as intracellular antioxidant, Cysteamine has anti-carcinogenic effect.<sup>1</sup>
- Chavin first discovered the potent depigmenting effect of Cysteamine in vivo in 1966.<sup>2</sup> But its topical use was historically prohibited due to a very offensive odor and rapid oxidation.
- Scientis developed in 2012 a unique stabilization method that allowed the use of Cysteamine topically.
- Multiple studies have demonstrated the significant efficacy in the treatment of melasma<sup>3-8</sup> and PIH<sup>10</sup>, with comparable or better results than Hydroquinone<sup>5-6</sup>, Kligman's Formula<sup>7-8</sup> and mesotherapy with Tranexamic acid.<sup>9</sup>
- Cysteamine has a broad action in the regulation of melanogenesis:
  - Enzymatic effect: inhibition of tyrosinase and peroxidase.
  - Chemical effect: chelation of mineral ions, preventing Fenton-type reactions.
  - Antioxidant: lightening of dark melanin in stratum corneum.
  - Cascade reaction: increase of intracellular glutathione, amplifying natural depigmenting effects.

## Results with Cysteamine 5%



**40% reduction in colorimetry ( $p < 0.002$ ) vs 2% reduction in non-treatment arm ( $p < 0.405$ )**



**40% reduction In VAS ( $p < 0.001$ ) vs 2% reduction in non-treatment arm  $p < 0.245$ )**



Subject 1 Baseline



week-12



Subject 2 Baseline



week-12

## Material & Methods

- Randomized, double-blinded; 30 subjects with dorsal hand lentigines
- Cyspera® Cysteamine 5% from Scientis vs vehicle, 15-minutes daily short contact; Sunscreen daily
- Colorimetry and visual analogue scale (VAS) at baseline, 4-weeks, 8-weeks and 12-weeks
- Mean age 49.5; Gender 8:22 M:F distributed equally

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## Conclusion

- Significant improvement of senile lentigos after 12 weeks
- 40% reduction of colorimetry
- Topical Cysteamine (Cyspera®) is one of the first monotherapy treatments demonstrating significant efficacy in reduction of dorsal hand lentigines by all evaluation methods.

## References

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