

primary studies - published, non RCT

# The effects of self-hypnosis for children with cystic fibrosis: a pilot study.

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## Participants

9 individuals with CF. Each individual served as their own control with measurements made in the nostril to be treated before AdCFTR administration, and in the contralateral untreated nostril.

## Interventions

received 2 x 10<sup>(5)</sup> to 2 x 10<sup>(8.5)</sup> plaque forming units of a replication-deficient, recombinant adenovirus vector containing a normal copy of the CFTR cDNA (AdCFTR) to the epithelium of one nostril.

## Outcome measures

Measurements made included: baseline electrical potential difference (PD) between the surface of the nasal epithelium and the interstitial fluid, change in PD in response to amiloride, which inhibits apical Na<sup>+</sup> channels, and change in PD in response to isoproterenol in a low Cl<sup>-</sup> solution, a measure of cAMP-regulated Cl<sup>-</sup> conductance. The functional integrity of the epithelium was evaluated by the PD response to ATP.

## Main results

On the average, in the treated nostril over 2 weeks after the local administration of the adenovirus vector compared to measurements made in the same nostril before treatment, baseline PD decreased toward normal (-53.3 +/- 4.0 to -34.6 +/- 3.4, p = 0.01), response to amiloride decreased toward normal (36.9 +/- 4.7 to 19.7 +/- 3.0, p = 0.02), and response to low Cl<sup>-</sup> and isoproterenol increased toward normal (-4.5 +/- 1.5 to -9.1 +/- 2.1, p = 0.05). There were no changes in response to ATP (-15.3 +/- 2.7 to -15.8 +/- 1.9, p = 0.39), suggesting that the epithelium remained functionally intact. Importantly, there were no significant changes in measurements made in the untreated nostril.

## Authors' conclusions

While limited to the nasal epithelium, these data suggest that an adenovirus vector can safely deliver sufficient CFTR cDNA function to improve the abnormal CF bioelectric phenotype.

<https://pubmed.ncbi.nlm.nih.gov/8203356/>

## See also

The American Journal of Clinical Hypnosis YR: 1994 VL: 36 DE: CCT NO: 4

## Keywords

Adult; Gene Transfer Techniques; Infection; Intranasal; non pharmacological intervention - genetic& reprod; pharmacological\_intervention; vectors;