Treatment—Minimize harm to patients

Haifu

Seapopinna

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Model CZB Ultrasound Therapeutic Device for Rhinitis

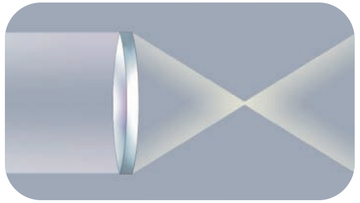
Breathe Freely Again

Seapopinna

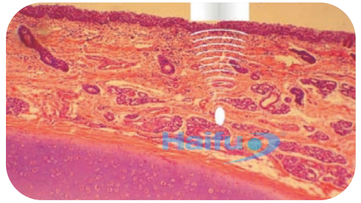
This is a brand-new non-invasive solution for Allergic Rhinitis which is a refractory disease in E.N.T. department. An ultrasounic beam can be applied to ablate deep seated lesion without damaging the superficial tissue of nasal mucosa.

Principle of Focused Ultrasound Therapy

An ultrasonic beam can be directed to nasal submucosa, resulting in an instant temperature rise to above 65°C. The resultant thermal and cavitation effect can lead to coagulative necrosis of the targeted tissue including the over-reactive vessels, nerves, and glands at the focal region while the superficial tissue of nasal mucosa is spared.



Sun beam was focused by convex lens,
likewise, ultrasound can be focused by a transducer

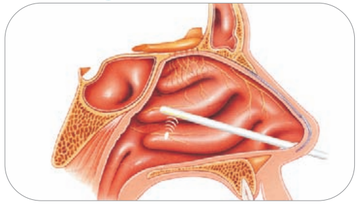


Ultrasound beam pass through epithelium
tissue of nasal mucosa

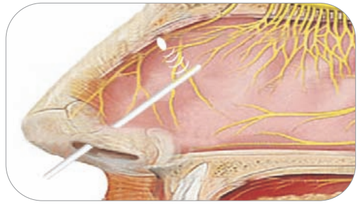
Indication

Allergic rhinitis

Treated region



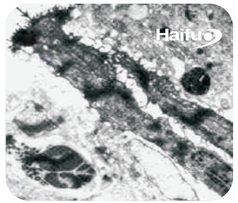
Inferior turbinate



Nasal septum

Clinical advantages

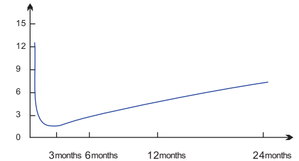
1. Non-invasive treatment without damage to nasal mucosa and cilium



Nasal mucosa and cilium are well
preserved after treatment

2. Persistent and stable efficacy

Symptoms and signs quantitative score

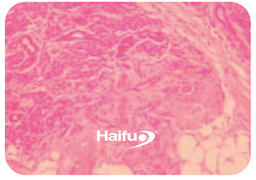


3. Repeatable treatment

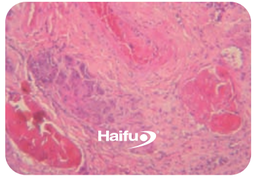
4. Patient friendly treatment
without radiation or smog

Image of Live Treatment

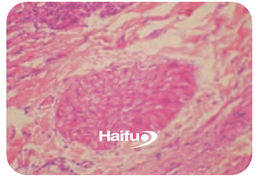
Treatment rationale



In the treated region, coagulative necrosis can be achieved on glands or partial cells of glands, which will decrease the gland secretion, therefore alleviate rhinorrhea.



Endothelial cells of vascellum can be necrotized by focused ultrasound and form thrombus which will block the entire or partial vascellum, therefore alleviate rhinobyon.



Deep seated ganglion cells and nerve fibers of nasal mucosa can be necrotized by focused ultrasound. Nerval excitability will decrease and the symptoms including rhinocnesmus and sternutation will be alleviated.

Zhu Jin, Li Dong. Effect of focused ultrasound on morphology of nasal mucosa of sheep. CHIN ARCH OTOLARYNGOL HEAD NECK SURG/April 2006, Vol. 13, No.4 241

Comparison between pre-treatment and post-treatment

pre-treatment

post-treatment

4 week after treatment, the hypertrophic inferior turbinate of patient decreased, the effective breathing area of nasal cavity increased, and so the symptom of rhinobyon was relieved.

Comprehensive solutions

Professional Focused Ultrasound Device

Completely independent intellectual property

Experienced Specialists

Professional clinical and engineering support and training

Customized solutions

Clinical solution, business solution, marketing solution and service solution