

Improved Voice Recognition in Response to 2% Procaine HCl Injections: Case Study

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From the beginning, the editorial board of the Journal decided to avoid publishing anecdotal, or at least not fairly well established, indications for using mesotherapy treatments. But how you can suppress your excitement when suddenly and unexpectedly you achieve a wonderful result that not only surprises you but also brings a world of happiness to your patient? I have decided to take a chance and tell you about the outcome of such a case.

First, let us go back to the time when Dr. Pistor was perfecting his mesotherapy treatment techniques. That was a time of discovering the wonders of mesotherapy and experimenting with many drugs and formulations. Procaine HCl was one of the most promising and recognized drugs used for rejuvenation and revitalization treatments at the time. We still recognize procaine as such despite certain side effects and frequent allergic reactions.

Dr. Pistor noticed that many of his older patients said they had noticed significant hearing improvement after a several high-dose procaine treatments.

At the time I had a patient who presented for that exact problem. She already had a hearing aid and still she couldn't understand people talking to her. During regular conversations she had to see a person's mouth to understand meaning of the words. She was desperate, crying, and willing to do anything just to get her hearing improved. Her social life was in ruins, and she even couldn't call her friends and chat on the phone. I felt I had to offer her this last-hope treatment – procaine mesotherapy.

Still being slightly skeptical, we started the treatment once a week without doing a hearing test. After 5 treatments the patient

asked my secretary why she talked to her so loudly. That was a great surprise to us, as in her case we were accustomed to screaming in order to be understood. This patient's hearing improved so much that she could hear us without her usual straining and lip-reading. She also admitted to having no more problems on the phone. Of course, now I regret my lack of vigilance in not doing an objective hearing test before treatment started. After 2 to 3 months, the patient decided to stop treatments.

Two months later she was back complaining of the same problem. This time before starting the treatment, I ordered a hearing test. As before, after 4 to 5 treatments her hearing had improved.

Summary of the Initial Audiologic Evaluation Done on January 26, 2005

Otосcopy revealed clear ear canals bilaterally. Pure-tone audiometry for the left ear revealed a moderate sensorineural hearing loss (SNHL) from 250-2000Hz, sloping to a moderately severe SNHL from 3000-4000Hz, dropping further to a profound hearing loss at 6000-8000Hz. Pure-tone audiometry for the right ear revealed a moderate SNHL from 250-2000Hz, sloping to a moderately severe sensorineural hearing loss at 4000Hz, dropping further to SNHL at 6000-8000Hz. A 15 dB air-bone gap was noted at 250 Hz in the right ear. Speech reception threshold testing and word recognition revealed a lack of speech understanding at normal speaking voice levels, even with use of the right ear hearing aid.

Tympanometry revealed normal middle ear pressure and tympanic membrane mobility for both ears. Acoustic reflex thresholds were obtained at expected sensational levels in all conditions except the ipsilateral left condition at 1000Hz, 2000Hz,

and 4000Hz and all conditions at 4000 Hz, consistent with the degree of hearing loss. Acoustic reflex decay could not be completed due to an inability to maintain a hermetic seal.

Summary of Repeat Audiologic Examination After 2 Months of Procaine Treatment, Done on April 6, 2005

Pure tone air and bone conduction thresholds indicated a moderate SNHL of sensitivity for the right ear (250-2000Hz), dropping to a moderately severe hearing loss at 4000Hz, and further dropping to a severe hearing loss through 6000-8000Hz.

The left ear manifested normal hearing sensitivity at 250Hz, dropping to a mild to moderate SNHL through 500-2000Hz, further dropping to a moderately SNHL through 3000-4000Hz, and dropping to the profound range of hearing loss through 6000-8000Hz. The patient’s voice recognition for normal voice levels was almost normal. The patient again was tested with the right ear hearing aid.

Comparison of Air Conduction Thresholds for the January 26, 2005, and April 6, 2005, Studies.

Date	Frequency in Hz								
	250	500	1 K	2 K	3 K	4 K	6 K	8 K	PTA
	RIGHT EAR - hearing treshold in dB								
1/26	50	55	55	55		65	85	90	55
4/06	55	55	55	55		65	80	90	55

Date	Frequency in Hz								
	250	500	1 K	2 K	3 K	4 K	6 K	8 K	PTA
	LEFT EAR - hearing treshold in dB								
1/26	40	40	50	50	60	70	95	95	47
4/06	25	35	50	50	65	70	95	95	45

Pure-tone air and bone conduction thresholds on the two testing dates were identical for both ears with the exception of 250Hz for the left ear, which revealed a 15dB better air conduction threshold on April 6, 2005. Three-frequency pure-tone average was 55dB hearing level (HL) for the right ear on both dates. Pure tone average for the left ear was 47dB HL on January 26, 2005, and 45dB HL on April 6, 2005.

Protocol used

One-and-½ cc of 2% procaine HCl was evenly administered in 6 places around the lower half of the ear. Treatment was repeated 2 times per week for 2 weeks then weekly for 2 weeks. Maintenance treatment continued every 2 to 3 weeks.

Fold the skin before each injection.



Summary

This patient’s hearing problem is of sensorineural origin and is often called “nerve deafness,” which affects listening.

There are no scientific data explaining how procaine could improve a patient’s hearing. It is a mystery to be solved. The objective hearing test did not conclusively confirm the reason for patient’s improved voice recognition. It would be interesting to treat more cases and gather more data to establish the validity of these findings. My patient had no other options left to her. Since then, I had one more patient with a similar problem and so I have been able to repeat the study. The second patient had also reported improved hearing. Maybe we are up to something or maybe this is just another dead-end case. Help me solve the mystery. Do a similar study at your office if the right patient presents to you.

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