

Speech and Swallowing Problems of Polio and Post-Polio

The German poet Christian Morgenstern said: *“You are not ‘at home’ where you are resident, but where you are understood.”*

I’m Thomas Lehmann, a medical doctor, who is a retired generalist with neurological knowledge. I treated polio survivors in Berne, pioneering the first center in Switzerland. I want to tell you about my polio and post-polio associated speech and swallowing problems.



In 1957, I contracted polio. Before my polio, I was a lively talkative boy, so much that in kindergarten even Santa Claus gave me adhesive tape. (Receiving that gift was quite traumatic, in fact.)

I had bulbar, and probably the encephalitic form of polio, with cranial nerve paralysis. In addition, my left arm became weaker and I am left-handed. The asymmetry of the weakness of my back muscles led to minor scoliosis.



Due to the damage caused to the cranial nerves, I had weakness and an asymmetry of my left facial muscles and eyelid. I had weakness of the phonation muscles, tongue, soft palate, which was shortened, and of the vocal cord muscles. My neck muscles were weakened, so I had difficulties holding my head upright.

I had, and still have, a hoarse sounding and low voice with functional air loss when speaking, resulting in fatigue and dizziness, and the need for more air to continue speaking. The shortening of the soft palate causes a nasal pronunciation.

As a child, communication with my family was very difficult but also very important for them to help me.

My main problem was not being able to swallow food, liquids or my own saliva. It ran out of my mouth or had to be spat into a glass. My tongue and the muscles for closing my soft palate were paralyzed or weakened, so liquid came upwards out of my nose. The muscles closing the epiglottis and the upper esophagus also did not function properly and I aspirated saliva. I nearly suffocated several times, giving me the feeling I was about to die because I was unable to call for help.

In hospital, they considered doing a tracheotomy to facilitate better clearing of my upper airways of the saliva, food or liquids that I aspirated. However, I didn’t have one and, thankfully, I did not have any infections of the respiratory tract or lungs.

For about a year, I was fed through a red rubber feeding tube, which I changed myself every 3 weeks.

After I moved to the newly built “Polio-Zentrale” near the University Hospital of Berne, I received different therapies. I don’t remember them all, but I had daily gentle massages to my dorsal and frontal neck muscles to strengthen and straighten my neck to gain better control of my head and swallowing.

I learned to chew better, to gulp more, and add more solid food, and to put any food I couldn’t swallow in my spittoon. I learned to eat normally, but slower than others (except for desserts), and I still had to support my head when eating.

There was decreasing coughing, no gurgling voice during or immediately after eating or drinking, and less extra effort or time was needed to chew or swallow. Less food or liquid leaked from my mouth or got stuck in the mouth.



It was not surprising that I had a weight loss problem.

My voice and pronunciation became more understandable. I attended primary school, high school, college and medical school. I joined and presided over a fraternity. I even sang in a school choir and was in the Swiss army. I married and we now have six children and five grandchildren.

In 1981, I joined Dr. Paul Walther in Berne, one of the medical pioneers of the polio epidemics of the ’50s. He assisted polio survivors in using mechanical respiration, and I became – as I promised him at my acute polio time – his successor.

Dr. Walther wrote about post-polio breathing and swallowing problems in the late ’60s. In the ’90s, I gave several lectures on aspects of post-polio syndrome throughout Switzerland, Europe and the USA.



Voice

Depending on my fatigue, which is more general than muscular, my voice gets weaker and my articulation more and more slurred. It becomes difficult to raise my voice and nearly impossible to take part in social or professional discussions when there is a noisy background.

My ideas are often not heard. It was, and still is, very frustrating. I tried speech therapy and had electrotherapy of my soft palate, but there was no real improvement.

With my difficulties of speech, people often don't understand the content of the conversation and break it off. Many lack the patience to listen. Today, I often don't seek out conversation being afraid of not being understood.

The exception – surprisingly or not – is with my patients, my family and my friends, because I can talk more quietly, more relaxed and without a noisy background.

I am very thankful to everyone who takes the time to listen to me and to eat with me, and respect the longer time I need.

Then I feel “at home.” ■

Gradually my muscles weakened, and I started having swallowing and voice difficulties as my energies and endurance decreased.

Swallowing

A near choking event resulted in an endoscopy and a videofluoroscopy of my esophagus.

Viewing the results (*below*) and understanding the situation made me more careful when chewing and eating, and when choosing my meals to avoid unpleasant complications.

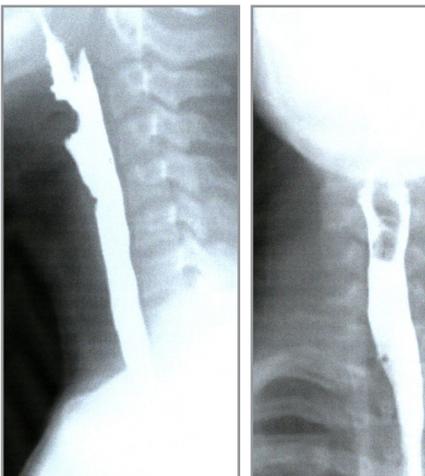
Nowadays, I sometimes can improve or enable better swallowing possibilities by lifting my hyoid bone or by turning my head to one side. Once I had a wry neck (torticollis) that nearly made me lose my swallowing function.

The bulbar form of poliomyelitis is not so often evident. Within every 100,000 persons infected by the poliovirus, there will be approximately 1,000 with paralysis, and of these, about 400 will have clinically-persisting paralysis/paresis and about 40 will have the bulbar form of poliomyelitis.

Out of my approximately 700 polio patients, there were 15 who mentioned bulbar and cranial nerve troubles in the acute phase, with about 10 still having them or experiencing new problems.

–Thomas Lehmann, MD

Normal swallowing ...



My swallowing ...

