

Pneumatic Petrous

For more radiological details, see the linked video: 

A 19- years old female, complains of pounding headache. The headache mostly strikes the right side. It comes with the usual accompanies of the migraine; the photophobia, the phonophobia, the pounding eye pain, and the nausea. The personal medical history was insignificant. However, the familial history is remarked by the recurrent episodes of coronary arterial disease. The physical examination of the patient was normal.

N.B. the headache did not respond to the conventional treatment of the migraine headache despite the long and multi experimental trials.

*On brain CT-scan, there are a moderate dilatation of the left Sylvian fissure, and an arachnoid cyst in Sylvian cistern, between the left temporal, insular, and parietal lobes; **figure (1)**. However, the most flagrant finding is the hyperpneumatization of the two temporal lobes; **figure (2)**.*



A moderate dilatation of the left Sylvian fissure



An arachnoid cyst in the left hemi- brain. It is located in Sylvian cistern, between the left temporal & insular & parietal lobes.

Figure (1)

Bilaterally, the air cells occupy the entire temporal bone and reach the petrous apex. In such a way, the air completely surrounds the cochlea. Thus, the cochlea becomes astonishingly visible and quite identifiable. For the same reason, the two auditory nerves are also identifiable.

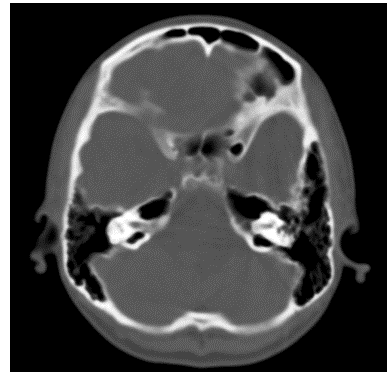


figure (2)

Bilateral Temporal Hyperpneumatization

Bilaterally, the air cells occupy the entire temporal bone and reach the petrous apex. In such a way, the air completely surrounds the cochlea. Thus, the cochlea becomes astonishingly visible and quite identifiable. For the same reason, the two auditory nerves are also identifiable.

I could not correlate the radiological findings of the patient with her complains. The arachnoid cyst as well as the dilatation of Sylvius fissure are on the left side. Whereas, the headache mostly strikes the right hemibrain. Moreover, the bilateral presence of temporal hyperpneumatization cannot explain the unilateral episodes of the headache.

Therefore, I opt for another pathology of the patient's headache. Actually, I opt for a vascular inflammation that is well known for its familial incidence; such as Horton disease.

The patient did well with a therapeutic regimen of methyl prednisolone 60 mg/ day for 10 days. Actually, she felt better since the first dose. Then, the cortisone dose is reduced to 10 mg/day for two consecutive months.

N.B. the article will be updated if necessary.

In another context, one can also read:

- [*Neural Conduction, Personal View vs. International View \(Innovated\)*](#)
- [*Upper Motor Neuron Lesions, Pathophysiology of Symptomatology*](#)



[*Neural Conduction, Action Pressure Waves \(Innovated\)*](#)



[*Neural Conduction, Action Potentials \(Innovated\)*](#)



[*Neural Conduction, Action Electrical Currents \(Innovated\)*](#)



[*The Function of Action Potentials \(Innovated\)*](#)



[*The Three Phases of Neural Conduction*](#)

-  [*Neural Conduction in the Synapse \(Innovated\)*](#)
-  [*Sensory Receptors*](#)
 - [*Nodes of Ranvier, the Equalizers \(Innovated\)*](#)
-  [*Nodes of Ranvier, the Functions \(Innovated\)*](#)
-  [*Nodes of Ranvier, Function N1 \(Innovated\)*](#)
-  [*Nodes of Ranvier, Function N2 \(Innovated\)*](#)
-  [*Nodes of Ranvier, Function N3 \(Innovated\)*](#)
 - [*The Philosophy of Pain, Pain Comes First! \(Innovated\)*](#)
 - [*The Philosophy of Form \(Innovated\)*](#)
 - [*Spinal Injury, Pathophysiology of Spinal Shock, Pathophysiology of Hyperreflexia*](#)
-  [*Spinal Shock \(Innovated\)*](#)
-  [*The Clonus \(Innovated\)*](#)
-  [*Hyperactivity Hyperreflexia \(Innovated\)*](#)
-  [*Hyperreflexia, Extended Sector of Reflex*](#)
-  [*Hyperreflexia, Bilateral Responses*](#)
-  [*Hyperreflexia, Multiple Responses*](#)
 - [*Nerve Conduction Study, Wrong Hypothesis is the Origin of Misinterpretation \(Innovated\)*](#)
-  [*Wallerian Degeneration \(Innovated\)*](#)
-  [*Neural Regeneration \(Innovated\)*](#)
 - [*Wallerian Degeneration Attacks Motor Axons, While Avoids Sensory Axons*](#)
-  [*Barr Body, the Whole Story \(Innovated\)*](#)
-  [*Boy or Girl, Mother Decides!*](#)
-  [*Adam's Rib and Adam's Apple, Two Faces of one Sin*](#)
-  [*The Black Hole is a \(the\) Falling Star?*](#)

-  [*Adam's Rib, could be the Original Sin?*](#)
-  [*Pronator Teres Syndrome, Struthers Like Ligament \(Innovated\)*](#)
-  [*Function of Standard Action Potentials & Currents*](#)
-  [*Posterior Interosseous Nerve Syndrome*](#)
-  [*Spinal Reflex, New Hypothesis of Physiology*](#)
-  [*Hyperreflexia, Innovated Pathophysiology*](#)
-  [*Clonus, 1st Hypothesis of Pathophysiology*](#)
-  [*Clonus, 2nd Hypothesis of Pathophysiology*](#)
-  [*Clonus, Two Hypotheses of Pathophysiology*](#)
-  [*Hyperreflexia \(1\), Pathophysiology of Hyperactivity*](#)
-  [*Hyperreflexia \(2\), Pathophysiology of bilateral Responses*](#)
-  [*Hyperreflexia \(3\), Pathophysiology of Extended Hyperreflex*](#)
-  [*Hyperreflexia \(4\), Pathophysiology of Multi-Response Hyperreflex*](#)
-  [*Barr Body, the Second Look*](#)
-  [*Mitosis in Animal Cell*](#)
-  [*Meiosis*](#)
-  [*Universe Creation, Hypothesis of Continuous Cosmic Nebula*](#)
-  [*Circulating Sweepers*](#)
-  [*Pneumatic Petrous, Bilateral Temporal Hyperpneumatization*](#)

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