

Oral presentation

## **Auditory processing in schizophrenia**

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Auditory hallucinations are a frequent, principal and disabling symptom of schizophrenia, however, little is known about their pathophysiology. The “voices inside the head” are very disturbing and the fact that the source of the “voices” is often described as being “on the outside” of the patient greatly contributes to the feeling of diffusion of the patient's personality, as well as on their weak control of what is real and what is imaginary.

“Hearing voices” in the absence of an auditory stimulus is obviously due to pathological perception. In trying to track down the pathological pathways of perception, suggestions have been made that auditory hallucinations may be associated with subvocal speech, a literal interpretation of “thinking aloud”. Other hypotheses include the loss of automatic inhibition of auditory processing of self-generated speech or hemisphere asymmetry manifested by disturbances of speech perception, lateralized to the left temporal lobe as can be studied experimentally in a dichotic listening paradigm. Also, it has been theorized that, given the presence of the frontal lobe syndrome in schizophrenia, patients with schizophrenia have a significantly diminished ability to cognitively modulate and process an auditory stimulus by focusing attention.

This presentation will be a brief review of the above theories as well as methods undertaken by researchers to support them.