Reduced high and low frequency gamma synchronization in patients with chronic schizophrenia

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Table 1. Demographic and Clinical Characteristics of the Subjects

	HC	SZ	df	t or x^2	p
Sex, M/F, No	9/13	6/11	1	0.13	0.72
Age (years)	37.0 ± 16.1	35.6 ± 10.0	37	0.33	0.74
Handedness	97.7 ± 5.5	97.1 ± 5.8	37	0.32	0.75
SES	2.3 ± 0.7	3.9 ± 1.0	37	-5.8	<0.001*
Parental SES	2.8 ± 0.9	2.6 ± 0.9	37	0.45	0.66
Medication dose (CPZ equiv., mg)		541 ± 367			
Symptom onset (years)		22.2 ± 8.1			
Duration of illness (years)		13.5 ± 7.5			
SAPS					
Auditory hallucination		1.8 ± 1.1			
Hallucinations		7.5 ± 5.5			
Delusions		18.9 ± 9.7			
Bizarre behavior		8.5 ± 3.3			
Thought disorder		14.6 ± 10.6			
SANS					
Affective flattening		25.9 ± 4.9			
Alogia		15.3 ± 5.0			
Avolition		14.3 ± 3.4			
Anhedonia		16.6 ± 4.3			
Inattention		10.3 ± 3.7			

The data are given as mean ± SD. Asterisks indicate statistically significant results.

HC: healthy controls, SZ: patients with schizophrenia. SZ showed significantly lower SES than HC.

Table 2. Dipole moments of the ASSR

		HC (n=22) (nA/m)	SZ (n=17) (nA/m)	df	*t*	*p*
20 Hz	Left	3.6 ± 1.2	4.0 ± 1.6	37	-0.88	0.39
	Right	3.6 ± 1.3	4.1 ± 2.2	37	-1.0	0.30
30 Hz	Left	3.0 ± 1.1	2.6 ± 1.1	37	1.3	0.19
	Right	4.0 ± 1.5	3.4 ± 1.1	37	1.4	0.18
40 Hz	Left	3.3 ± 1.2	2.4 ± 0.8	37	2.8	0.008*
	Right	4.1 ± 1.4	2.6 ± 0.9	37	3.8	0.001*
80 Hz	Left	1.4 ± 0.8	0.9 ± 0.4	37	2.7	0.01*
	Right	1.6 ± 1.0	1.0 ± 0.4	37	2.5	0.02*

The data are given as mean ± SD. Asterisks indicate statistically significant results.

HC: healthy controls, SZ: patients with schizophrenia.

Table 3. Dipole locations of the ASSR

		Left (mm)			Right (mm)		
		x	y	z	x	y	z
20 Hz	HC (n=22)	-45.9 ± 4.5	5.3 ± 12.8	60.9 ± 7.9	48.0 ± 6.9	8.3 ± 7.6	61.0 ± 13.3
	SZ (n=17)	-49.1 ± 3.6	3.4 ± 9.5	64.9 ± 10.0	48.0 ± 5.8	10.0 ± 8.0	60.4 ± 9.7
30 Hz	HC	-45.6 ± 4.6	3.4 ± 11.6	62.3 ± 11.2	47.7 ± 5.8	8.3 ± 9.2	60.2 ± 9.8
	SZ	-49.0 ± 5.1	5.6 ± 8.2	64.1 ± 7.0	45.6 ± 6.9	10.4 ± 9.4	61.2 ± 9.2
40 Hz	HC	-48.3 ± 3.9	2.0 ± 11.2	61.7 ± 9.5	52.1 ± 5.2	8.5 ± 9.9	60.2 ± 7.7
	SZ	-52.6 ± 4.8	1.7 ± 11.1	56.7 ± 12.7	50.4 ± 6.6	6.5 ± 9.1	58.6 ± 9.7
80 Hz	HC	-47.7 ± 6.6	2.9 ± 15.0	52.1 ± 15.8	51.3 ± 7.2	3.9 ± 15.2	54.1 ± 12.8
	SZ	-53.5 ± 7.2	6.6 ± 13.7	54.2 ± 18.5	51.1 ± 8.8	4.6 ± 17.1	54.2 ± 14.2

The data are given as mean ± SD. HC: healthy controls, SZ: patients with schizophrenia

The zero point was the mid-point of the line connecting the bilateral preauricular points. The x-axis was the line from the left to the right with positive values toward the right, the y-axis was the postero-anterior line with positive values anteriorly and the z-axis was the ventro-dorsal line with positive values dorsally.