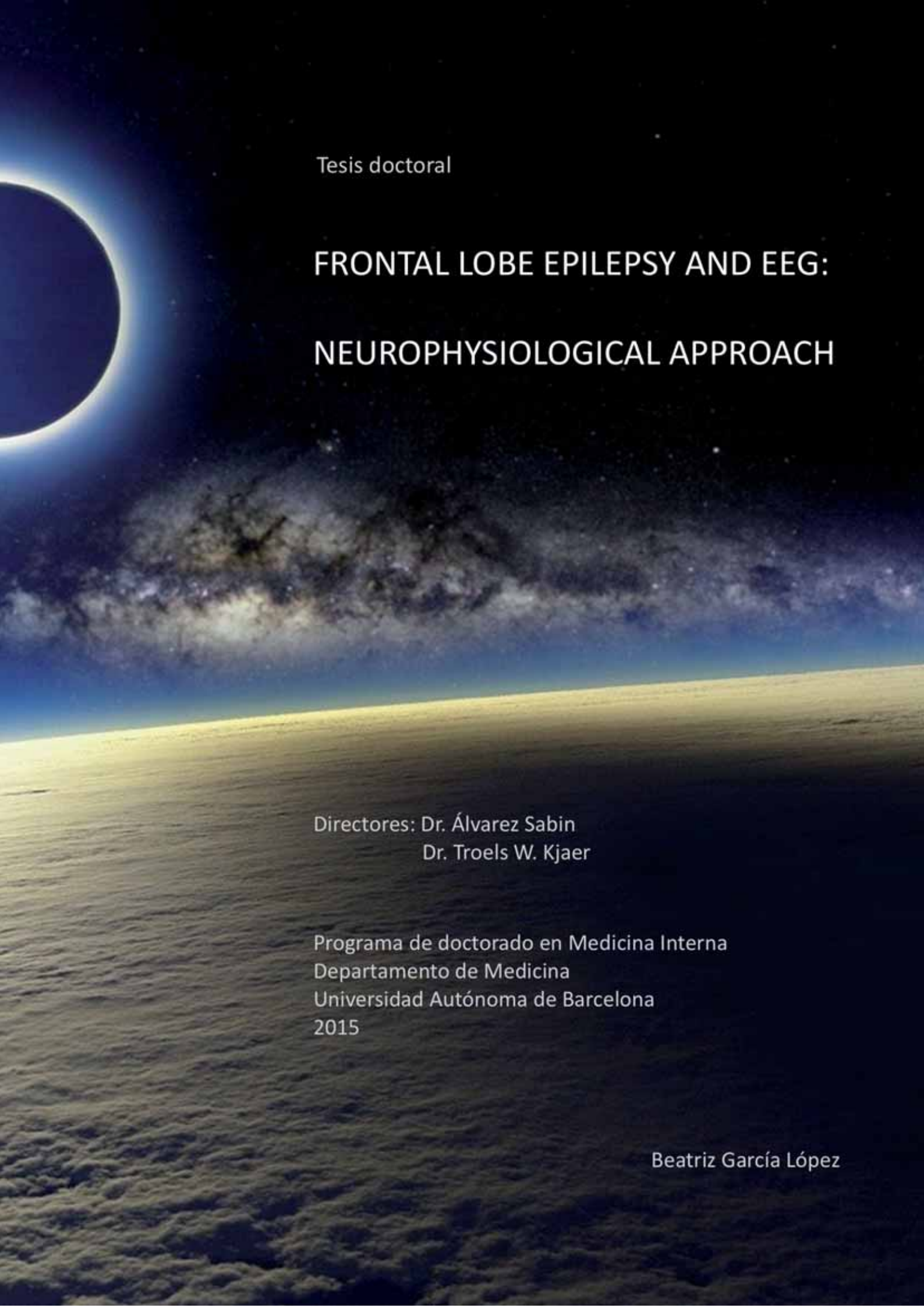

Tesis doctoral

FRONTAL LOBE EPILEPSY AND EEG:

NEUROPHYSIOLOGICAL APPROACH

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Programa de doctorado en Medicina Interna
Departamento de Medicina
Universidad Autónoma de Barcelona
2015

Beatriz García López

J.M.M.S.

J.M.M.S.

Patient who started having seizures at 58 years old after a CVA accident. MRI showing right fronto-temporal isquemic lesions and subdural hematoma. Clinically he presents episodes of tonic body contraction, generally during the night.

EEG characteristics:

Isolated very low voltage spikes in in right frontal regions, with maximal expression in right front-central region, F4. Seizure arise well located, from the same regions (F4), with a synchronized rhythm from F4 and progressive increasing diffusion and slowing of the ictal activity.

Fig.1 Referential montage. Hiperpnea facilitates right frontal slowing, with delta waves, with maximal expression in F4 and F8> Fp2 .

Fig.2 Referential montage. Low amplitude synchronized rhythm arising from right front-central regions, F4. At the end of the epoch we can see breathing irregularity.

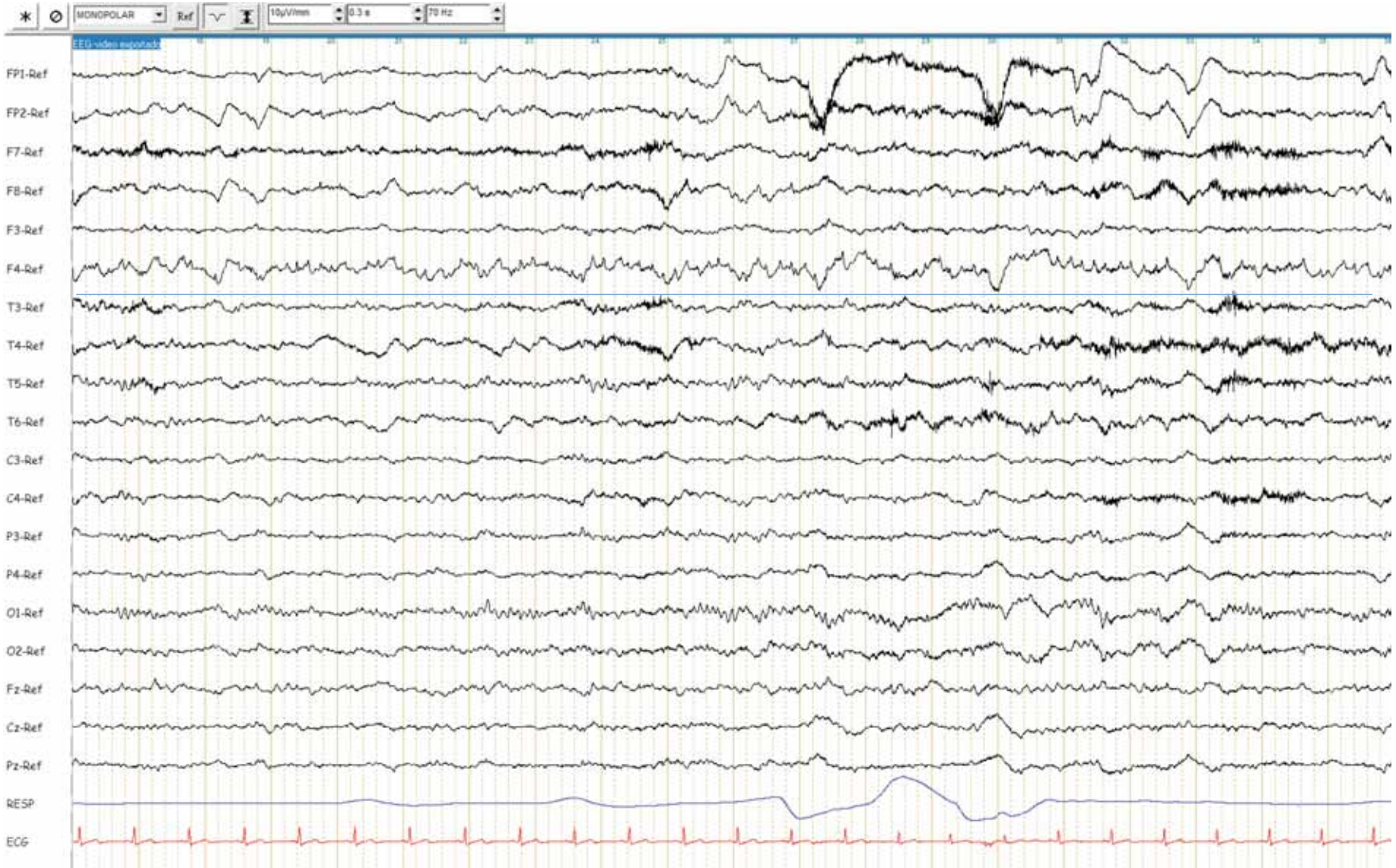


Fig.3 Referential montage. After 40 seconds ictal activity still remains quite located. Alpha basal activity is seen independently in both posterior regions. Breathing irregularity.

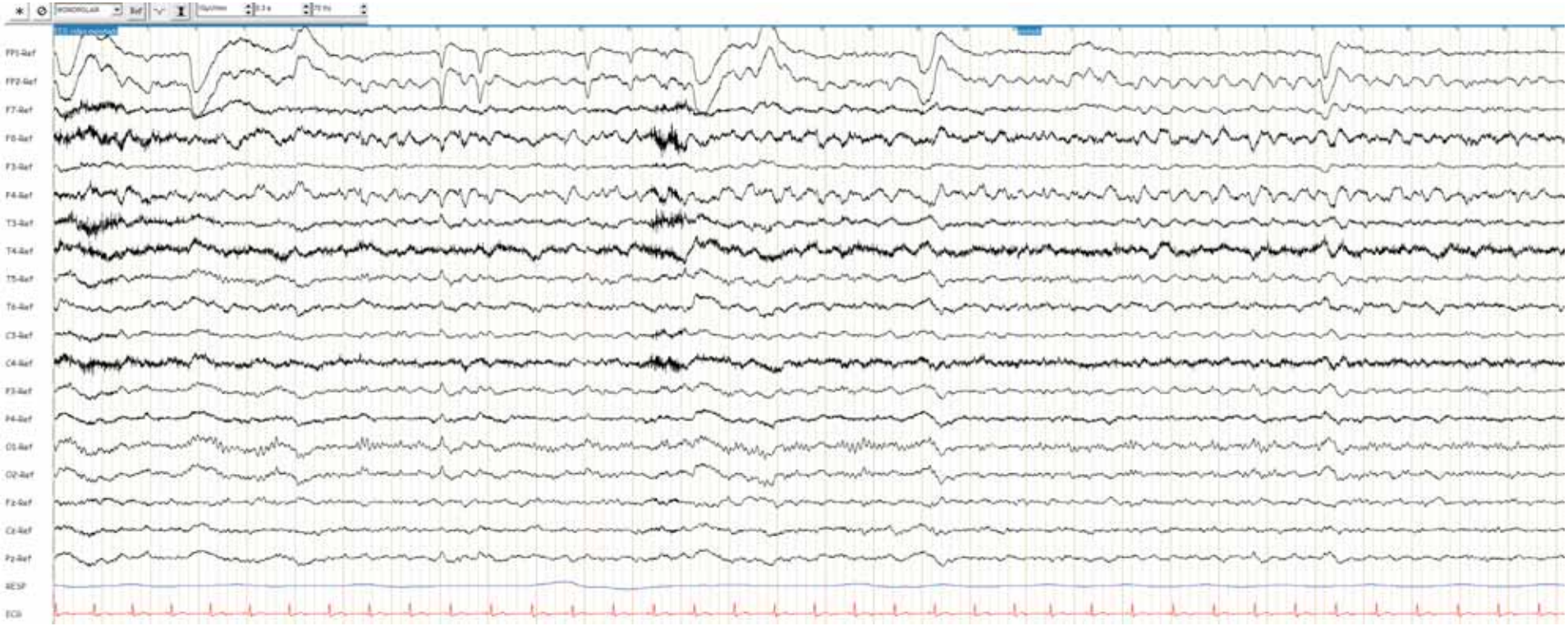


Fig.4 Referential montage. On-going seizure with progressive slowing quite locate to right frontal regions, with maximal expression in F4, F8, Fp2. Apnoea and breathing irregularity.

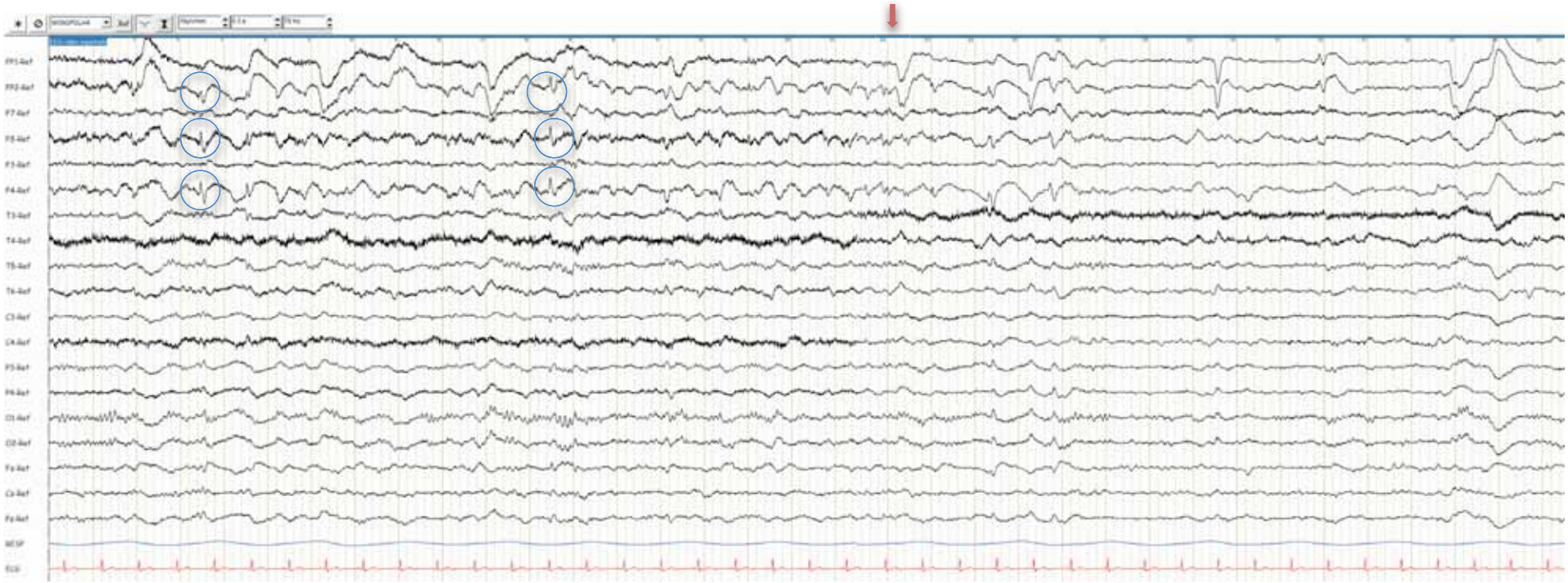


Fig.5 Referential montage, seizure ending. Spikes with maximal expression in right front-central region, F4, and diffusion to F8, Fp2. Seizure ending highlighted with an arrow. Marked post-ictal slowing in frontal regions, with right predominance, while we can see alpha basal activity in both posterior regions.

O.C.G.

O.C.G.

Patient without a known antecedent who started having seizures at 2 years old, with normal MRI. He has a personality disorder with behaviour disorder. Due to this fact he lives institutionalized. He has frequent seizures, sometimes grouped in clusters of more than six episodes, in spite of poly-therapy (with up to seven AED), with coprolalia and fear, and afterwards impairment of consciousness. He also present hyper-motor episodes during sleep.

EEG characteristics:

EEG recordings show isolated sharp waves of less than 50 μV, and up to 100μV, in both left and right inferior frontal, asynchronous (independent foci activity).
Ictal activity arises with a very low amplitude synchronized rhythm, and marked and global attenuation of voltage with a diffuse distribution and almost immediate re-appearance of IED in left frontal regions.

O.C.G.

Fig. 1 Referential montage. Sleep activity. Frontal isolated sharp waves with maximal expression in left inferior frontal, F7.

O.C.G.

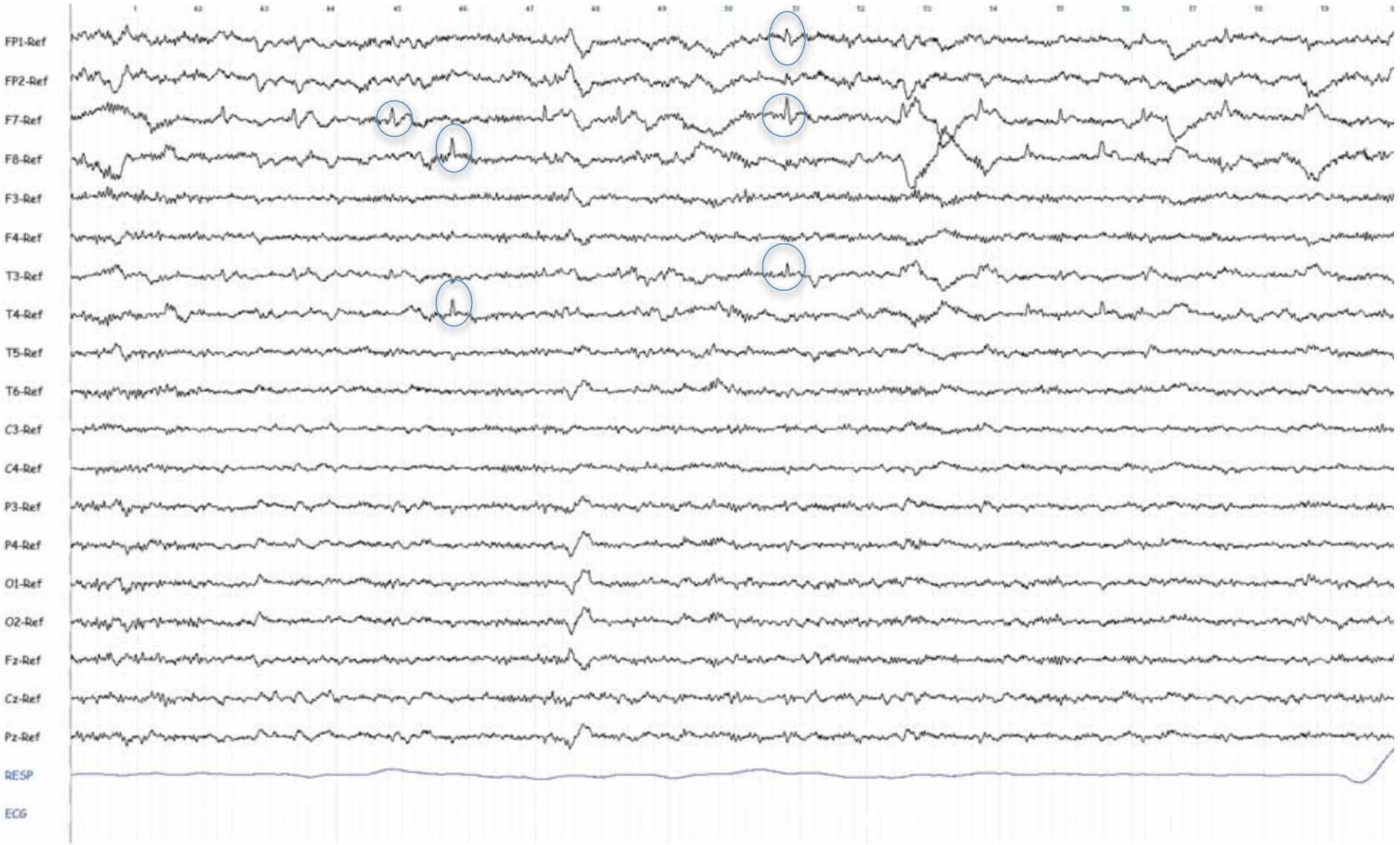


Fig.2 Referential montage. Sleep activity. Both left frontal (more frequent) and right frontal (less frequent) isolated sharp waves, asynchronous, with diffusion to adjacent regions.

O.C.G.

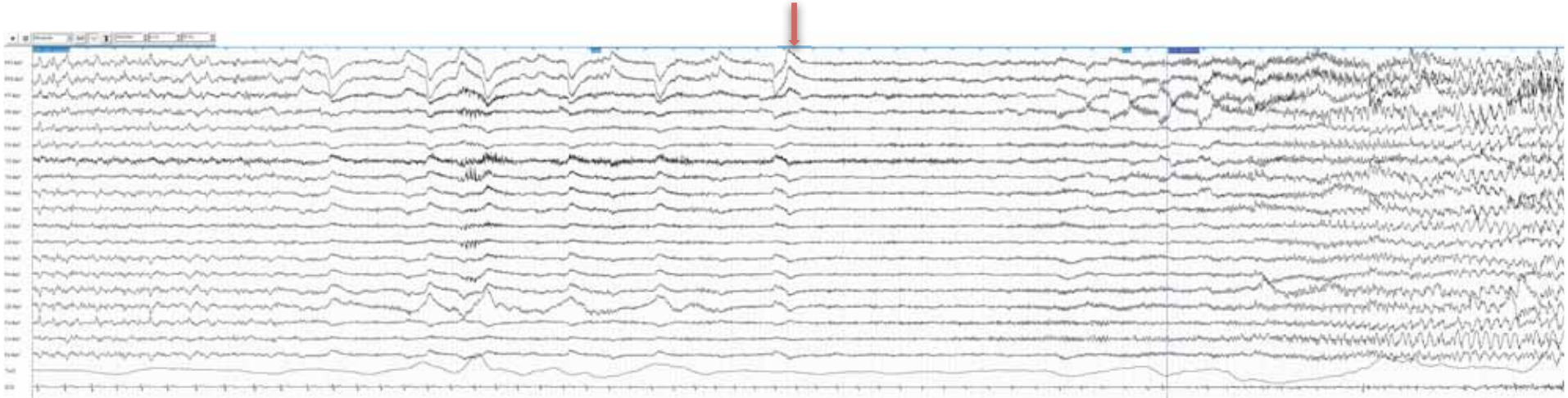


Fig.3 Referential montage. Overall view of seizure onset, with a marked and diffuse attenuation and afterward synchronized rhythm. More detailed view of seizure onset in in fig. 4 and 5.

O.C.G.

Fig. 4 Referential montage. Block of the activity with a global attenuation while a low voltage synchronized rhythm arises diffuse, without a clear location. Breathing irregularity.

O.C.G.

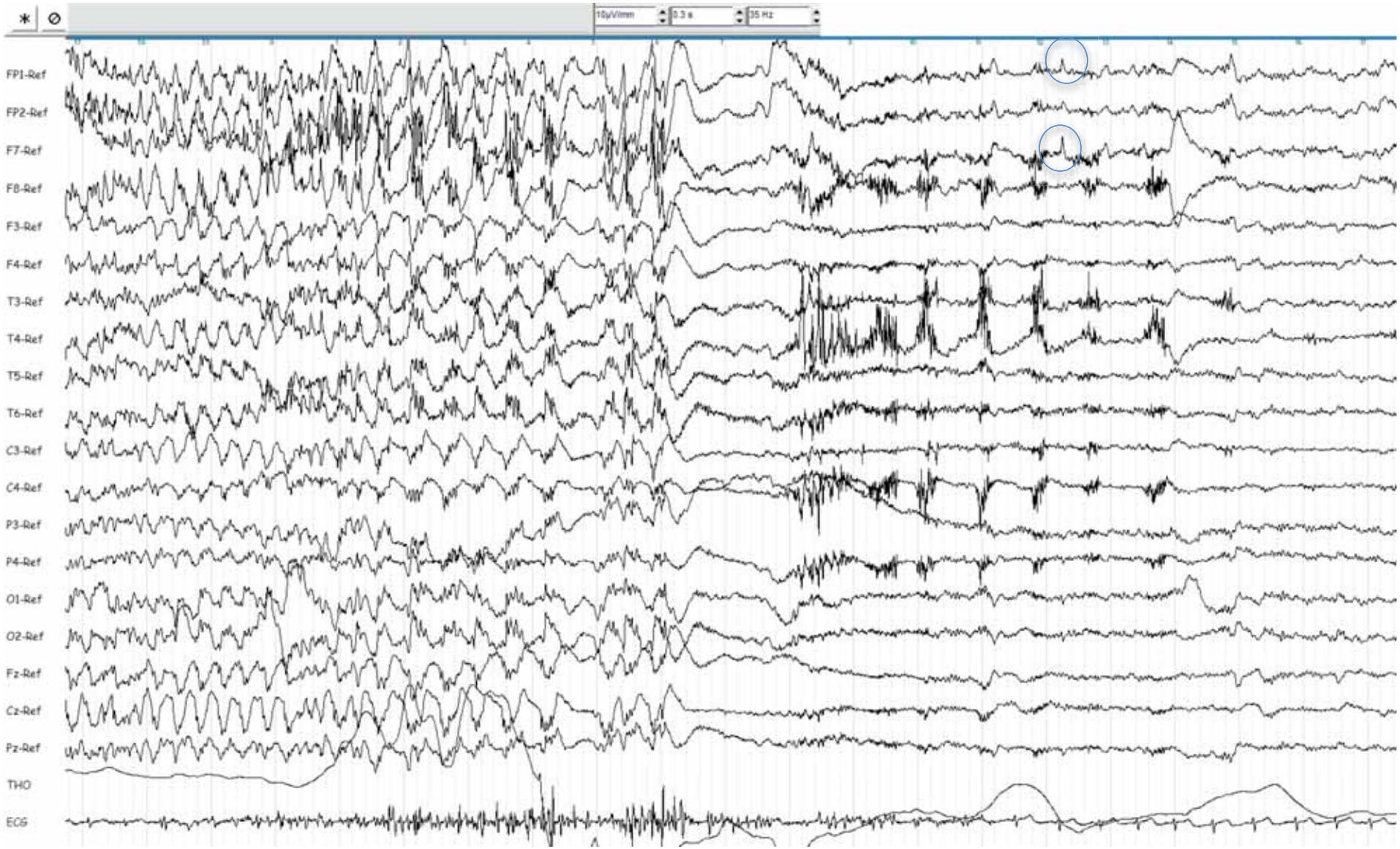


Fig. 5 Referential montage. Seizure ending with global attenuation and almost immediate isolated sharp waves in left inferior frontal region.

E.M.Q.

E.M.Q.

Patient who started with seizures at 75 years old after a CVA. Clinically during the seizures he refers sensation of feeling sick, and he shows very expressive vegetative signs, with tachypnea, tachycardia, and sweating. He refers different intensities of episodes, being now milder but very frequent, without impairment of consciousness in most of them, and with impairment of consciousness in some of them, just for some seconds and falling to the ground with immediate consciousness recovery.

EEG characteristics:

As main interictal epileptiform activity EEG showed isolated spikes of less than 50 μV, located in right inferior-frontal region (F8). Seizures, arising from that region, started with low amplitude synchronized rhythm at around 25 Hz. Post-ictal showed right frontal slowing while alpha rhythm was observed in both posterior regions.

E.M.Q.

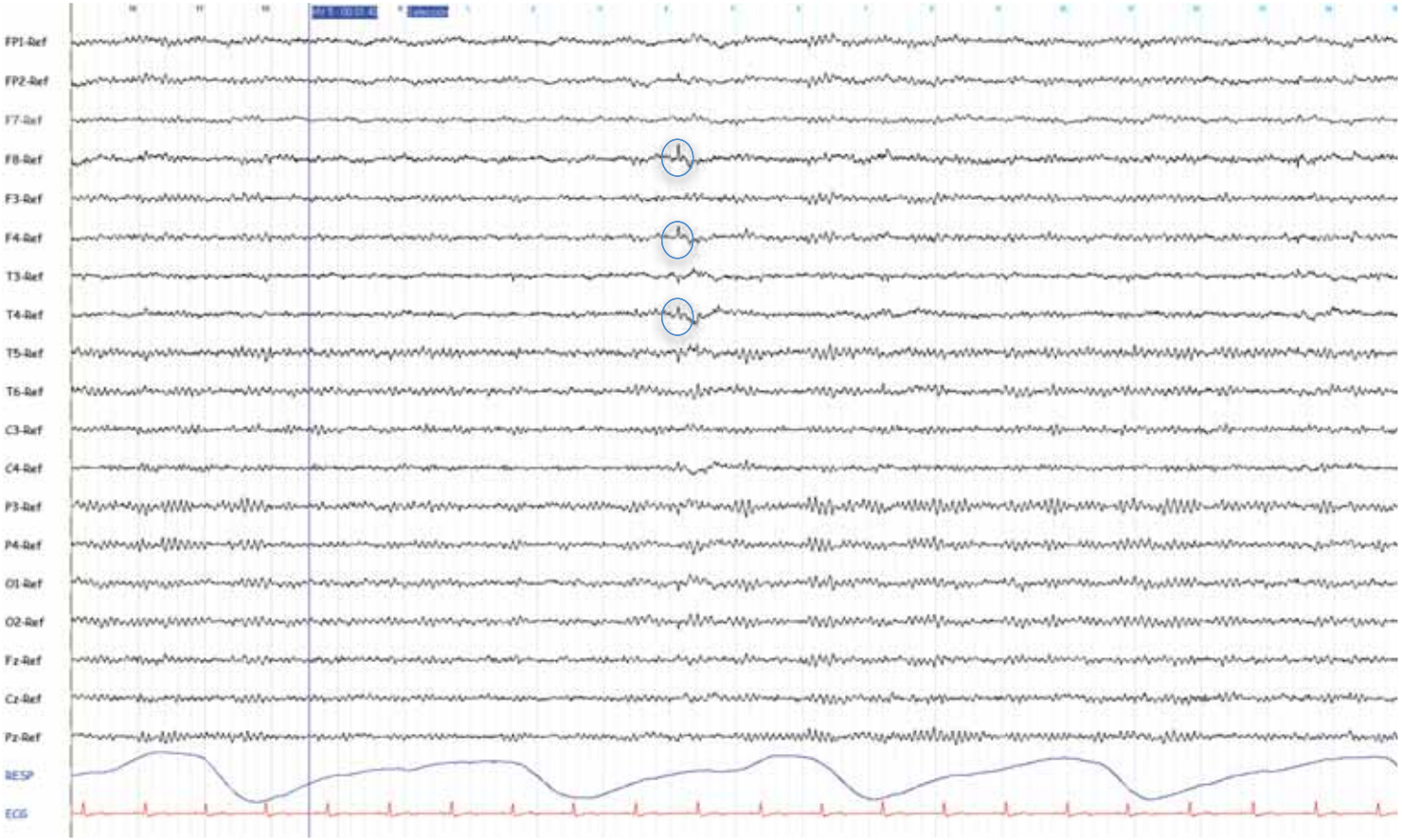


Fig. 1Referential montage. Isolated spike of less than 50 μV in right maximal expression in right inferior frontal region and diffusion to adjacent ones (F8>F4, T4), facilitated by hyperpnoea.

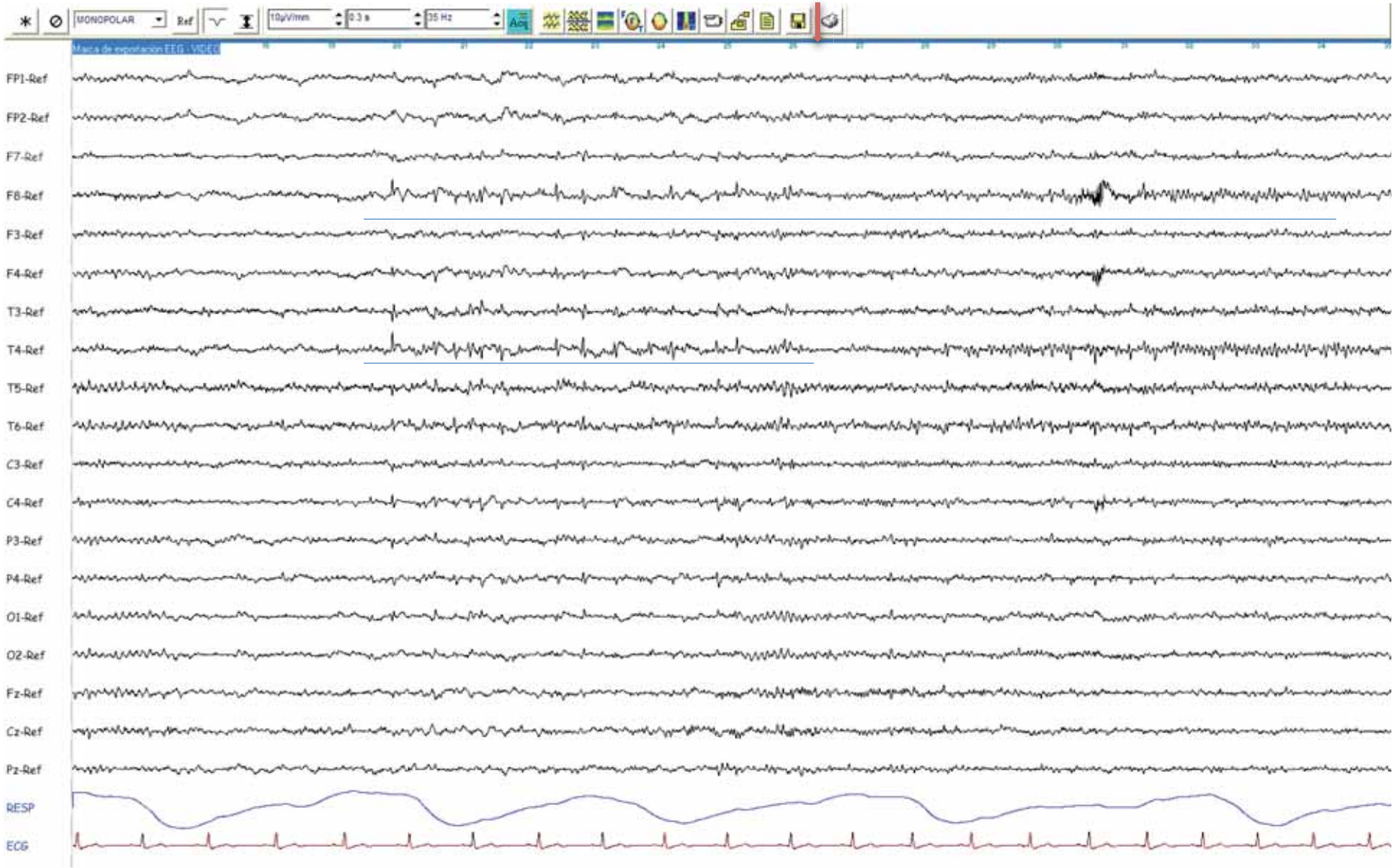


Fig. 2 Referential montage. Increasing spiky activity and ictal onset, with a low amplitude and highly synchronized activity in right inferior frontal region, F8.

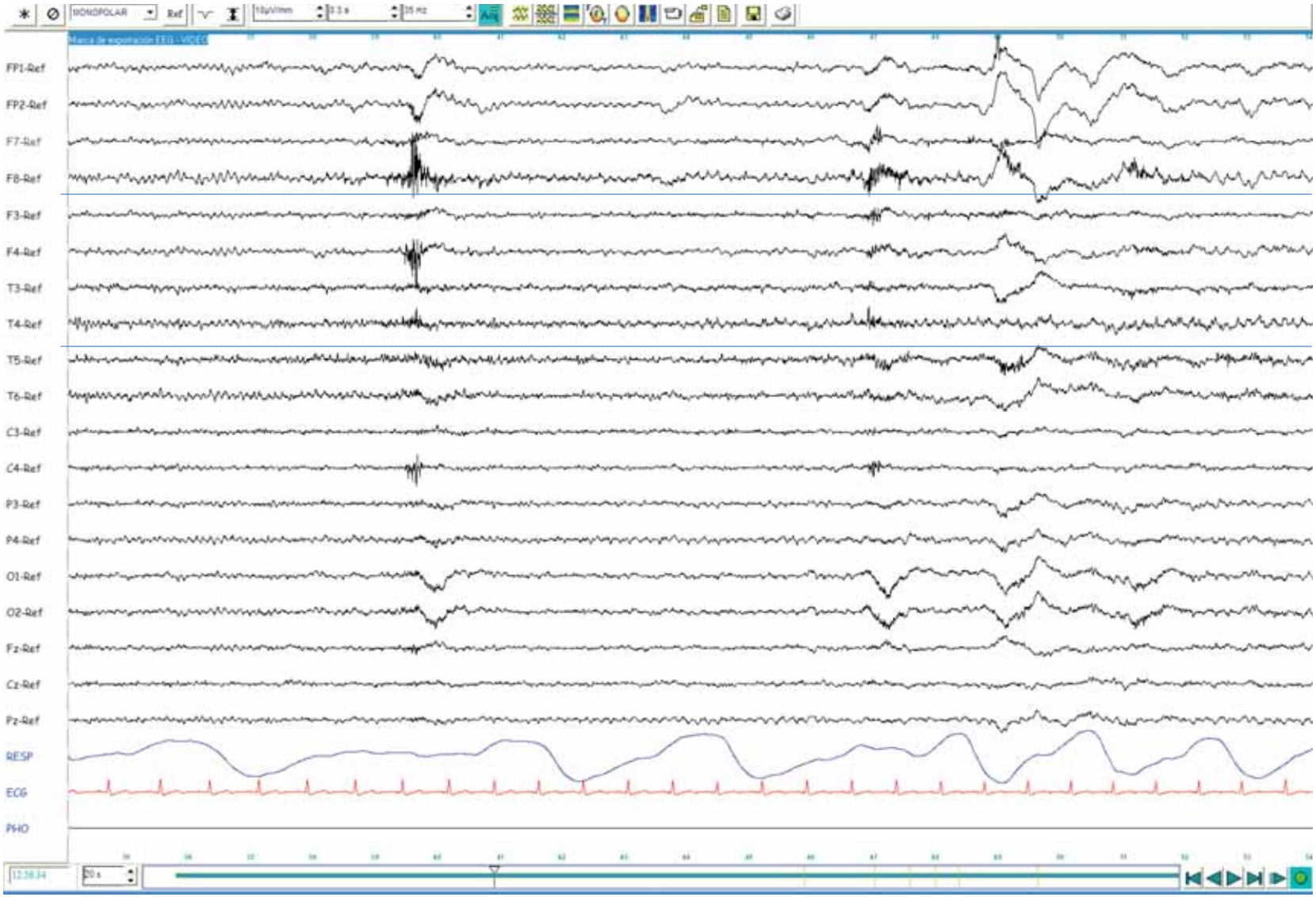


Fig. 3 Referential montage. Increasing diffusion of ictal activity.

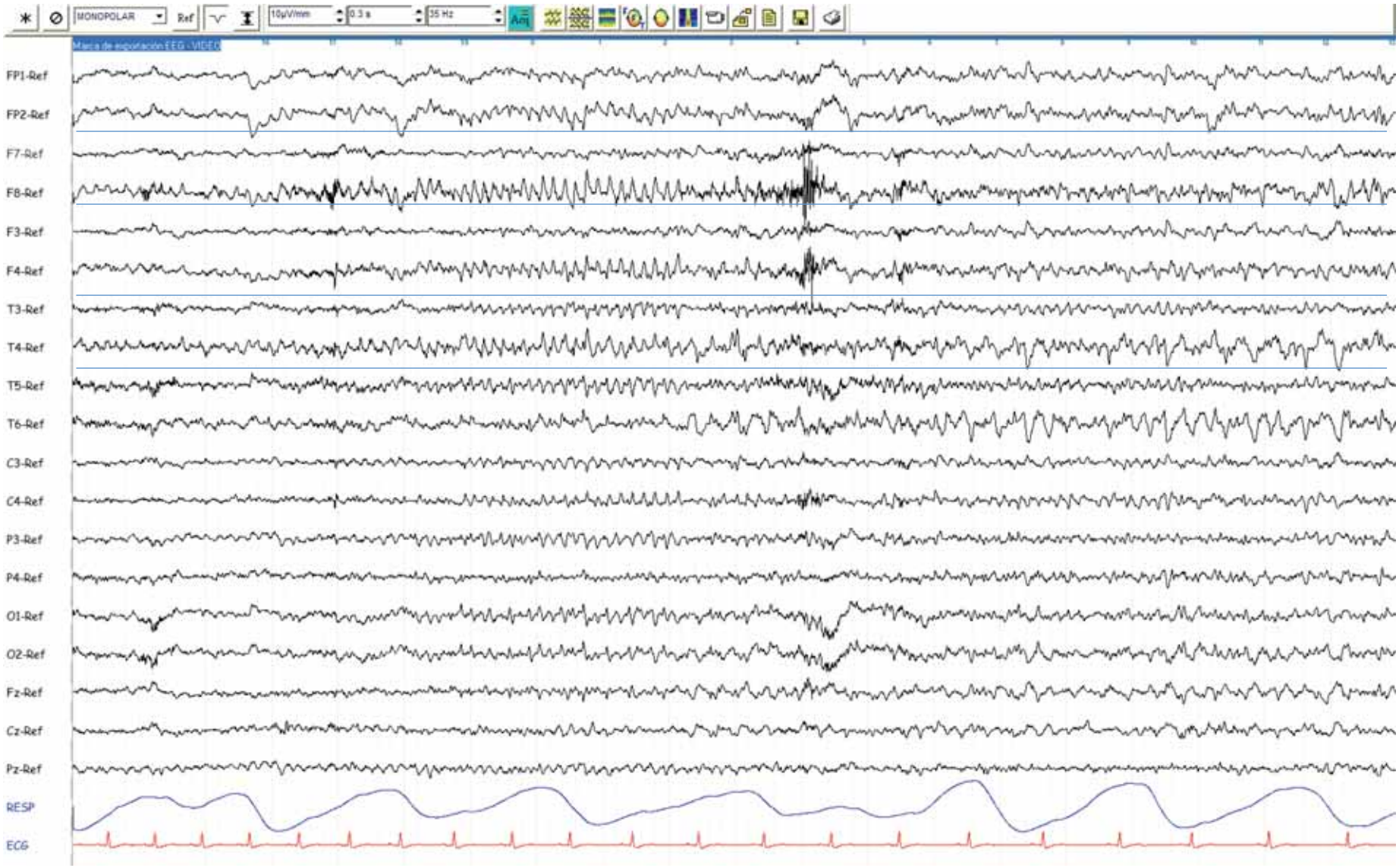


Fig. 4 Referential montage. On-going ictal activity with increasing amplitude and decreasing frequency.

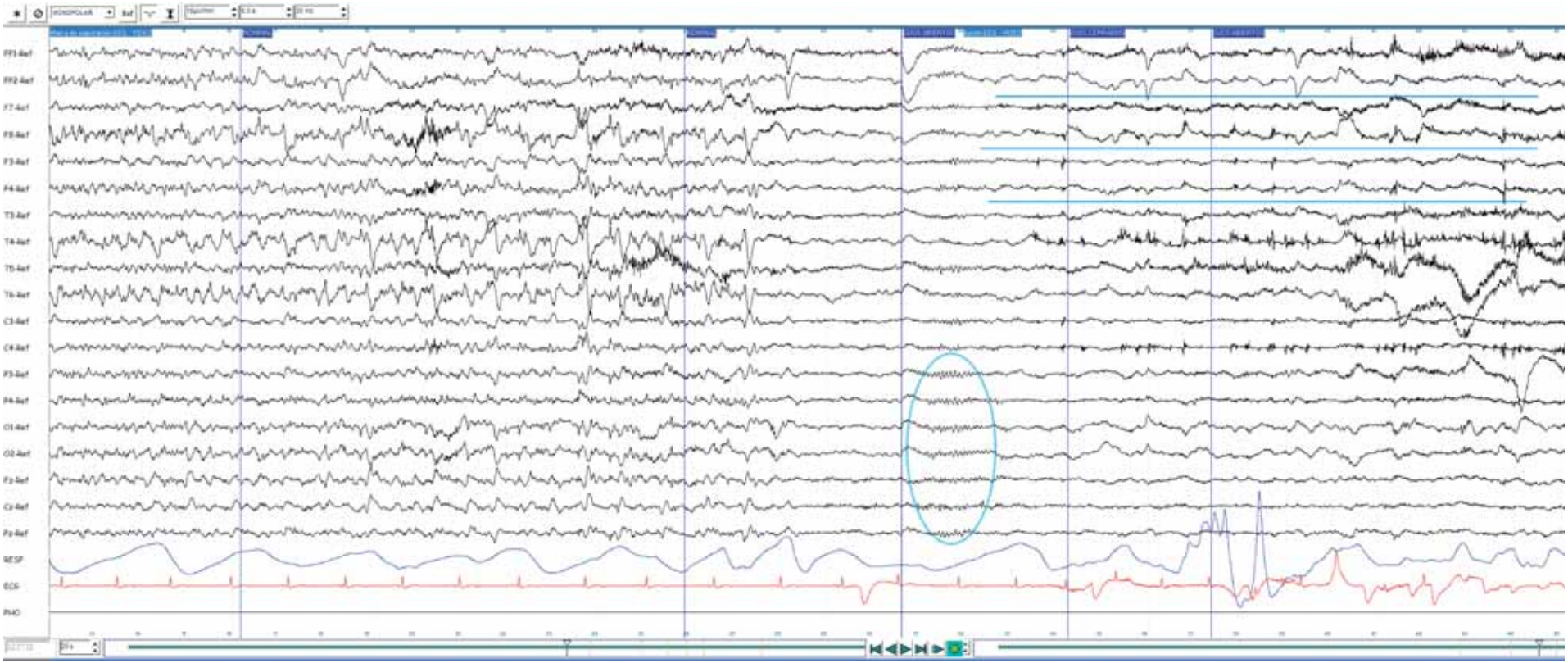


Fig.5 Referential montage. Seizure ending, with prominent slowing over right anterior regions and immediate alpha activity in both posterior regions.

F.D.V.

F.D.V.

Patient who started having seizures at 33 years old after a CVA. MRI show a left frontal vascular malformation, cavernoma. Clinically she presented partial simple seizures with dysphasia and right hypoesthesia.

EEG characteristics:

EEG recording showed irregular and sharp waves with left inferior frontal predominance, which were periodic several times (PLED). During hyperventilation, these waves acquired more rhythmicity, and a higher voltage while clinically the patient had dysphasia and right hypoesthesia.

F.D.V.

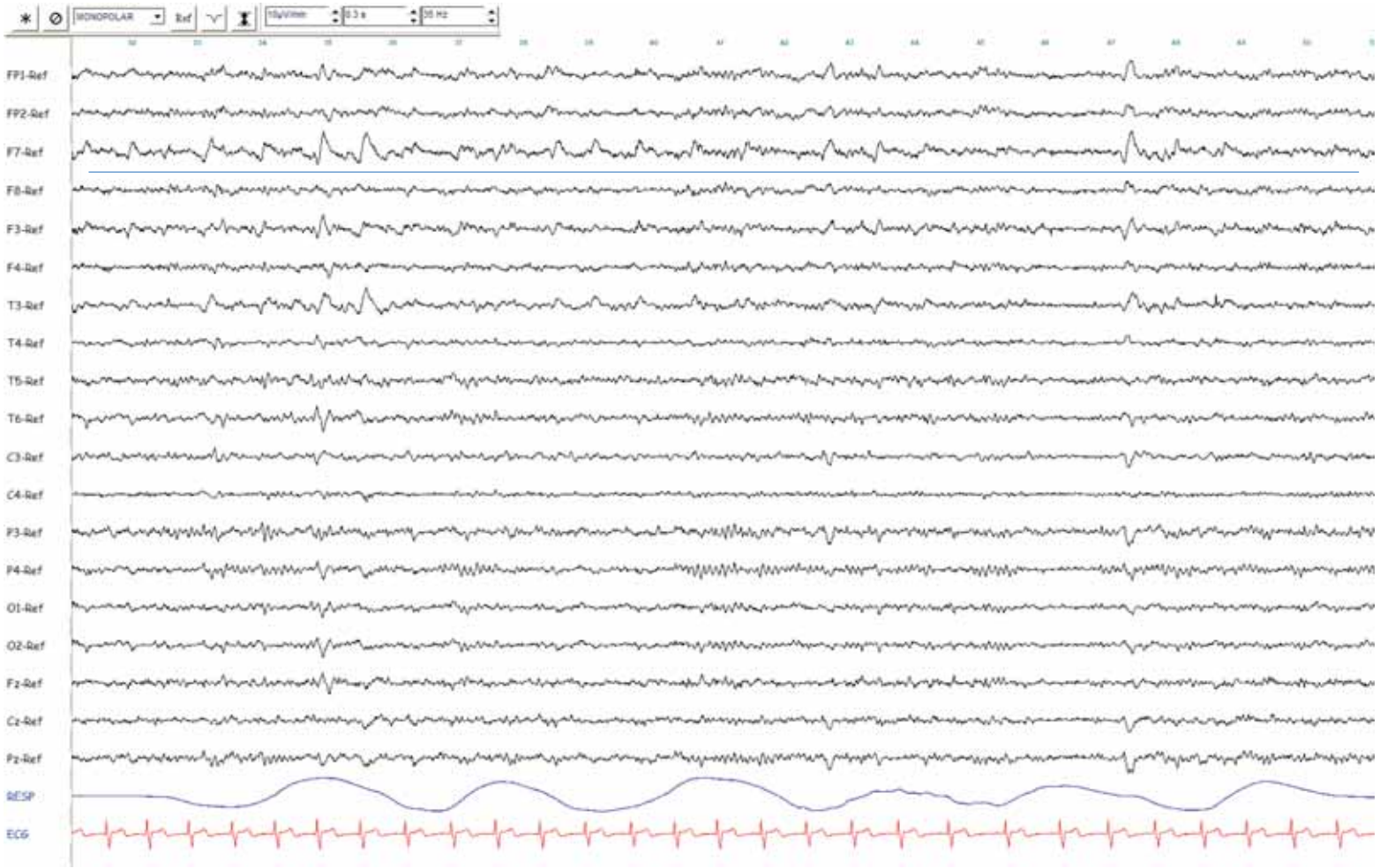


Fig. 1 Referential montage. Irregular slow waves and sharp waves with maximal expression in left inferior frontal, F7.

F.D.V.

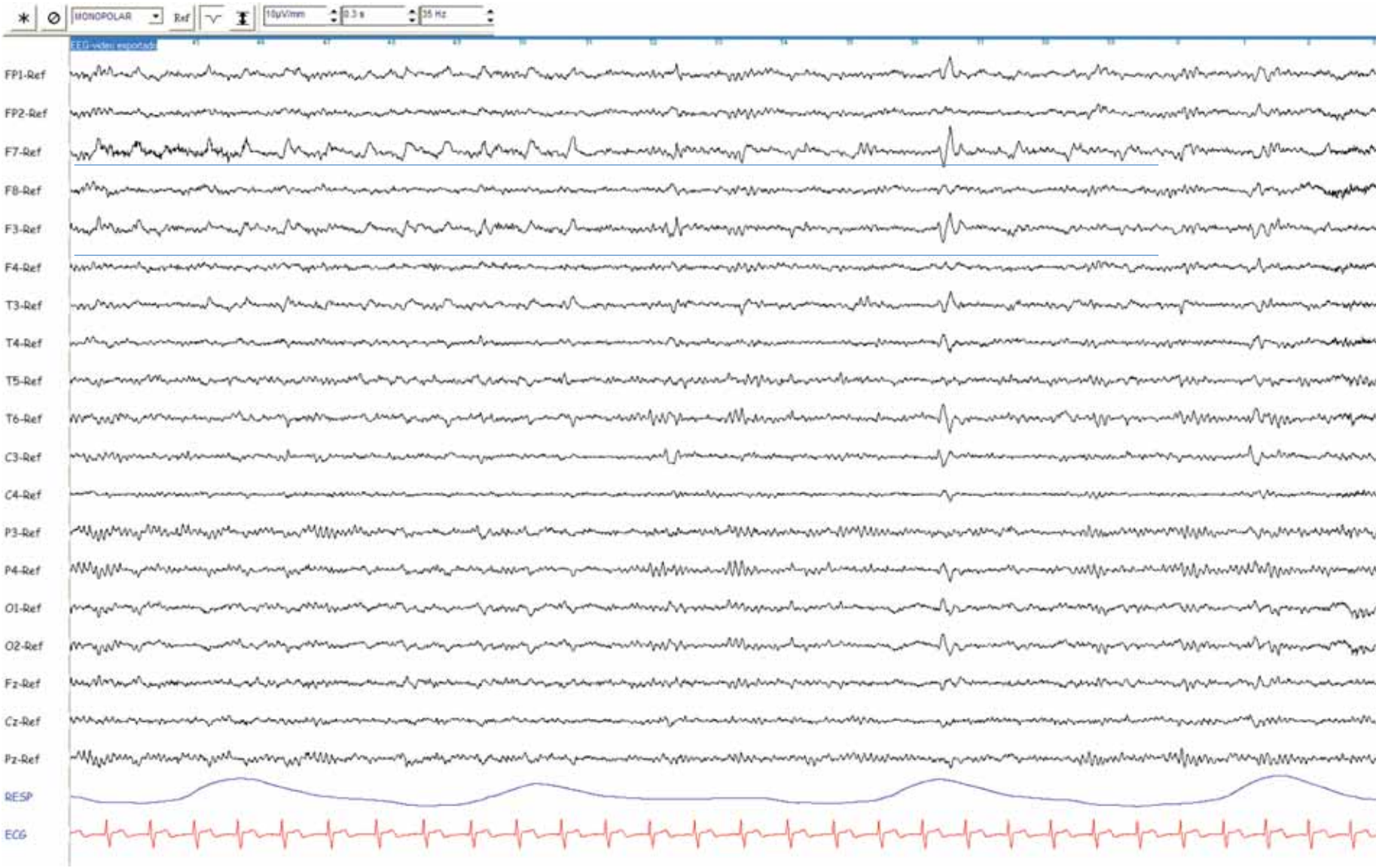


Fig. 2 Referential montage. We can see similar findings as in fig, 1, with left inferior frontal predominance, F7.

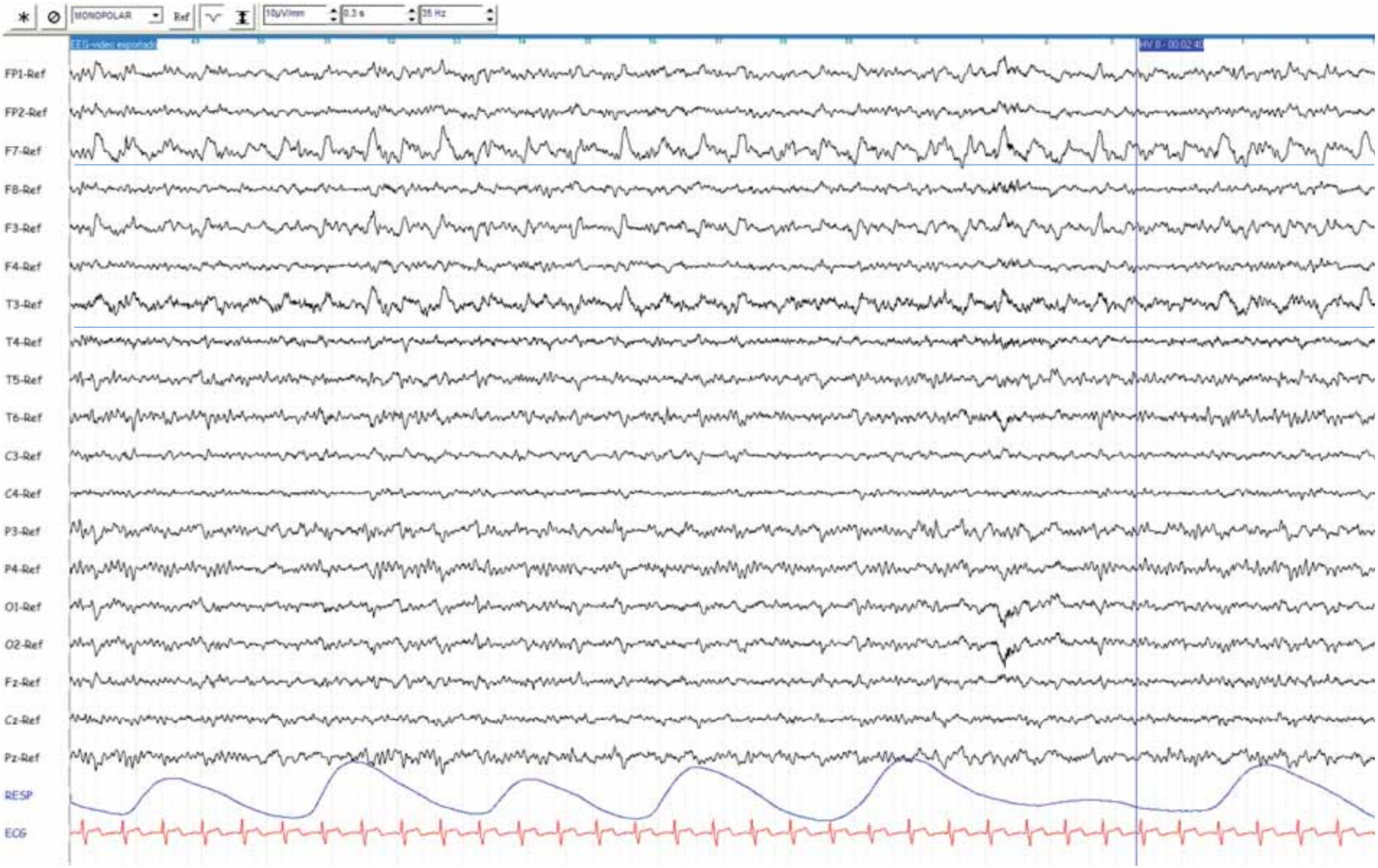


Fig. 3 Hyperventilation increases rhythmicity of the discharges, with language impairment.

S.C.B.

S.C.B.

Patient without any pathologic antecedent who started having seizures at 16 years old. The performed MRI was normal. She referred to have around 5 seizures per month but clinically she was not aware of the high frequency of the seizures, as we could check during the recording. Clinically she remained without moving, with inconstant and mild consciousness impairment, probably in relation to the very short duration of the seizures recorded, of 2-3 seconds and head deviation with more intense seizures.

EEG characteristics:

When the interictal activity is more expressive, it is very difficult to locate the activity so it is necessary to lower the sensitivity and to look for the epochs when the discharges are less active. When more active we can see diphasic sharp waves followed by irregular wave, grouped up in series of up to 15 seconds duration, in both frontal regions, with maximal expression in right front-central region, F4.
We recorded 45 seizures in the same EEG recording, of 70 min. duration. Seizures had a very short duration, as we can see in the recordings, with a synchronized rhythm as short as less than 2 seconds. They appeared isolated and in clusters of several episodes just after a few seconds.

S.C.B.

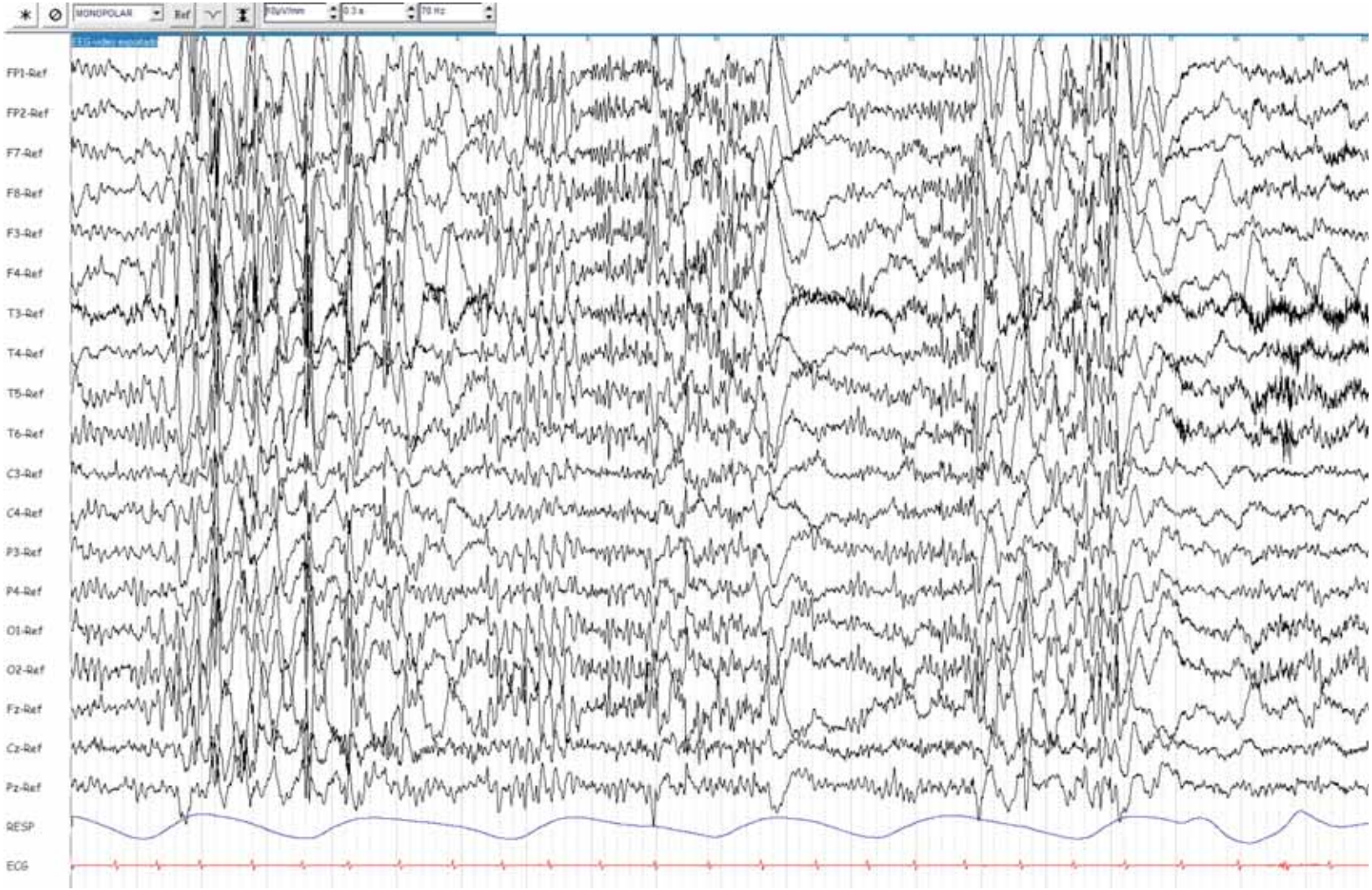


Fig. 1 Referential montage. Interictal activity and short seizure. Great active interictal discharges, with sharp waves of more than 200 μV followed by irregular slow wave difficult to assign a location, and with a short (1 second) synchronized and diffused activity.

S.C.B.

Fig. 2 Referential montage. Same epoch with less sensitivity. We can see some interictal discharges before ictal onset in both frontal regions, with right predominance and maximal expression in fight front central region, F4. Short seizure with a synchronized rhythm at around 19 Hz with frontal predominance and postictal frontal slowing and alpha rhythm in both posterior regions.

S.C.B.

Fig. 3 Referential montage. When the discharges are less active is the occasion for trying to locate the IED, there is a right frontal predominance, with maximal expression in F4 and diffusion to F8, and Fp2.

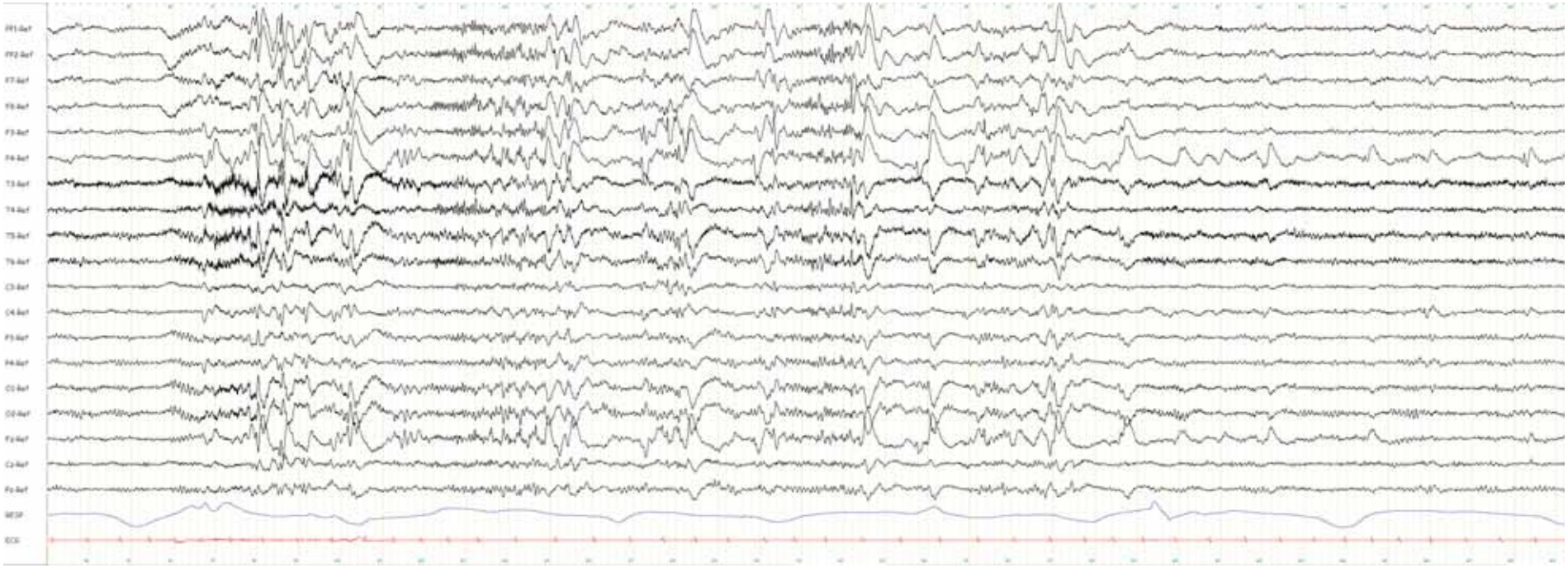


Fig. 4. Characteristically seizures group in clusters.

M.M.J.

M.M.J.

Patient who started having seizures at 9 years old diagnosed as absence epilepsy. Traumatic antecedent at 4 years old. 3 Tesla MRI and PET were normal. Clinically he has complex partial seizures, with fixed sight and, when more intense, jaw movements and generalized movements with enuresis. In spite of multiple treatments in poly-therapy there has never been a good control of seizures

EEG characteristics:

Interictal epileptiform activity was recorded, with bilateral expression of the focus activity, and sometimes with maximal expression in left front-central regions, but most of the times with bilateral appearance, constituted by sharp waves and spikes of 50-200 μV, followed by a slow wave. Ictal recordings show a very low amplitude synchronized rhythm with very diffuse expression. It was not possible to asses a maximal expression of ictal activity at onset.

M.M.J.

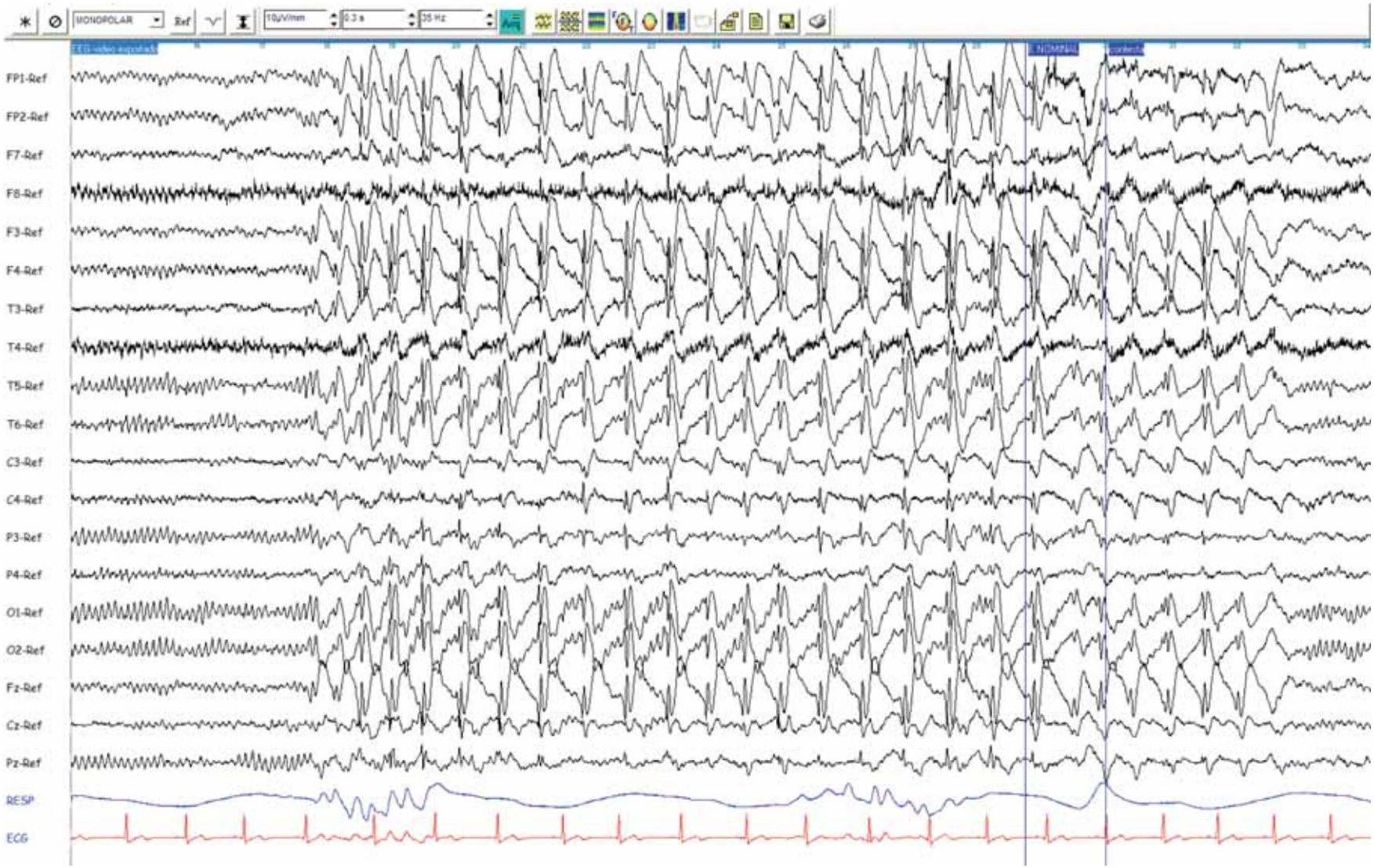


Fig. 1 Referential montage. IED very widespread. This activity can be very difficult to differentiate from generalized one. Consciousness was preserved.

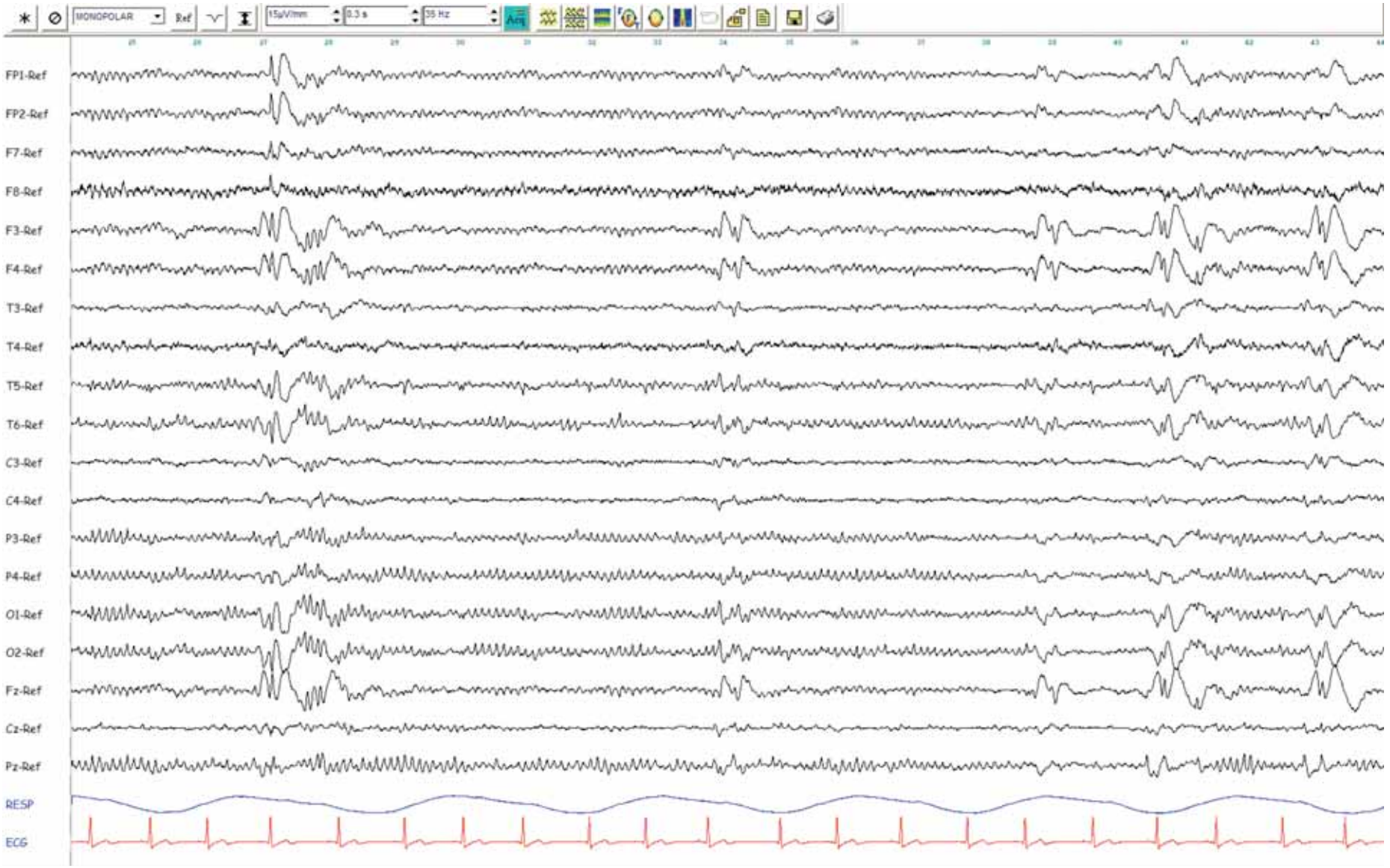


Fig. 2 Referential montage. Front-central interictal epileptiform activity, being impossible to establish an hemisphere dominance for this focus. Due to its location and morphology the differentiation with a generalized paroxistic activity becomes a challenge.

Fig. 3 Referential montage. Widespread interictal activity. **Alpha rhythm over posterior regions**

M.M.J.

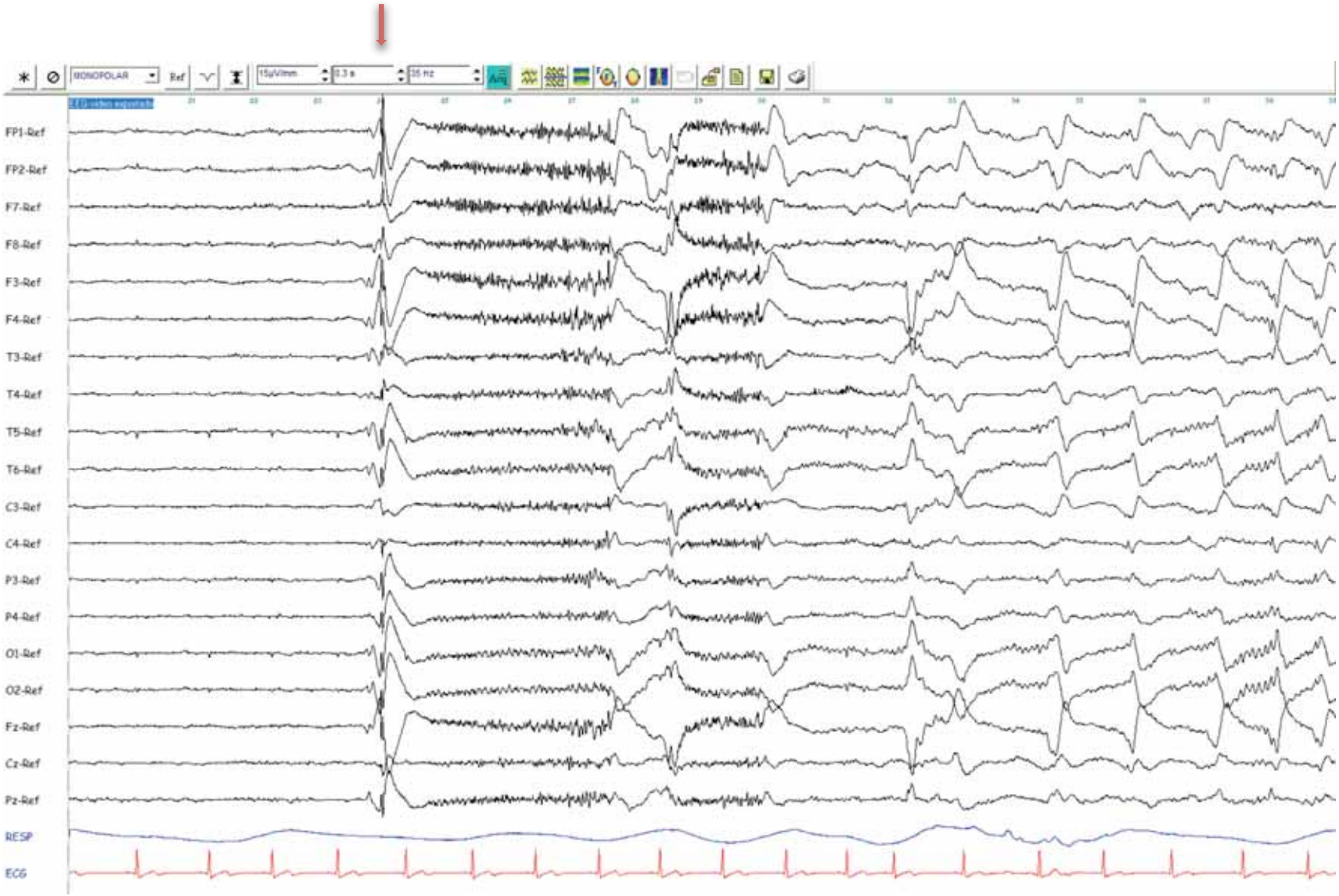


Fig. 4 Ictal activity, with a low amplitude synchronized rhythm preceded by a spike-wave complex. Attenuation at seizure end, with alpha band basal activity in both posterior regions even during seizure and more evident after the seizure, where we can also appreciate anterior slowing, in both frontal regions. The fact of recording a seizure was very useful to asses the focal nature of the case.

M.M.C.

M.M.C.

Patient who started having seizures at 9 years old. He has daily seizures in spite of multiple treatments. Clinically he drops his head with some myoclonic movement.

EEG characteristics:

EEG recordings show isolated sharp waves of 50-100 μV, with maximal expression in frontal electrodes, with predominance in right inferior-frontal region. Sometimes it appears widespread.
Seizures start with a synchronized rhythm, being the maximal synchronization at onset in right inferior-frontal region. Clinically the only manifestation was eyes opening with fixed looking appearance.

M.M.C.

Fig. 1 Referential montage. Isolated sharp wave of 50-100 μV with right frontal predominance, with maximal expression in right inferior-frontal region, F8, and diffusion to both prefrontal Fp2, Fp1 and mid-line frontal region, Fz.

Fig. 2 Referential montage. Sharp waves and spikes, with irregular slow waves in both frontal regions.

M.M.C.

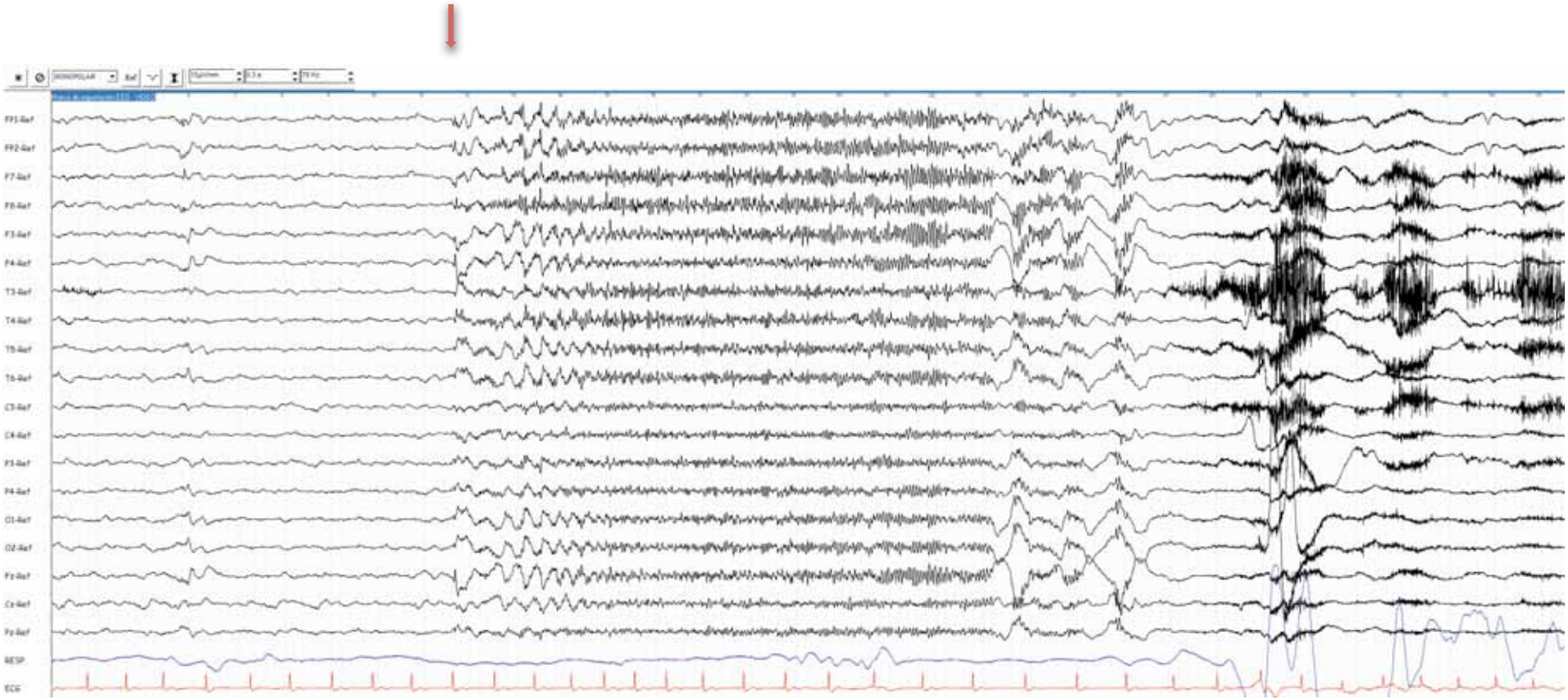


Fig. 3 Referential montage. Ictal activity with synchronized rhythm and postictal global attenuation. The synchronized rhythm blocks the slow waves specially in right inferior frontal regions, F8.

M.M.C.

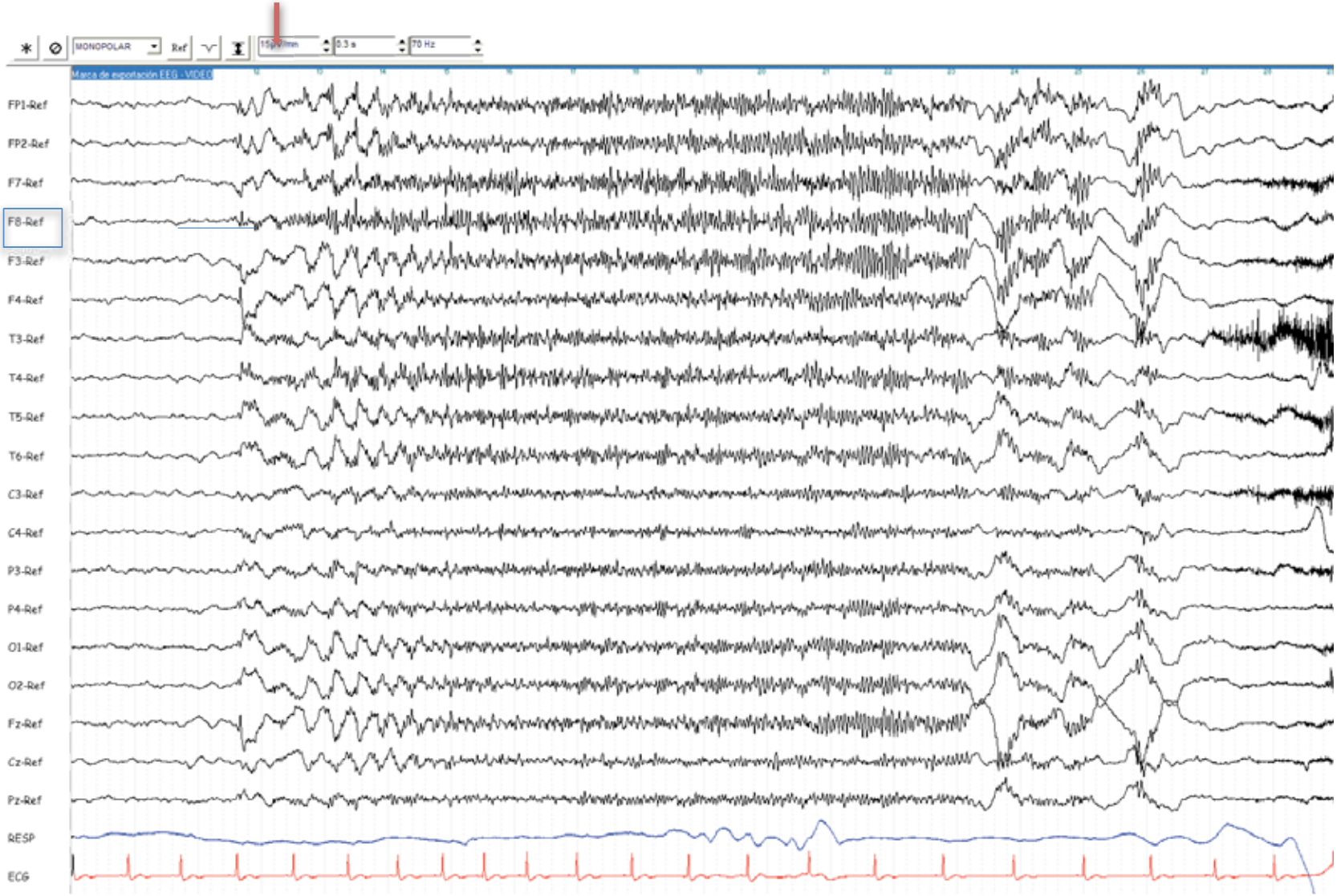


Fig. 4 Ictal activity with synchronized rhythm arising apparently from right inferior-frontal region. Before the ictal rhythm diffund to other region we can see slow waves in both frontal regions. ECK and breathing irregularity.

M.J.S.F.

M.J.S.F.

Patient with fever antecedent of gastrointestinal origin who had apparently a generalized seizure at 39 years old. MRI and TC were normal. The EEG oriented the case as partial seizures. Clinically she presented several episodes, almost clinically silent, some of them in clusters, in which the only manifestation was a slight and inconstant blinking while she referred felling sick, without language impairment and preserved consciousness.

EEG characteristics:

EEG recordings showing spikes of 50-100 μV followed by an irregular slow wave, with maximal expression in right front-central regions. There is diffusion to front-central regions and both pre-frontal regions. The seizures arise with maximal expression in mid-frontal regions, Fz, with right lateralization.

M.J.S.F.

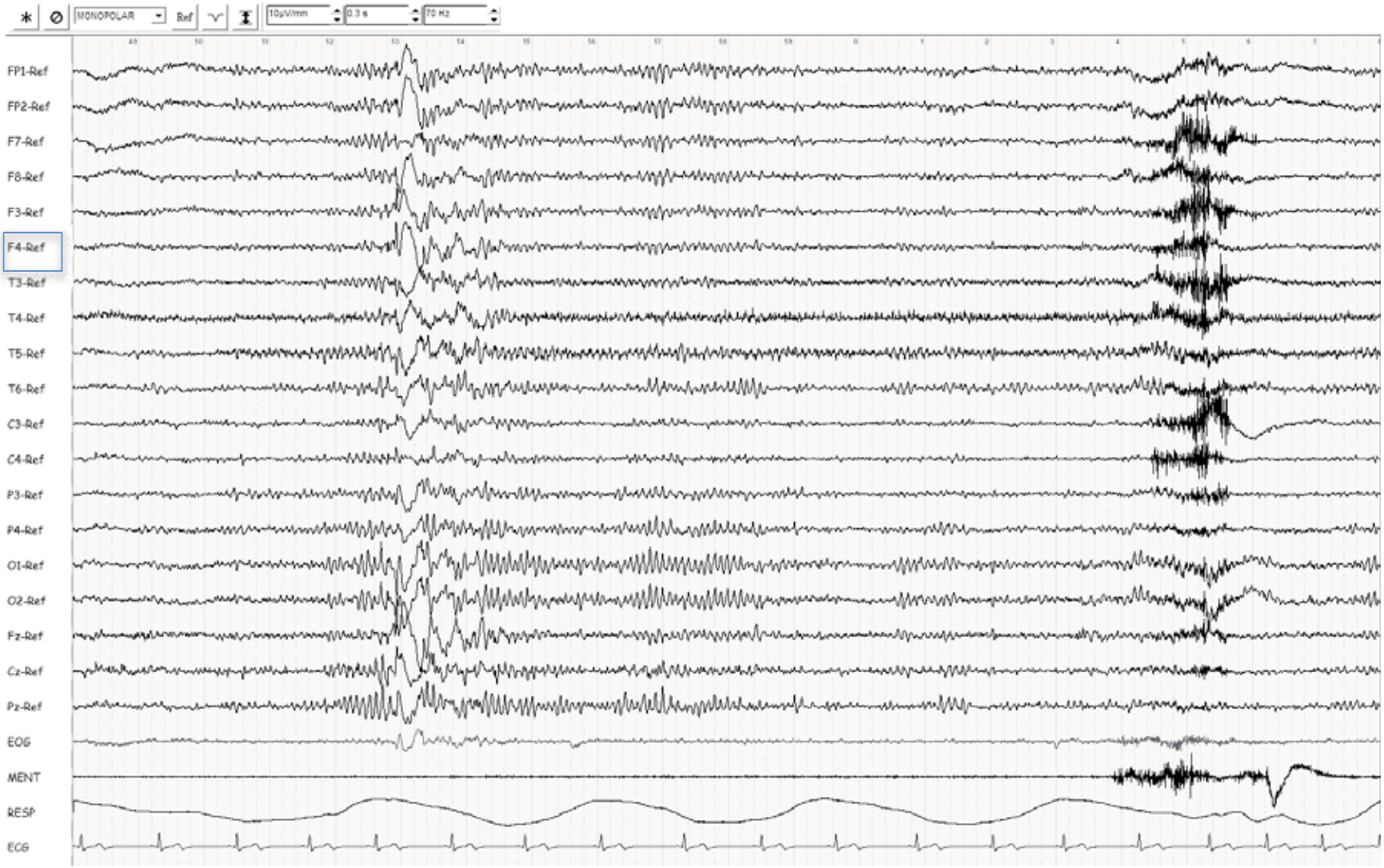


Fig. 1 Referential montage. IED in front-central electrodes, with maximal expression in F4.

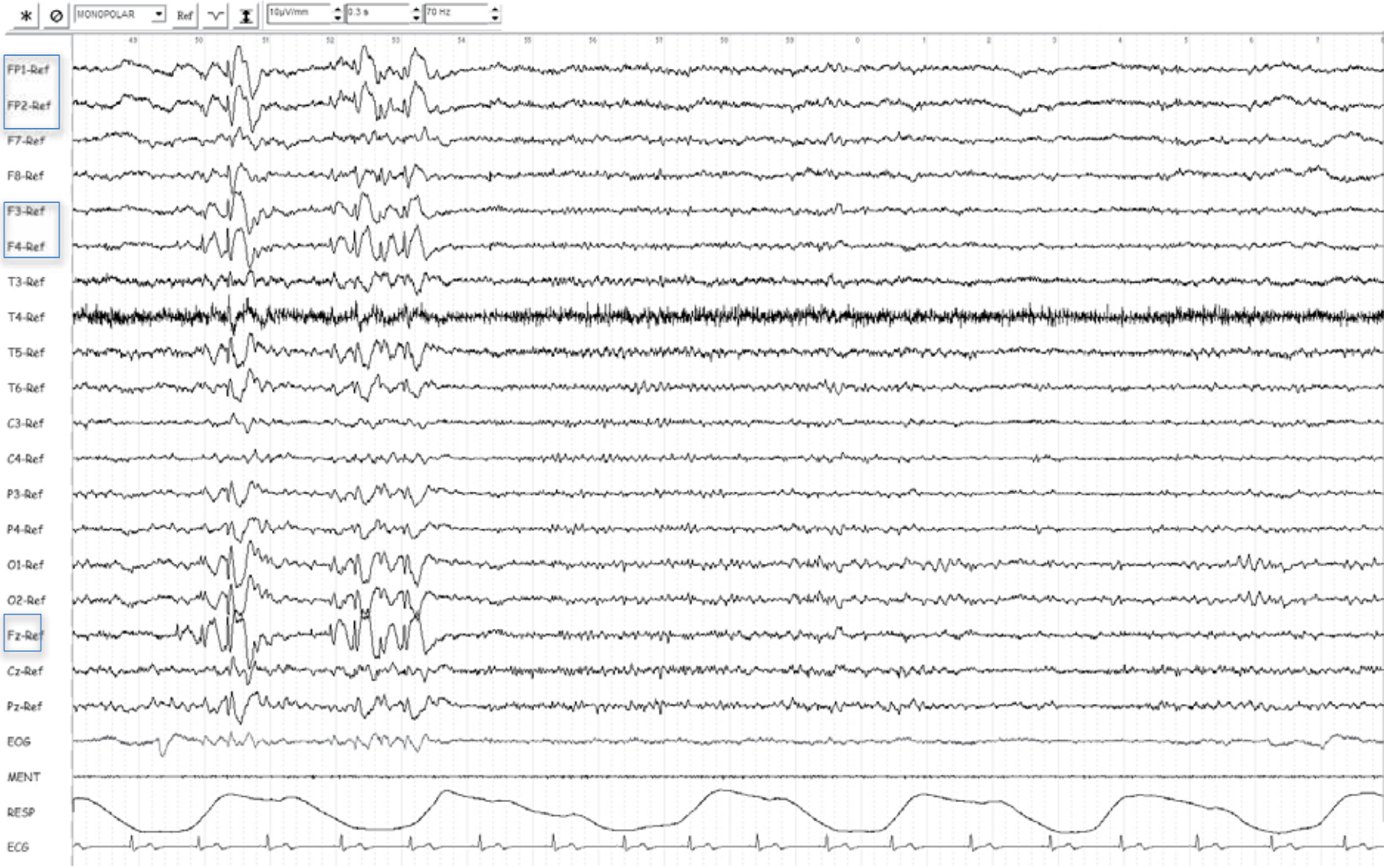


Fig. 2 Referential montage showing more located and also widespread spike-wave activity.

M.J.S.F.

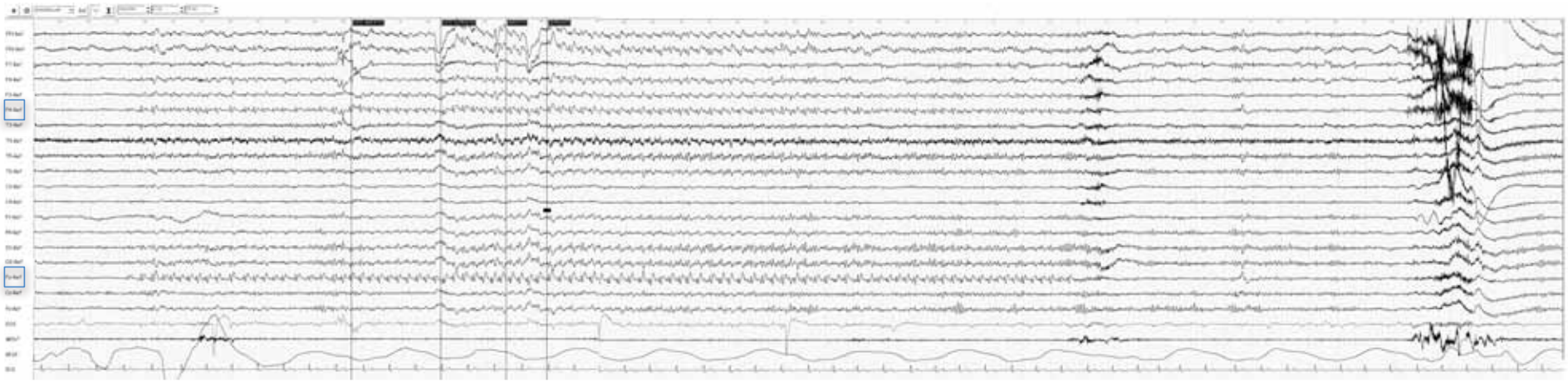


Fig. 3 Referential montage. Ictal activity, with paroxistic activity of spike-wave complex, appearing repetitively and very rhythmic, with slight right dominance, Fz, F4 Clinically the symptoms were very subtle: the patient opened and closed irregularly her eyes and referred a "sick" sensation, with fluent language and preserved consciousness.

Fig. 4 Referential montage. Detailed view of seizure onset, with right front-central predominance (F4).

O.A.Z.

O.A.Z.

Patient who started having seizures at 43 years old. The only antecedent she presented was a TBI at 5 years old. A MRI showed right tumoral lesion and she underwent surgery. Clinically she sighs putting her left foot over the right one, with tachycardia.

EEG characteristics:

EEG recording showed interictal isolated sharp waves of 50-100 μV, as well as diphasic sharp waves followed by an irregular slow wave. Only one seizure has been recorded, with prominent attenuation, global but with right frontal predominance, if we carefully study the epoch at seizure onset.

O.A.Z.

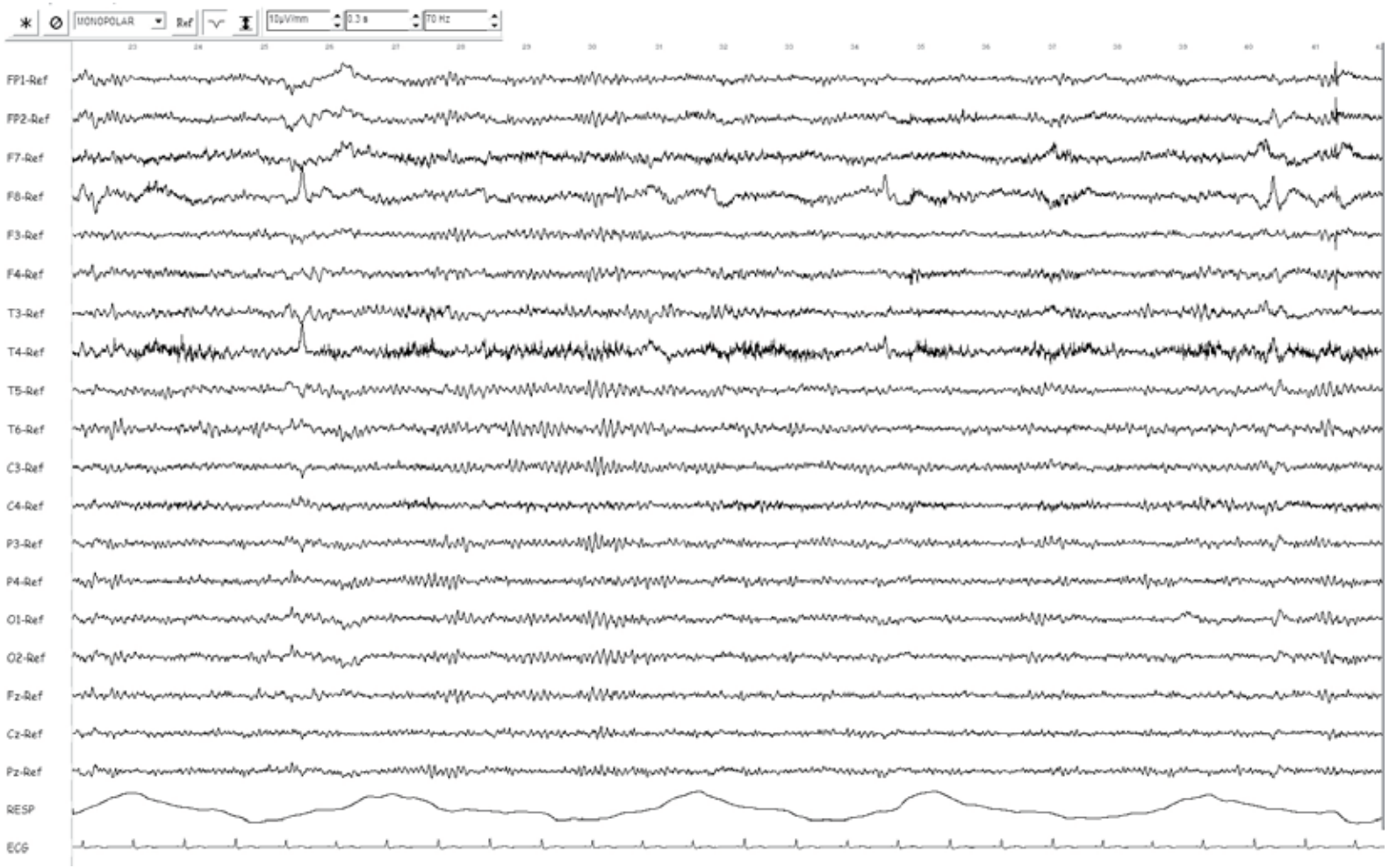


Fig. 1 Referential montage. Isolated sharp wave with maximal expression in right inferior-frontal region and diffusion to right temporal.

O.A.Z.

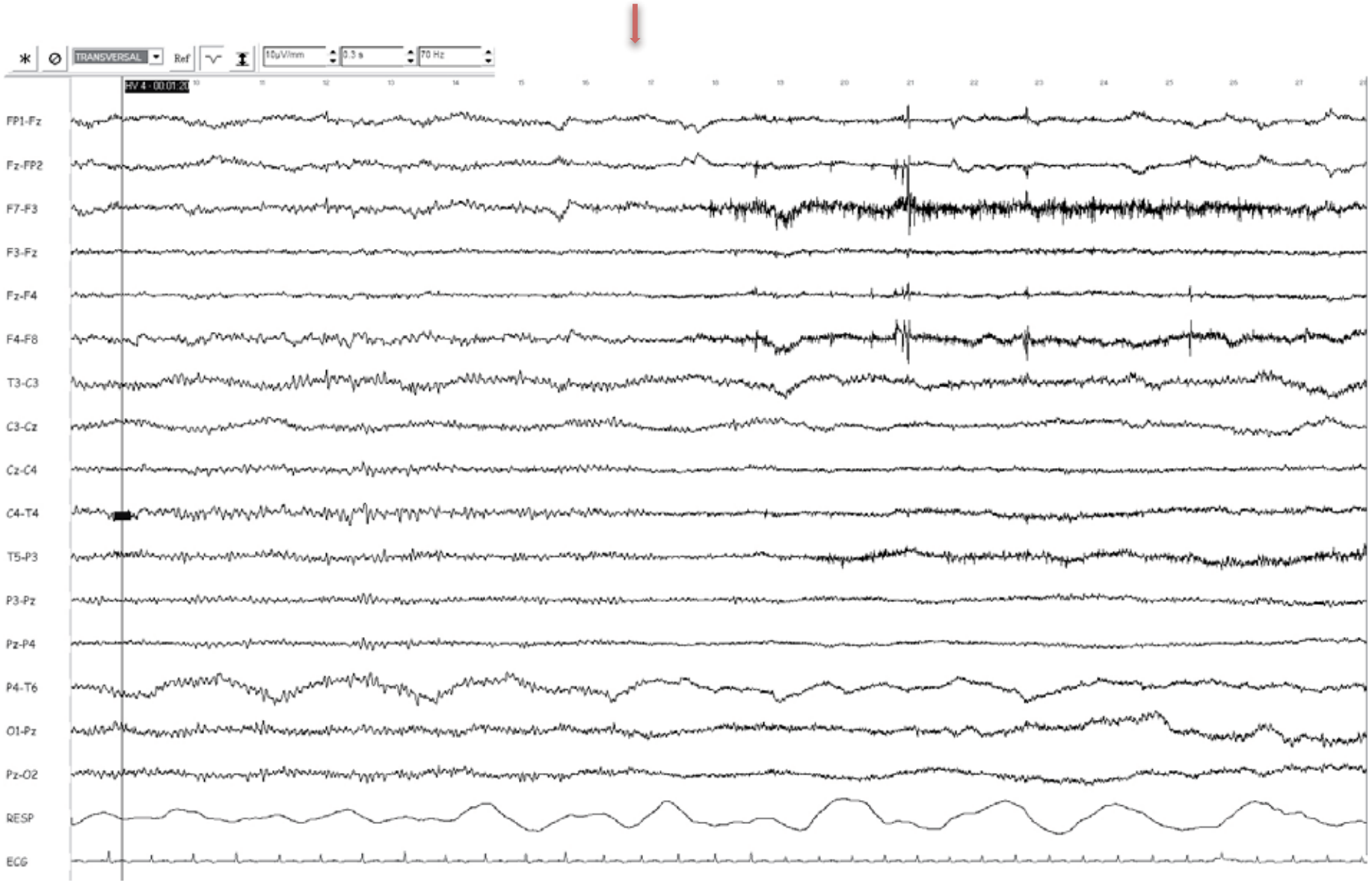


Fig. 2 Transversal montage. Attenuation with frontal predominance and inferior frontal maximal expression facilitated by hyperpnoea at seizure onset. Breathing irregularity and tachycardia.

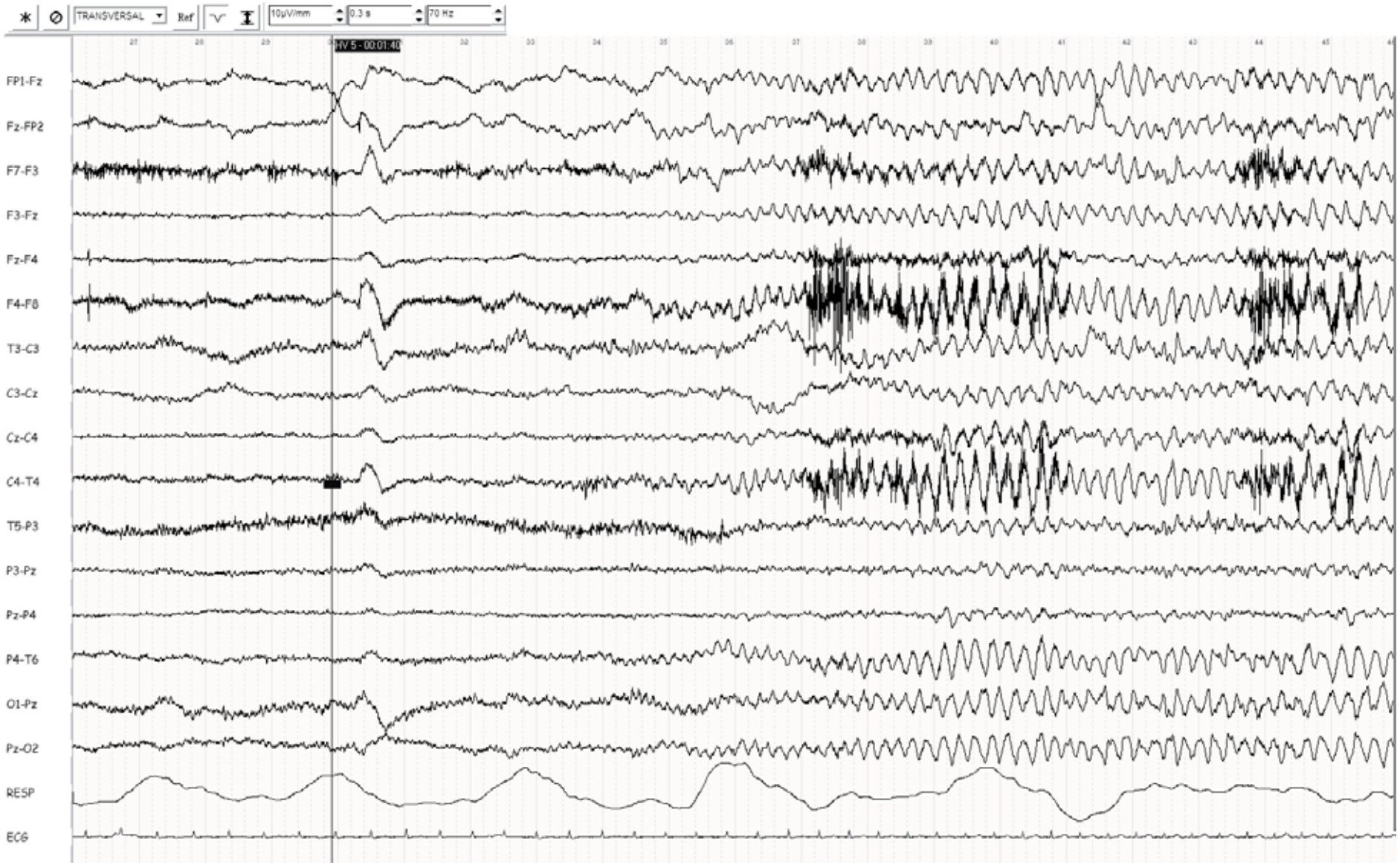


Fig. 3 Transversal montage. 20 seconds later, the ictal activity becomes more evident, with increasing amplitude and decreasing frequencies of waveforms.

Fig. 4 Transversal montage. On-going ictal activity

O.A.Z.

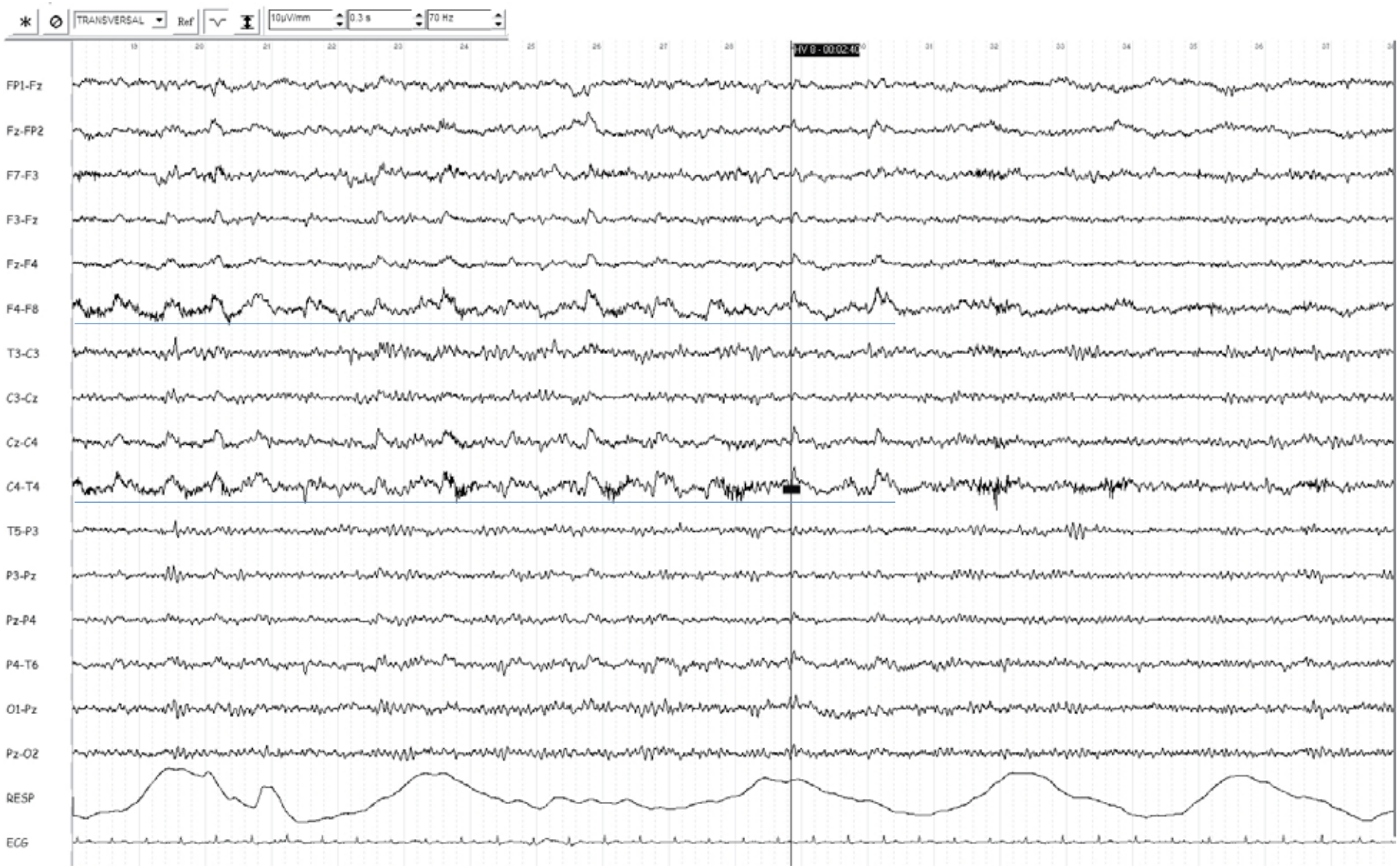


Fig. 5 Transversal montage. On-going seizure, with slowing of ictal frequencies and seizure end with normalization of breathing and ECK signal.

Fig. 6 Referential montage. Very subtle post-ictal slowing in right inferior frontal region, with well structured basal alpha rhythm in posterior regions, with adequate reactivity to eyes opening

STATISTIC APPENDIX

11. STATISTIC APPENDIX

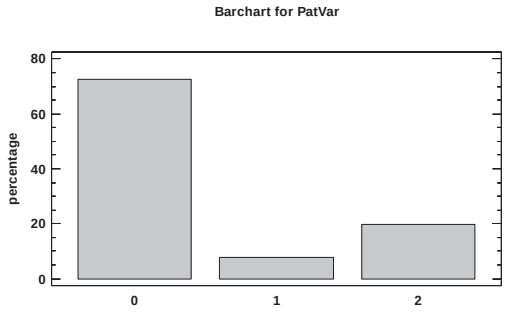
Problem 1: Variability of seizure pattern along time

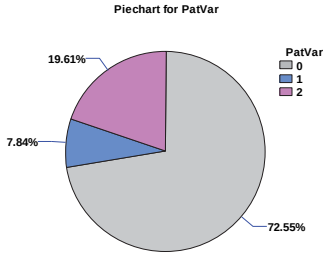
Tabulation - PatVar (CrisisReg=1)

Data variable: PatVar
Selection variable: **CrisisReg=1**

Number of observations: 51
Number of unique values: 3

The StatAdvisor
This procedure counts the number of times each of the 3 unique values of PatVar occurs. It then displays tables and graphs of the tabulation.





Frequency Table for PatVar

			Relative
Class	*Value*	*Frequency*	*Frequency*
1	0	**37**	**0.7255**
2	1	4	0.0784
3	2	10	0.1961

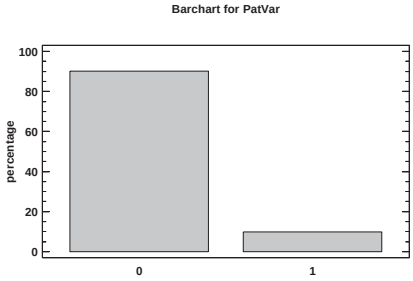
Tabulation - PatVar (CrisisReg=1 & PatVar<>2)

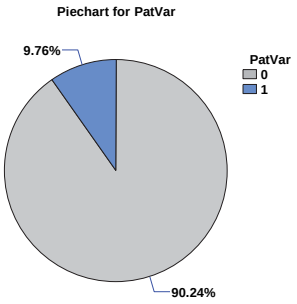
Data variable: PatVar
Selection variable: **CrisisReg=1 & PatVar<>2**

Number of observations: 41
Number of unique values: 2

The StatAdvisor

This procedure counts the number of times each of the 2 unique values of PatVar occurs. It then displays tables and graphs of the tabulation.





Frequency Table for PatVar

			Relative
Class	*Value*	*Frequency*	*Frequency*
1	0	**37**	**0.9024**
2	1	4	0.0976

Hypothesis Tests

Sample proportion = 0.9024
Sample size = 41

Approximate 95.0% confidence interval for p: [**0.768635;0.972752**]

Null Hypothesis: proportion = 0.5
Alternative: not equal
P-Value = 1.16174E-7
Reject the null hypothesis for alpha = 0.05.

The StatAdvisor
This analysis shows the results of performing a hypothesis test concerning the proportion (theta) of a binomial distribution. The two hypotheses to be tested are:

Null hypothesis: theta = 0.5
Alternative hypothesis: theta <> 0.5

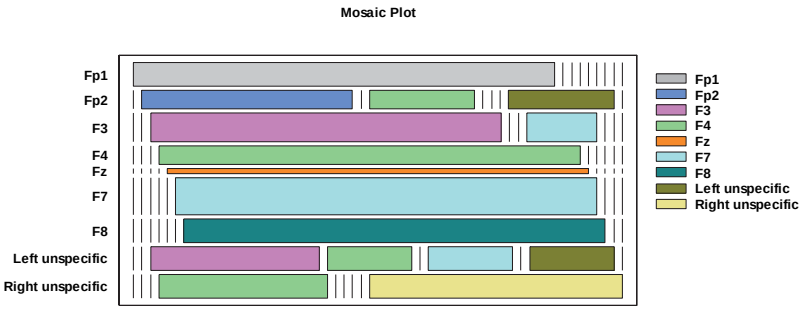
In this sample of 41 observations, the sample proportion equals 0.9024. Since the P-value for the test is less than 0.05, the null hypothesis is rejected at the 95.0% confidence level. The confidence interval shows that the values of theta supported by the data fall between 0.768635 and 0.972752.

Problem 2: Location of focus determines location of seizure onset

Contingency Tables

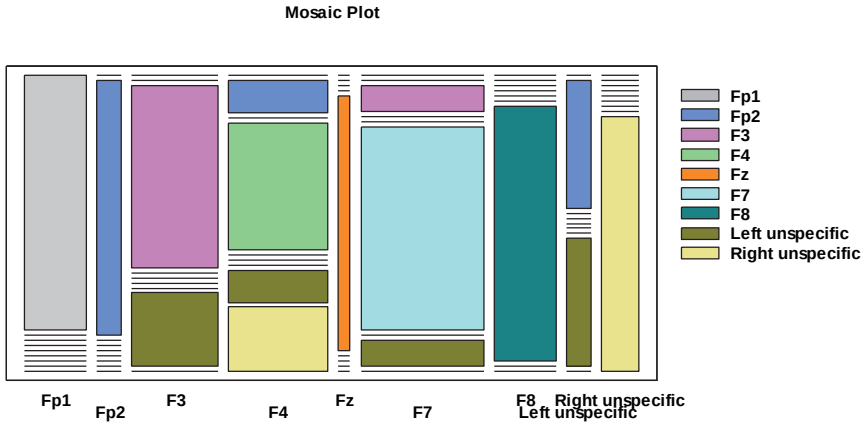
Number of observations: 43
Number of rows: 9
Number of columns: 9
Frequency Table

	Fp1	Fp2	F3	F4	Fz	F7	F8	Left unspecific	Right unspecific	Row Total
Fp1	5	0	0	0	0	0	0	0	0	5
	11.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.63%
Fp2	0	2	0	1	0	0	0	1	0	4
	0.00%	4.65%	0.00%	2.33%	0.00%	0.00%	0.00%	2.33%	0.00%	9.30%
F3	0	0	5	0	0	1	0	0	0	6
	0.00%	0.00%	11.63%	0.00%	0.00%	2.33%	0.00%	0.00%	0.00%	13.95%
F4	0	0	0	4	0	0	0	0	0	4
	0.00%	0.00%	0.00%	9.30%	0.00%	0.00%	0.00%	0.00%	0.00%	9.30%
Fz	0	0	0	0	1	0	0	0	0	1
	0.00%	0.00%	0.00%	0.00%	2.33%	0.00%	0.00%	0.00%	0.00%	2.33%
F7	0	0	0	0	0	8	0	0	0	8
	0.00%	0.00%	0.00%	0.00%	0.00%	18.60%	0.00%	0.00%	0.00%	18.60%
F8	0	0	0	0	0	0	5	0	0	5
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.63%	0.00%	0.00%	11.63%
Left unspecific	0	0	2	1	0	1	0	1	0	5
	0.00%	0.00%	4.65%	2.33%	0.00%	2.33%	0.00%	2.33%	0.00%	11.63%
Right unspecific	0	0	0	2	0	0	0	0	3	5
	0.00%	0.00%	0.00%	4.65%	0.00%	0.00%	0.00%	0.00%	6.98%	11.63%
Column Total	5	2	7	8	1	10	5	2	3	43
	11.63%	4.65%	16.28%	18.60%	2.33%	23.26%	11.63%	4.65%	6.98%	100.00%



Frequency Table

	Fp1	Fp2	F3	F4	Fz	F7	F8	Left unsp	Right unspecific	Row Total
Fp1	5	0	0	0	0	0	0	0	0	5
	100.%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Fp2	0	2	0	1	0	0	0	1	0	4
	0.00%	50.00%	0.00%	25.00%	0.00%	0.00%	0.00%	25.00%	0.00%	100.00%
F3	0	0	5	0	0	1	0	0	0	6
	0.00%	0.00%	83.33%	0.00%	0.00%	16.67%	0.00%	0.00%	0.00%	100.00%
F4	0	0	0	4	0	0	0	0	0	4
	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Fz	0	0	0	0	1	0	0	0	0	1
	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
F7	0	0	0	0	0	8	0	0	0	8
	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
F8	0	0	0	0	0	0	5	0	0	5
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%
Left unspecific	0	0	2	1	0	1	0	1	0	5
	0.00%	0.00%	40.00%	20.00%	0.00%	20.00%	0.00%	20.00%	0.00%	100.00%
Right unspecific	0	0	0	2	0	0	0	0	3	5
	0.00%	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	60.00%	100.00%



Frequency Table

	Fp1	Fp2	F3	F4	Fz	F7	F8	Left unspecific	Right unspecific	Row Total
Fp1	5	0	0	0	0	0	0	0	0	5
	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.63%
Fp2	0	2	0	1	0	0	0	1	0	4
	0.00%	100.00%	0.00%	12.50%	0.00%	0.00%	0.00%	50.00%	0.00%	9.30%
F3	0	0	5	0	0	1	0	0	0	6
	0.00%	0.00%	71.43%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	13.95%
F4	0	0	0	4	0	0	0	0	0	4
	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9.30%

Fz	0	0	0	0	1	0	0	0	0	1
	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	2.33%
F7	0	0	0	0	0	8	0	0	0	8
	0.00%	0.00%	0.00%	0.00%	0.00%	80.00%	0.00%	0.00%	0.00%	18.60%
F8	0	0	0	0	0	0	5	0	0	5
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	11.63%
Left unspecific	0	0	2	1	0	1	0	1	0	5
	0.00%	0.00%	28.57%	12.50%	0.00%	10.00%	0.00%	50.00%	0.00%	11.63%
Right unspecific	0	0	0	2	0	0	0	0	3	5
	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	100.00%	11.63%
Column Total	5	2	7	8	1	10	5	2	3	43
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Summary Statistics

		With Rows	*With Columns*
Statistic	*Symmetric*	*Dependent*	*Dependent*
Lambda	0.7500	0.7429	**0.7576**
Uncertainty Coeff.	0.7826	0.7621	0.8043
Somer's D	0.6168	0.6263	0.6077
Eta		0.7718	0.8071

Statistic	*Value*	*P-Value*	*Df*
Contingency Coeff.	0.9202		
Cramer's V	0.8312		
Conditional Gamma	0.6469		
Pearson's R	0.6666	**0.0000**	41
Kendall's Tau b	0.6169	**0.0000**	
Kendall's Tau c	0.5975		

The StatAdvisor

The statistics shown here measure the degree of association between rows and columns. Of particular interest are the contingency coefficient and lambda, which measure the degree of association on a scale of 0 to 1. Lambda measures how useful the row (or column) factor is in predicting the other factor. For example, the value of lambda with columns dependent equals 0.757576. This means that there is a 75.7576% reduction in error when rows are used to predict columns. For those statistics with P values, P values less than 0.05 indicate a significant association between rows and columns at the 95% confidence level.

Problem 3: Analysis of morphological characteristics at seizure onset by location of seizure onset

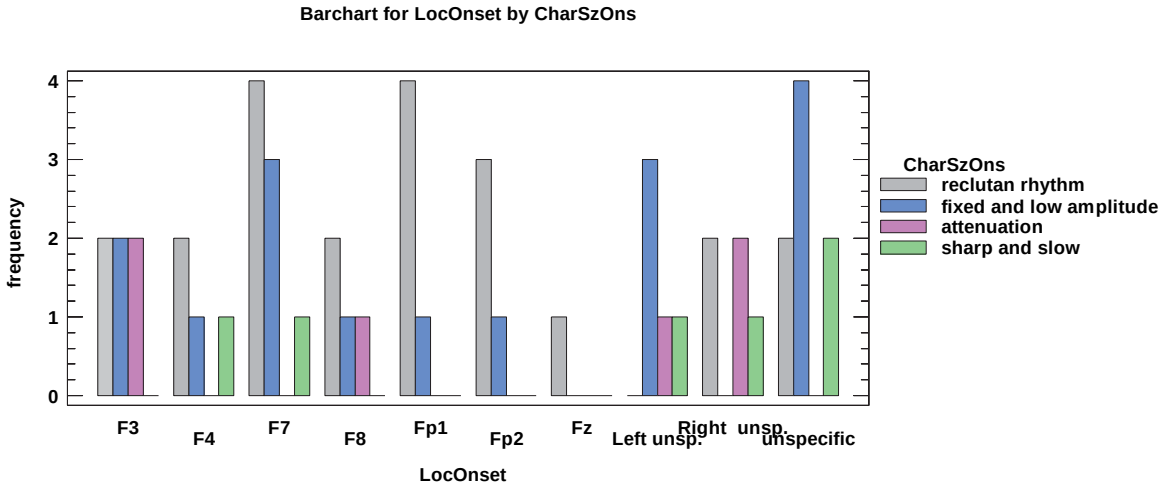
Regarding individual electrode positions

Crosstabulation - LocOnset by CharSzOns

Row variable: LocOnset
Column variable: CharSzOns

Number of observations: 50
Number of rows: 10
Number of columns: 4

The StatAdvisor
This procedure constructs a two-way table showing the frequency of occurrence of unique pairs of values for LocOnset and CharSzOns. It constructs a 10 by 4 contingency table for the data and displays the results in various ways. Of particular interest are the tests for independence between rows and columns, which you can select from the list of Tabular Options.



Frequency Table for LocOnset by CharSzOns

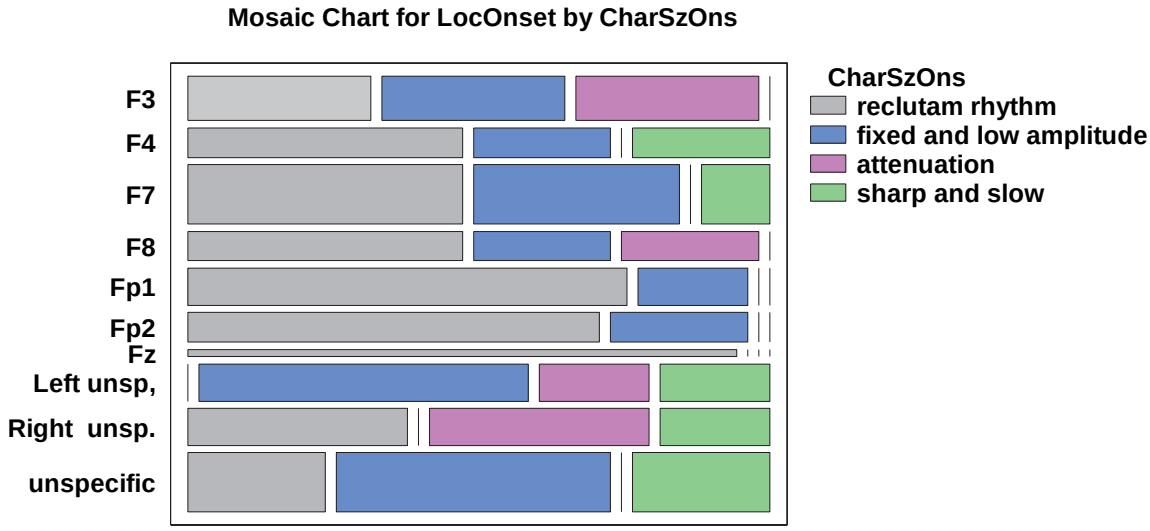
	0	1	2	3	Row Total
F3	2	2	2	0	6
	33.33%	33.33%	33.33%	0.00%	12.00%
F4	2	1	0	1	4
	50.00%	25.00%	0.00%	25.00%	8.00%
F7	4	3	0	1	8
	50.00%	37.50%	0.00%	12.50%	16.00%
F8	2	1	1	0	4
	50.00%	25.00%	25.00%	0.00%	8.00%
Fp1	4	1	0	0	5
	80.00%	20.00%	0.00%	0.00%	10.00%
Fp2	3	1	0	0	4
	75.00%	25.00%	0.00%	0.00%	8.00%
Fz	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	2.00%
Left unspecific	0	3	1	1	5
	0.00%	60.00%	20.00%	20.00%	10.00%
Right unspecific	2	0	2	1	5
	40.00%	0.00%	40.00%	20.00%	10.00%
unspecific	2	4	0	2	8

	25.00%	50.00%	0.00%	25.00%	16.00%
Column Total	22	16	6	6	50
	44.00%	32.00%	12.00%	12.00%	100.00%

Cell contents:
Observed frequency
Percentage of row

The StatAdvisor

This table shows how often the 10 values of LocOnset occur together with each of the 4 values of CharSzOns. The first number in each cell of the table is the count or frequency. The second number shows that cell's percentage of the row in which it falls. For example, there were 2 times when LocOnset equaled F3 and CharSzOns equaled 0. This represents 33.3333% of the 6 times when LocOnset equaled F3.



Tests of Independence

Test	*Statistic*	*Df*	*P-Value*
Chi-Square	25.260	27	**0.5599**

Warning: some expected cell counts < 5.

The StatAdvisor

This table shows the results of a hypothesis test run to determine whether or not to reject the idea that the row and column classifications are independent. Since the P-value is greater than or equal to 0.05, we cannot reject the hypothesis that rows and columns are independent at the 95.0% confidence level. Therefore, the observed value of LocOnset for a particular case may bear no relation to its value for CharSzOns.

Summary Statistics

		With Rows	*With Columns*
Statistic	*Symmetric*	*Dependent*	*Dependent*
Lambda	0.1286	0.0952	**0.1786**
Uncertainty Coeff.	0.1847	0.1438	0.2581
Somer's D	0.1138	0.1315	0.1004
Eta		0.1891	0.4394

Statistic	*Value*	*P-Value*	*Df*
Contingency Coeff.	0.5793		
Cramer's V	0.4104		
Conditional Gamma	0.1459		
Pearson's R	0.1510	**0.2952**	48
Kendall's Tau b	0.1149	**0.3169**	
Kendall's Tau c	0.1184		

The StatAdvisor

The statistics shown here measure the degree of association between rows and columns. Of particular interest are the contingency coefficient and lambda, which measure the degree of association on a scale of 0 to 1. Lambda measures how useful the row (or column) factor is in predicting the other factor. For example, the value of lambda with

columns dependent equals 0.178571. This means that there is a 17.8571% reduction in error when LocOnset is used to predict CharSzOns. For those statistics with P values, P values less than 0.05 indicate a significant association between rows and columns at the 95% confidence level.

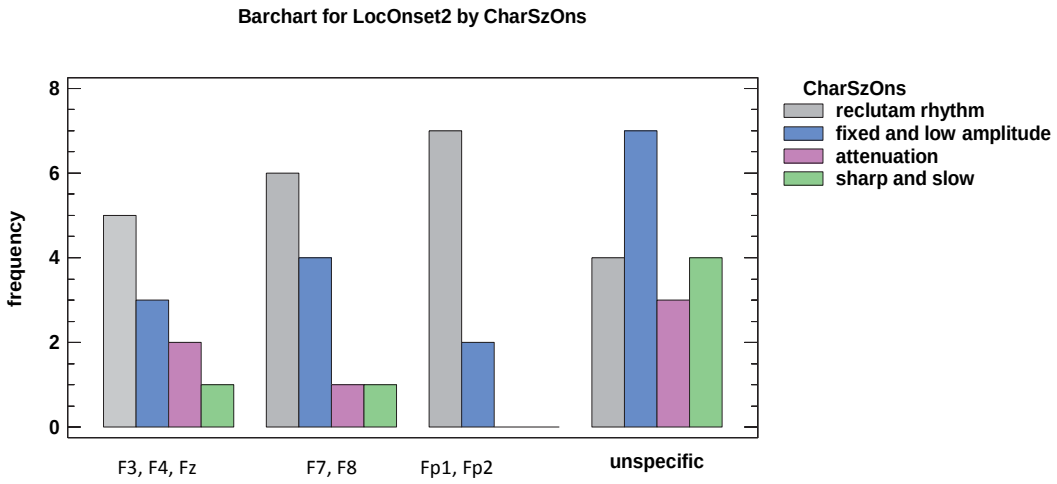
Regarding homologue regions

Tabulación Cruzada - LocOnset2 por CharSzOns
Crosstabulation - LocOnset2 by CharSzOns

Row variable: LocOnset2
Column variable: CharSzOns

Number of observations: 50
Number of rows: 4
Number of columns: 4

The StatAdvisor
This procedure constructs a two-way table showing the frequency of occurrence of unique pairs of values for LocOnset2 and CharSzOns. It constructs a 4 by 4 contingency table for the data and displays the results in various ways. Of particular interest are the tests for independence between rows and columns, which you can select from the list of Tabular Options.



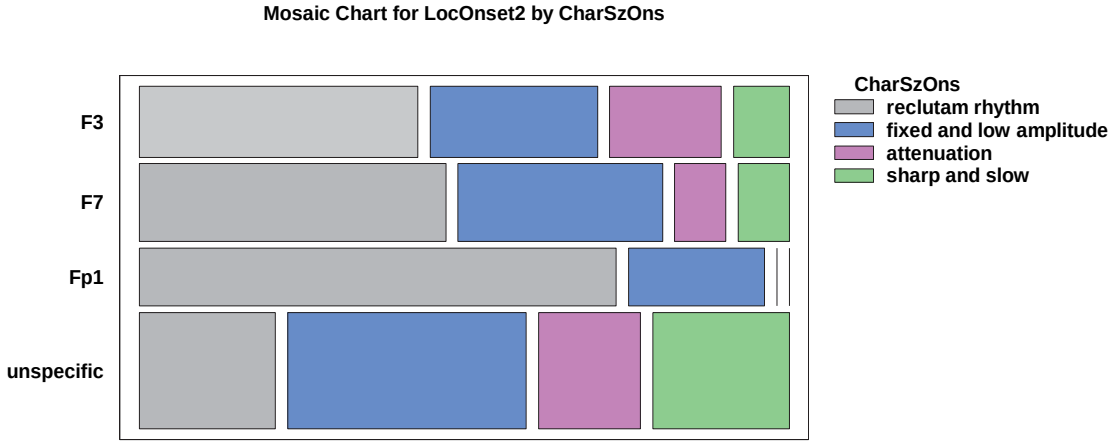
Frequency Table for LocOnset2 by CharSzOns

	0 Reclutant rhythm without amplitude change	1 Low amplitude synchronized rhythm	2 Attenuation	3Spike/sharp wave within slow wave	Row Total
F3, F4, FZ	5	3	2	1	11
	45.45%	27.27%	18.18%	9.09%	22.00%
F7, F8	6	4	1	1	12
	50.00%	33.33%	8.33%	8.33%	24.00%
Fp1, FP2	7	2	0	0	9
	77.78%	22.22%	0.00%	0.00%	18.00%
unspecific	4	7	3	4	18
	22.22%	38.89%	16.67%	22.22%	36.00%
Column Total	22	16	6	6	50
	44.00%	32.00%	12.00%	12.00%	100.00%

Cell contents:
Observed frequency

Percentage of row

The StatAdvisor
This table shows how often the 4 values of LocOnset2 occur together with each of the 4 values of CharSzOns. The first number in each cell of the table is the count or frequency. The second number shows that cell's percentage of the row in which it falls. For example, there were 5 times when LocOnset2 equaled F3 and CharSzOns equaled 0. This represents 45.4545% of the 11 times when LocOnset2 equaled F3.



Tests of Independence

Test	*Statistic*	*Df*	*P-Value*
Chi-Square	9.748	9	**0.3713**

Warning: some expected cell counts < 5.

The StatAdvisor
This table shows the results of a hypothesis test run to determine whether or not to reject the idea that the row and column classifications are independent. Since the P-value is greater than or equal to 0.05, we cannot reject the hypothesis that rows and columns are independent at the 95.0% confidence level. Therefore, the observed value of LocOnset2 for a particular case may bear no relation to its value for CharSzOns.

Summary Statistics

		With Rows	*With Columns*
Statistic	*Symmetric*	*Dependent*	*Dependent*
Lambda	0.1000	0.0938	**0.1071**
Uncertainty Coeff.	0.0894	0.0855	0.0936
Somer's D	0.1671	0.1742	0.1607
Eta		0.2169	0.4100

Statistic	*Value*	*P-Value*	*Df*
Contingency Coeff.	0.4039		
Cramer's V	0.2549		
Conditional Gamma	0.2344		
Pearson's R	0.1958	**0.1730**	48
Kendall's Tau b	0.1673	**0.1706**	
Kendall's Tau c	0.1568		

The StatAdvisor
The statistics shown here measure the degree of association between rows and columns. Of particular interest are the contingency coefficient and lambda, which measure the degree of association on a scale of 0 to 1. Lambda measures how useful the row (or column) factor is in predicting the other factor. For example, the value of lambda with columns dependent equals 0.107143. This means that there is a 10.7143% reduction in error when LocOnset2 is used to predict CharSzOns. For those statistics with P values, P values less than 0.05 indicate a significant association between rows and columns at the 95% confidence level.

Problem 4: Ictal frequency

Progressive slowing of ictal frequencies

Item studied: **Frequency**

Chi2 test for the differences of the mean for the three first frequencies and applicability of the test:

Model information

Data set	WORK.PROBLEMA4
Dependent variable	**Frequency**
Covariance structure	Unstructured
Subject effect	Patient
Estimation method	REML
Residual variance method	None
Fixed effect SE method	Model-based
Degrees of freedom method	Between-Within

Class level information

Class	Levels	Values
Patient	51	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 40 41 43 64 65 71 80 85 89 103 144 147 148 150 151
Frequencies	3	1 2 3

Covariance parameters estimates

ParmCov	Subject	Estimate
UN(1,1)	Patient	86.2425
UN(2,1)	Patient	43.7549
UN(2,2)	Patient	42.8042
UN(3,1)	Patient	25.7732
UN(3,2)	Patient	14.4094
UN(3,3)	Patient	29.2694

Fit statistics

likelihood -2 Res Log	722.5
AIC	734.5
AICC	735.3
BIC	746.1

Null model likelihood radio test

DF	Chi-square	Pr > ChiSq
5	35.82	<.0001

Type 3 test of fixed effect

Effects	Num DF	Den DF	F-Value	Pr > F
Frequencies	**2**	**50**	**25.84**	**<.0001**

Least squares means

Effect	Freq	Estimate	Std. Error	DF	t-value	Pr>|t|	Alpha	Lower	Upper
Freq	**1**	**15.4510**	1.3004	50	11.88	<.0001	0.05	**12.8391**	**18.0629**
Freq	**2**	**9.5935**	1.0119	50	9.48	<.0001	0.05	**7.5610**	**11.6260**
Freq	**3**	**7.1057**	0.9898	50	7.18	<.0001	0.05	**5.1177**	**9.0938**

Differences of least squares means

Effect	Freq	Freq	Estimate	Std. error	DF	t-value	Pr> |t|	Alpha	Lower	Upper
Frequencies	**1**	**2**	**5.8575**	0.9996	50	5.86	**<.0001**	0.05	3.8498	7.8652
Frequencies	**1**	**3**	**8.3453**	1.2884	50	6.48	**<.0001**	0.05	5.7574	10.9331
Frequencies	**2**	**3**	**2.4878**	1.1894	50	2.09	**0.0416**	0.05	0.09880	4.8768

Test for normality

Test		Statistic		P-value
Kolmogorov-Smirnov	**D**	**0.067091**	**Pr> D**	**>0.1500**

The Kolmogorov-Smirnov test confirms the normality of the distribution of the studies variable, necessary for applying the linear model.

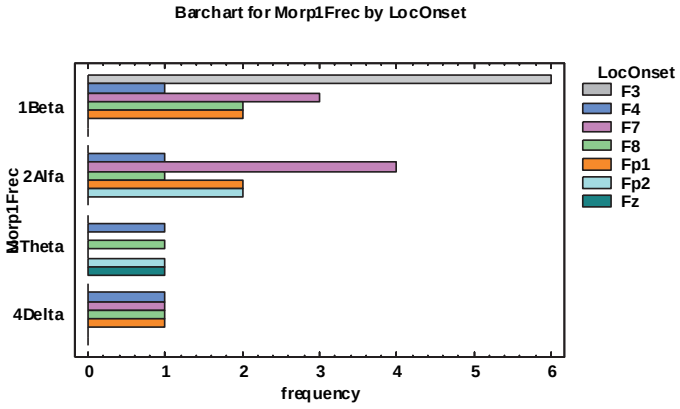
Analysis of the frequency at seizure onset by electrodes

Crosstabulation - Morp1Frec by LocOnset (LocOnset<>"Der" & LocOnset<>"Izq" &LocOnset<>"NL")

Row variable: Morp1Frec
Column variable: LocOnset
Selection variable: LocOnset<>"Der" & LocOnset<>"Izq" &LocOnset<>"NL"

Number of observations: 32
Number of rows: 4
Number of columns: 7

The StatAdvisor
This procedure constructs a two-way table showing the frequency of occurrence of unique pairs of values for Morp1Frec and LocOnset. It constructs a 4 by 7 contingency table for the data and displays the results in various ways. Of particular interest are the tests for independence between rows and columns, which you can select from the list of Tabular Options.



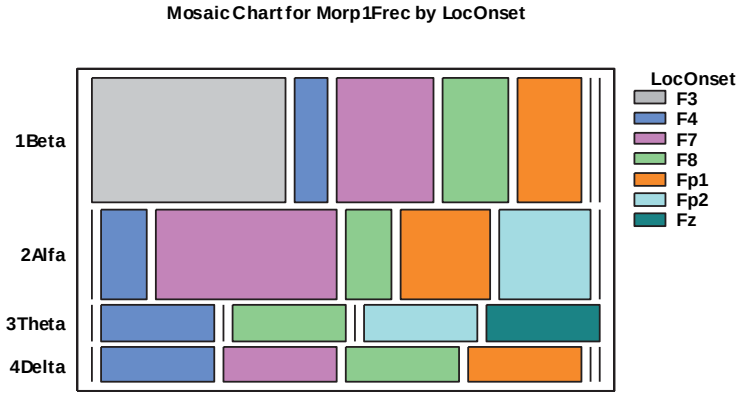
Frequency Table for Morp1Frec by LocOnset

	F3	F4	F7	F8	Fp1	Fp2	Fz	Row Total
1Beta	6	1	3	2	2	0	0	14
	42.86%	7.14%	21.43%	14.29%	14.29%	0.00%	0.00%	43.75%
2Alfa	0	1	4	1	2	2	0	10
	0.00%	10.00%	40.00%	10.00%	20.00%	20.00%	0.00%	31.25%
3Theta	0	1	0	1	0	1	1	4
	0.00%	25.00%	0.00%	25.00%	0.00%	25.00%	25.00%	12.50%
4Delta	0	1	1	1	1	0	0	4
	0.00%	25.00%	25.00%	25.00%	25.00%	0.00%	0.00%	12.50%
Column Total	6	4	8	5	5	3	1	32
	18.75%	12.50%	25.00%	15.63%	15.63%	9.38%	3.13%	100.00%

Cell contents:
Observed frequency
Percentage of row

The StatAdvisor

This table shows how often the 4 values of Morp1Frec occur together with each of the 7 values of LocOnset. The first number in each cell of the table is the count or frequency. The second number shows that cell's percentage of the row in which it falls. For example, there were 6 times when Morp1Frec equaled 1Beta and LocOnset equaled F3. This represents 42.8571% of the 14 times when Morp1Frec equaled 1Beta.



Tests of Independence

Test	*Statistic*	*Df*	*P-Value*
Chi-Square	23.648	18	**0.1669**

Warning: some expected cell counts < 5.

The StatAdvisor

This table shows the results of a hypothesis test run to determine whether or not to reject the idea that the row and column classifications are independent. Since the P-value is greater than or equal to 0.05, we cannot reject the hypothesis that rows and columns are independent at the 95.0% confidence level. Therefore, the observed value of Morp1Frec for a particular case may bear no relation to its value for LocOnset.

Summary Statistics

		With Rows	*With Columns*
Statistic	*Symmetric*	*Dependent*	*Dependent*
Lambda	0.1905	0.2222	**0.1667**
Uncertainty Coeff.	0.2572	0.3177	0.2160
Somer's D	0.3212	0.2925	0.3563
Eta		0.5653	0.4678

Statistic	*Value*	*P-Value*	*Df*
Contingency Coeff.	0.6519		
Cramer's V	0.4963		
Conditional Gamma	0.4079		
Pearson's R	0.3927	**0.0262**	30
Kendall's Tau b	0.3228	**0.0288**	
Kendall's Tau c	0.3229		

The StatAdvisor

The statistics shown here measure the degree of association between rows and columns. Of particular interest are the contingency coefficient and lambda, which measure the degree of association on a scale of 0 to 1. Lambda measures how useful the row (or column) factor is in predicting the other factor. For example, the value of lambda with columns dependent equals 0.166667. This means that there is a 16.6667% reduction in error when Morp1Frec is used to predict LocOnset. For those statistics with P values, P values less than 0.05 indicate a significant association between rows and columns at the 95% confidence level.

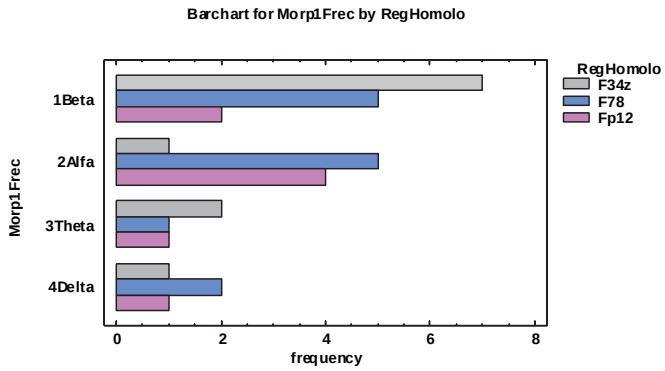
Analysis of the frequency at seizure onset by homologue regions

Crosstabulation - Morp1Frec by RegHomolo (RegHomolo<>"Der" & RegHomolo<>"Izq" & RegHomolo<>"No")

Row variable: Morp1Frec
Column variable: RegHomolo
Selection variable: RegHomolo<>"Der" & RegHomolo<>"Izq" & RegHomolo<>"No"

Number of observations: 32
Number of rows: 4
Number of columns: 3

The StatAdvisor
This procedure constructs a two-way table showing the frequency of occurrence of unique pairs of values for Morp1Frec and RegHomolo. It constructs a 4 by 3 contingency table for the data and displays the results in various ways. Of particular interest are the tests for independence between rows and columns, which you can select from the list of Tabular Options.

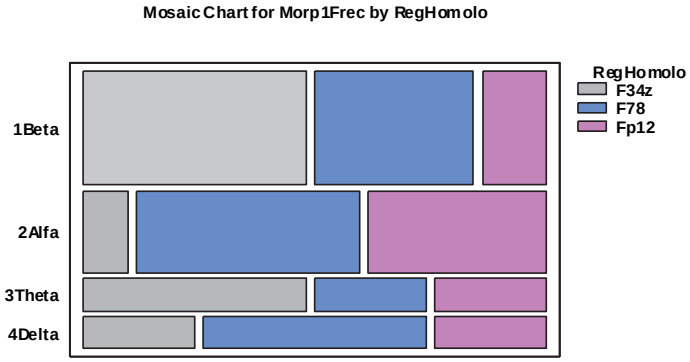


Frequency Table for Morp1Frec by RegHomolo

	F34z	F78	Fp12	Row Total
1Beta	7	5	2	14
	50.00%	35.71%	14.29%	43.75%
2Alfa	1	5	4	10
	10.00%	50.00%	40.00%	31.25%
3Theta	2	1	1	4
	50.00%	25.00%	25.00%	12.50%
4Delta	1	2	1	4
	25.00%	50.00%	25.00%	12.50%
Column Total	11	13	8	32
	34.38%	40.63%	25.00%	100.00%

Cell contents:
Observed frequency
Percentage of row

The StatAdvisor
This table shows how often the 4 values of Morp1Frec occur together with each of the 3 values of RegHomolo. The first number in each cell of the table is the count or frequency. The second number shows that cell's percentage of the row in which it falls. For example, there were 7 times when Morp1Frec equaled 1Beta and RegHomolo equaled F34z. This represents 50.0% of the 14 times when Morp1Frec equaled 1Beta.



Tests of Independence

Test	*Statistic*	*Df*	*P-Value*
Chi-Square	5.278	6	**0.5086**

Warning: some expected cell counts < 5.

The StatAdvisor
This table shows the results of a hypothesis test run to determine whether or not to reject the idea that the row and column classifications are independent. Since the P-value is greater than or equal to 0.05, we cannot reject the hypothesis that rows and columns are independent at the 95.0% confidence level. Therefore, the observed value of Morp1Frec for a particular case may bear no relation to its value for RegHomolo.

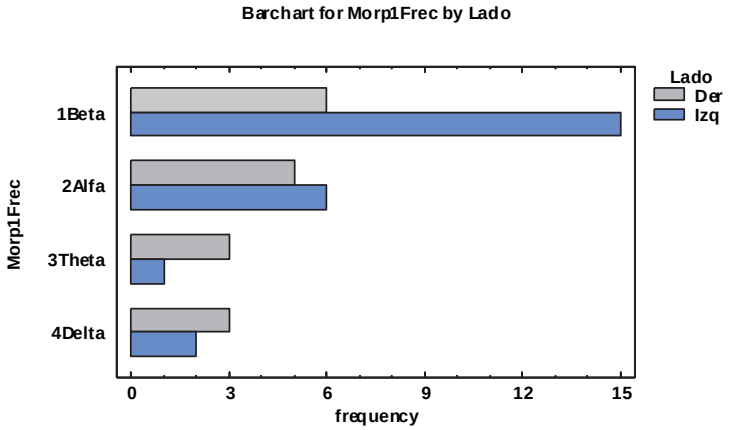
Analysis of the frequency at seizure onset by hemisphere

Crosstabulation - Morp1Frec by Side (hemisphere) (Lado<>"No" & Lado<>"0")

Row variable: Morp1Frec
Column variable: Lado
Selection variable: Lado<>"No" & Lado<>"0"

Number of observations: 41
Number of rows: 4
Number of columns: 2

The StatAdvisor
This procedure constructs a two-way table showing the frequency of occurrence of unique pairs of values for Morp1Frec and Side. It constructs a 4 by 2 contingency table for the data and displays the results in various ways. Of particular interest are the tests for independence between rows and columns, which you can select from the list of Tabular Options.



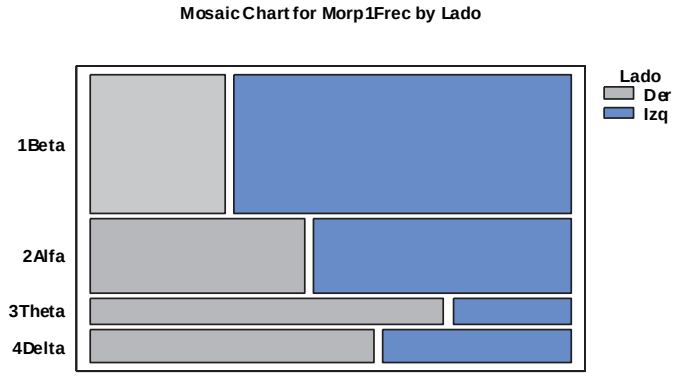
Frequency Table for Morp1Frec by Lado

	Right	Left	Row Total
1Beta	6	15	21
	14.63%	36.59%	51.22%
2Alfa	5	6	11
	12.20%	14.63%	26.83%
3Theta	3	1	4
	7.32%	2.44%	9.76%
4Delta	3	2	5
	7.32%	4.88%	12.20%
Column Total	17	24	41
	41.46%	58.54%	100.00%

Cell contents:
Observed frequency
Percentage of table

The StatAdvisor

This table shows how often the 4 values of Morp1Frec occur together with each of the 2 values of Side. The first number in each cell of the table is the count or frequency. The second number shows the percentage of the entire table represented by that cell. For example, there were 6 times when Morp1Frec equaled 1Beta and Side equaled Der. This represents 14.6341% of the total of 41 observations.



Tests of Independence

Test	*Statistic*	*Df*	*P-Value*
Chi-Square	4.072	3	**0.2538**

Warning: some expected cell counts < 5.

The StatAdvisor
This table shows the results of a hypothesis test run to determine whether or not to reject the idea that the row and column classifications are independent. Since the P-value is greater than or equal to 0.05, we cannot reject the hypothesis that rows and columns are independent at the 95.0% confidence level. Therefore, the observed value of Morp1Frec for a particular case may bear no relation to its value for Side.

Problem 5: Pathologic antecedent and location of the focus

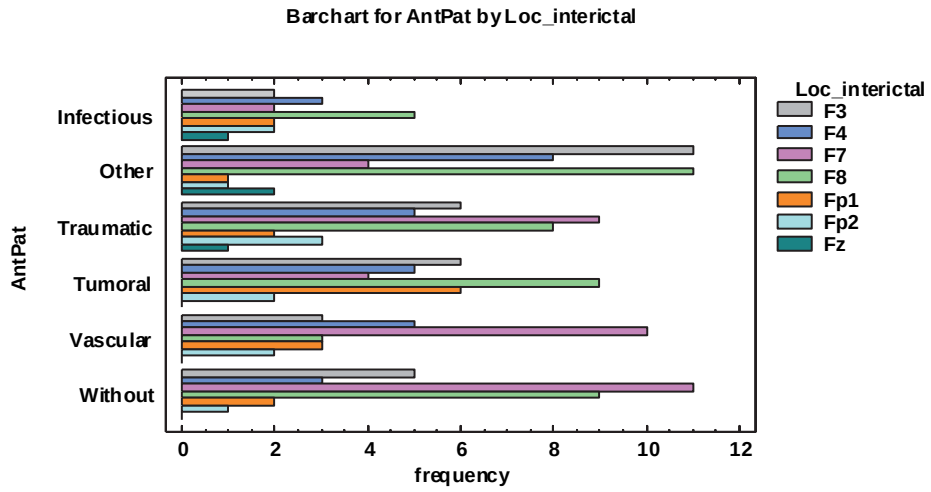
Analysis of a potential relation between pathologic antecedent and location of focus activity (by electrodes)

Crosstabulation - AntPat by Loc_interictal (Loc_interictal<>"DER" &Loc_interictal<>"IZQ" & AntPat<>"No Data")

Row variable: AntPat
Column variable: Loc_interictal
Selection variable: Loc_interictal<>"DER" &Loc_interictal<>"IZQ" & AntPat<>"No Data"

Number of observations: 178
Number of rows: 6
Number of columns: 7

The StatAdvisor
This procedure constructs a two-way table showing the frequency of occurrence of unique pairs of values for AntPat and Loc_interictal. It constructs a 6 by 7 contingency table for the data and displays the results in various ways. Of particular interest are the tests for independence between rows and columns, which you can select from the list of Tabular Options.



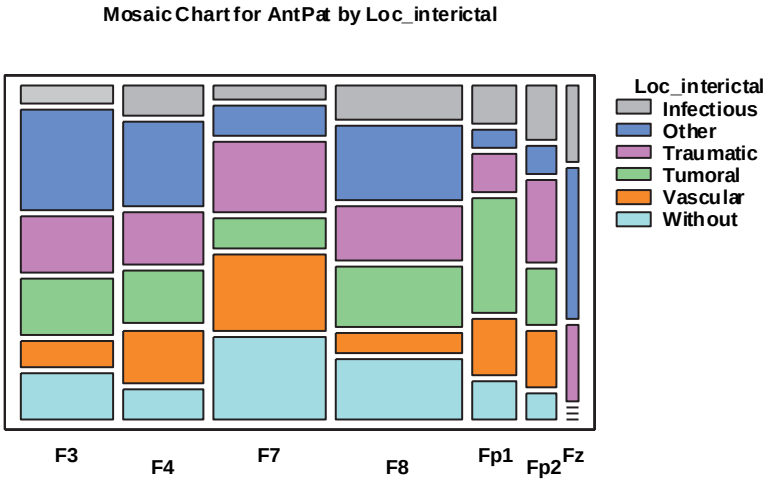
Frequency Table for AntPat by Loc_interictal

	F3	F4	F7	F8	Fp1	Fp2	Fz	Row Total
Infectious	2	3	2	5	2	2	1	17
	11.76%	17.65%	11.76%	29.41%	11.76%	11.76%	5.88%	9.55%
	6.06%	10.34%	5.00%	11.11%	12.50%	18.18%	25.00%	
Other	11	8	4	11	1	1	2	38
	28.95%	21.05%	10.53%	28.95%	2.63%	2.63%	5.26%	21.35%
	33.33%	27.59%	10.00%	24.44%	6.25%	9.09%	50.00%	
Traumatic	6	5	9	8	2	3	1	34
	17.65%	14.71%	26.47%	23.53%	5.88%	8.82%	2.94%	19.10%
	18.18%	17.24%	22.50%	17.78%	12.50%	27.27%	25.00%	
Tumoral	6	5	4	9	6	2	0	32
	18.75%	15.63%	12.50%	28.13%	18.75%	6.25%	0.00%	17.98%
	18.18%	17.24%	10.00%	20.00%	37.50%	18.18%	0.00%	
Vascular	3	5	10	3	3	2	0	26

	11.54%	19.23%	38.46%	11.54%	11.54%	7.69%	0.00%	14.61%
	9.09%	17.24%	25.00%	6.67%	18.75%	18.18%	0.00%	
Without	5	3	11	9	2	1	0	31
	16.13%	9.68%	35.48%	29.03%	6.45%	3.23%	0.00%	17.42%
	15.15%	10.34%	27.50%	20.00%	12.50%	9.09%	0.00%	
Column Total	33	29	40	45	16	11	4	178
	18.54%	16.29%	22.47%	25.28%	8.99%	6.18%	2.25%	100.00%

Cell contents:
Observed frequency
Percentage of row
Percentage of column

The StatAdvisor
This table shows how often the 6 values of AntPat occur together with each of the 7 values of Loc_interictal. The first number in each cell of the table is the count or frequency. The second number shows that cell's percentage of the row in which it falls. The third number shows that cell's percentage of the column in which it falls. For example, there were 2 times when AntPat equaled Infectious and Loc_interictal equaled F3. This represents 11.7647% of the 17 times when AntPat equaled Infectious.



Tests of Independence

Test	*Statistic*	*Df*	*P-Value*
Chi-Square	31.011	30	**0.4149**

Warning: some expected cell counts < 5.

The StatAdvisor
This table shows the results of a hypothesis test run to determine whether or not to reject the idea that the row and column classifications are independent. Since the P-value is greater than or equal to 0.05, we cannot reject the hypothesis that rows and columns are independent at the 95.0% confidence level. Therefore, the observed value of AntPat for a particular case may bear no relation to its value for Loc_interictal.

Summary Statistics

		With Rows	*With Columns*
Statistic	*Symmetric*	*Dependent*	*Dependent*
Lambda	0.0879	0.1000	**0.0752**
Uncertainty Coeff.	0.0522	0.0523	0.0522
Somer's D	0.0020	0.0020	0.0020
Eta		0.2653	0.1563

Statistic	*Value*	*P-Value*	*Df*
Contingency Coeff.	0.3852		
Cramer's V	0.1867		
Conditional Gamma	0.0024		

Pearson's R	0.0014	**0.9853**	176
Kendall's Tau b	0.0020	**0.9729**	
Kendall's Tau c	0.0020		

The StatAdvisor
The statistics shown here measure the degree of association between rows and columns. Of particular interest are the contingency coefficient and lambda, which measure the degree of association on a scale of 0 to 1. Lambda measures how useful the row (or column) factor is in predicting the other factor. For example, the value of lambda with columns dependent equals 0.075188. This means that there is a 7.5188% reduction in error when AntPat is used to predict Loc_interictal. For those statistics with P values, P values less than 0.05 indicate a significant association between rows and columns at the 95% confidence level.

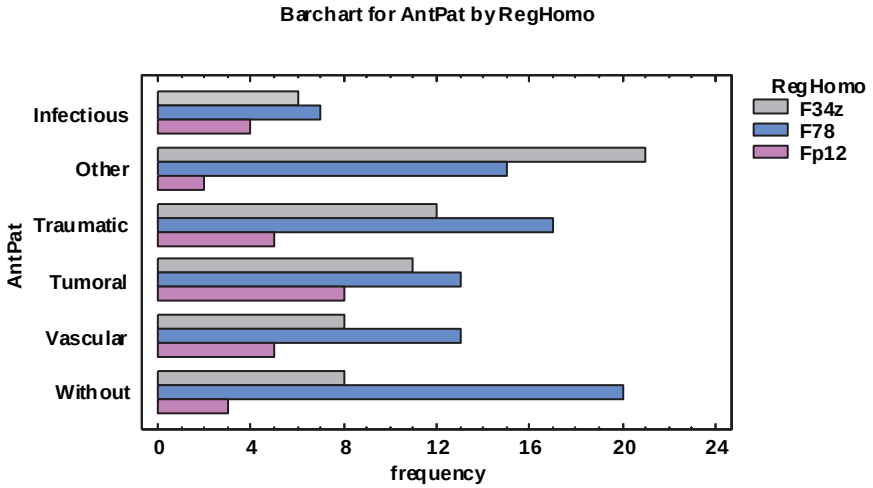
Analysis of a potential relation between pathologic antecedent and location of focus activity by homologue regions

Crosstabulation - AntPat by RegHomo (AntPat<>"No Data")

Row variable: AntPat
Column variable: RegHomo
Selection variable: AntPat<>"No Data"

Number of observations: 178
Number of rows: 6
Number of columns: 3

The StatAdvisor
This procedure constructs a two-way table showing the frequency of occurrence of unique pairs of values for AntPat and RegHomo. It constructs a 6 by 3 contingency table for the data and displays the results in various ways. Of particular interest are the tests for independence between rows and columns, which you can select from the list of Tabular Options.



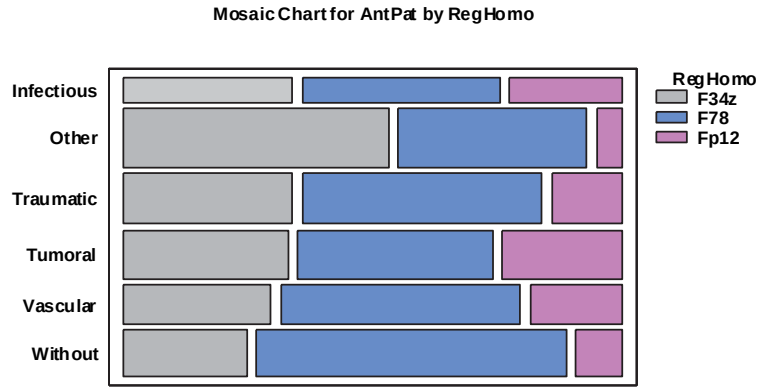
Frequency Table for AntPat by RegHomo

	F34z	F78	Fp12	Row Total
Infectious	6	7	4	17
	3.37%	3.93%	2.25%	9.55%
Other	21	15	2	38
	11.80%	8.43%	1.12%	21.35%
Traumatic	12	17	5	34
	6.74%	9.55%	2.81%	19.10%

Tumoral	11	13	8	32
	6.18%	7.30%	4.49%	17.98%
Vascular	8	13	5	26
	4.49%	7.30%	2.81%	14.61%
Without	8	20	3	31
	4.49%	11.24%	1.69%	17.42%
Column Total	66	85	27	178
	37.08%	47.75%	15.17%	100.00%

Cell contents:
Observed frequency
Percentage of table

The StatAdvisor
This table shows how often the 6 values of AntPat occur together with each of the 3 values of RegHomo. The first number in each cell of the table is the count or frequency. The second number shows the percentage of the entire table represented by that cell. For example, there were 6 times when AntPat equaled Infectious and RegHomo equaled F34z. This represents 3.37079% of the total of 178 observations.



Tests of Independence

Test	*Statistic*	*Df*	*P-Value*
Chi-Square	13.949	10	**0.1753**

Warning: some expected cell counts < 5.

The StatAdvisor
This table shows the results of a hypothesis test run to determine whether or not to reject the idea that the row and column classifications are independent. Since the P-value is greater than or equal to 0.05, we cannot reject the hypothesis that rows and columns are independent at the 95.0% confidence level. Therefore, the observed value of AntPat for a particular case may bear no relation to its value for RegHomo.

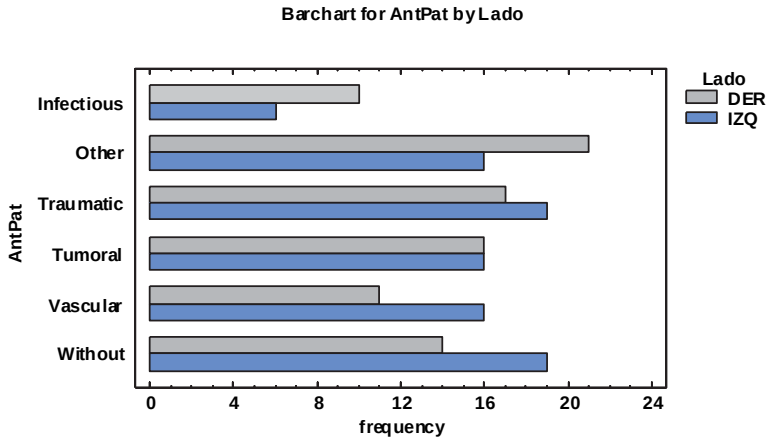
Analysis of a potential relation between pathologic antecedent and location of focus activity (by hemisphere)

Crosstabulation - AntPat by Side (Hemisphere) (AntPat<>"No Data")

Row variable: AntPat
Column variable: Side
Selection variable: AntPat<>"No Data"

Number of observations: 181
Number of rows: 6
Number of columns: 2

The StatAdvisor
This procedure constructs a two-way table showing the frequency of occurrence of unique pairs of values for AntPat and Lado. It constructs a 6 by 2 contingency table for the data and displays the results in various ways. Of particular interest are the tests for independence between rows and columns, which you can select from the list of Tabular Options.



Frequency Table for AntPat by Side

	RIGHT	LEFT	Row Total
Infectious	10	6	16
	62.50%	37.50%	8.84%
Other	21	16	37
	56.76%	43.24%	20.44%
Traumatic	17	19	36
	47.22%	52.78%	19.89%
Tumoral	16	16	32
	50.00%	50.00%	17.68%
Vascular	11	16	27
	40.74%	59.26%	14.92%
Without	14	19	33
	42.42%	57.58%	18.23%
Column Total	89	92	181
	49.17%	50.83%	100.00%

Cell contents:
Observed frequency
Percentage of row

The StatAdvisor
This table shows how often the 6 values of AntPat occur together with each of the 2 values of Side. The first number in each cell of the table is the count or frequency. The second number shows that cell's percentage of the row in which it falls. For example, there were 10 times when AntPat equaled Infectious and Side equaled RIGHT. This represents 62.5% of the 16 times when AntPat equaled Infectious.

Multifactorial analyses

HISTOGRAM OF THE FIRST 5 EIGENVALUES

NUMBER	EIGENVALUE	PERCENTAGE	CUMULATED PERCENTAGE	
1	**0.0909**	**52.19**	**52.19**	**********
2	**0.0463**	**26.57**	**78.76**	**********
3	0.0231	13.28	92.04	**********
4	0.0125	7.15	99.19	**********
5	0.0014	0.81	100.00	**

SUMMARY OF NEXT EIGENVALUES
6 = 0.0000

COORDINATES, CONTRIBUTIONS OF FREQUENCIES ON AXES 1 TO 5
ACTIVE FREQUENCIES

FREQUENCIES		COORDINATES					CONTRIBUTIONS					SQUARED COSINES				
IDEN - SHORT LABEL	REL.WT	DISTO	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
C4 - F3	18.54	0.10	0.26	-0.11	0.12	0.09	-0.05	14.0	4.6	11.1	11.4	33.0	0.66	0.11	0.13	0.07	0.02
C5 - F4	16.29	0.05	0.12	0.01	-0.10	0.17	0.03	2.8	0.0	7.5	35.6	13.1	0.28	0.00	0.19	0.50	0.02
C6 - F7	22.47	0.26	-0.46	-0.20	-0.01	-0.01	0.01	52.9	20.1	0.1	0.1	1.0	0.84	0.16	0.00	0.00	0.00
C7 - F8	25.28	0.06	0.16	0.02	0.11	-0.14	0.02	7.0	0.1	12.2	41.2	4.7	0.44	0.00	0.20	0.36	0.00
C8 - Fp1	8.99	0.38	-0.19	0.58	0.07	0.05	0.02	3.5	64.7	1.9	1.8	2.4	0.09	0.89	0.01	0.01	0.00
C9 - Fp2	6.18	0.23	-0.12	0.23	-0.38	-0.12	-0.09	1.0	6.9	38.2	6.8	35.7	0.07	0.22	0.62	0.06	0.03
C10 - Fz	2.25	1.15	0.87	-0.27	-0.55	-0.13	0.08	18.7	3.6	29.1	3.1	10.2	0.66	0.06	0.26	0.01	0.01

SUPPLEMENTARY FREQUENCIES

FREQUENCIES		COORDINATES					CONTRIBUTIONS					SQUARED COSINES				
IDEN - SHORT LABEL	REL.WT	DISTO	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
C11 - F34z	37.08	0.07	0.24	-0.07	-0.02	0.11	-0.01	0.0	0.0	0.0	0.0	0.0	0.78	0.06	0.01	0.16	0.00
C12 - Fp12	15.17	0.23	-0.16	0.43	-0.11	-0.02	-0.03	0.0	0.0	0.0	0.0	0.0	0.11	0.83	0.06	0.00	0.00
C13 - F78	47.75	0.03	-0.13	-0.09	0.05	-0.08	0.01	0.0	0.0	0.0	0.0	0.0	0.52	0.22	0.08	0.18	0.00
C14 - L_DER	50.00	0.01	0.09	0.01	-0.03	-0.03	0.01	0.0	0.0	0.0	0.0	0.0	0.84	0.02	0.08	0.06	0.00
C15 - L_IZQ	51.69	0.03	-0.15	-0.05	0.05	0.01	-0.04	0.0	0.0	0.0	0.0	0.0	0.79	0.07	0.07	0.01	0.06

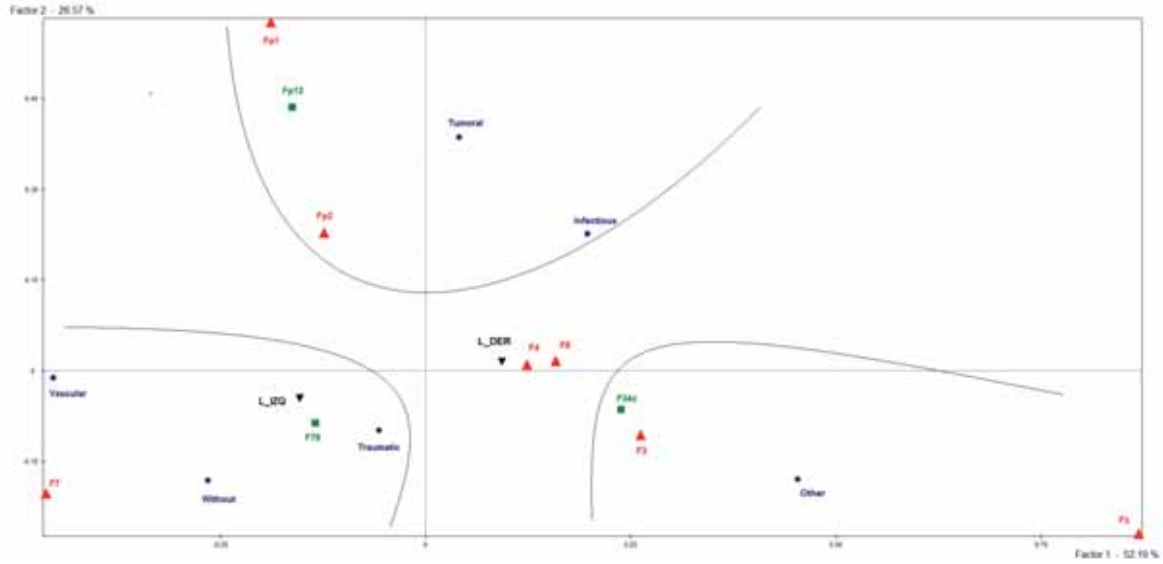
COORDINATES, CONTRIBUTIONS AND SQUARED COSINES OF CASES
ACTIVE CASES (AXES 1 TO 5)

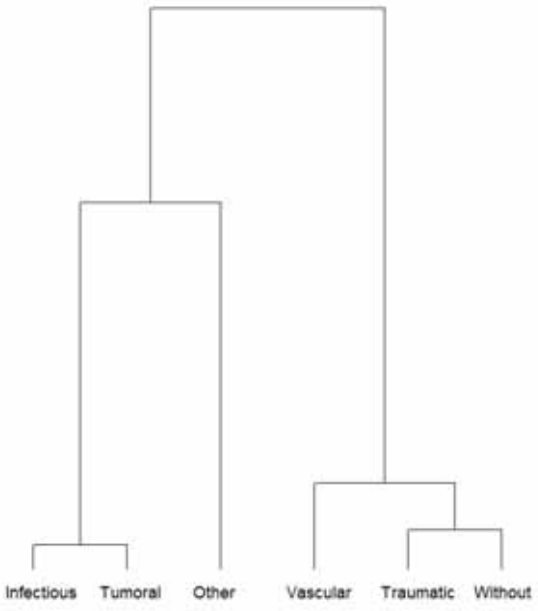
CASES		COORDINATES					CONTRIBUTIONS					SQUARED COSINES				
IDENTIFIER	REL.WT.	DISTO	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Infectious	9.55	0.20	0.20	0.23	-0.28	-0.17	0.06	4.1	10.6	32.9	21.9	21.0	0.19	0.25	0.40	0.14	0.02
Other	21.35	0.25	0.45	-0.18	0.03	0.09	0.01	48.4	14.9	1.0	12.4	1.9	0.83	0.13	0.00	0.03	0.00
Traumatic	19.10	0.03	-0.06	-0.10	-0.12	-0.06	-0.07	0.7	4.1	11.1	5.5	59.5	0.09	0.29	0.39	0.10	0.13
Tumoral	17.98	0.18	0.04	0.39	0.16	0.03	-0.02	0.3	57.8	19.0	1.3	3.5	0.01	0.85	0.14	0.01	0.00

| Vascular 14.61 0.25 | -0.45 -0.01 -0.13 0.18 0.02 | 33.0 0.0 10.0 36.8 5.5 | 0.81 0.00 0.06 0.12 0.00 |
| Without 17.42 0.15 | -0.27 -0.18 0.19 -0.13 0.03 | 13.5 12.5 26.0 22.1 8.5 | 0.45 0.22 0.22 0.10 0.00 |

SUPPLEMENTARY CASES (AXES 1 TO 5)

CASES	COORDINATES	CONTRIBUTIONS	SQUARED COSINES
IDENTIFIER REL.WT. DISTO	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
No Data 2.25 1.51	-0.33 0.46 -0.24 0.84 0.63	0.0 0.0 0.0 0.0 0.0	0.07 0.14 0.04 0.46 0.26





COMPOSITION OF: CUT "a" OF THE TREE INTO 3 CLUSTERS

CLUSTER 1 / 3
Infe Tumo

CLUSTER 2 / 3
Othe

CLUSTER 3 / 3
Trau Vasc With

CLUSTER 1 / 3

TEST-VALUE PROBA / WEIGHT	PERCENTAGES GRP/FRE	FRE/GRP	GLOBAL	NUM . LABEL	CHARACTERISTIC FREQUENCIES IDEN
			27.53	CLUSTER 1 / 3	aa1a 49
1.86 0.0316 27	**44.44**	**24.49**	**15.17**	**11 . Fp12**	**C12**
1.76 0.0391 16	**50.00**	**16.33**	**8.99**	**7 . Fp1**	**C8**
0.44 0.3295 45	31.11	28.57	25.28	6 . F8	C7
0.37 0.3561 11	36.36	8.16	6.18	8 . Fp2	C9
0.34 0.3687 89	29.21	53.06	50.00	13 . L_DER	C14
-0.23 0.4107 66	25.76	34.69	37.08	10 . F34z	C11
-0.23 0.4082 33	24.24	16.33	18.54	3 . F3	C4
-0.95 0.1713 92	23.91	44.90	51.69	14 . L_IZQ	C15
-0.97 0.1651 85	23.53	40.82	47.75	12 . F78	C13
-1.87 0.0309 40	**15.00**	**12.24**	**22.47**	**5 . F7**	**C6**

CLUSTER 2 / 3

TEST-VALUE PROBA / WEIGHT	PERCENTAGES	CHARACTERISTIC FREQUENCIES

	GRP/FRE	FRE/GRP	GLOBAL	NUM . LABEL	
IDEN					
aa2a	38		21.35	CLUSTER 2 / 3	
	2.40	**0.0082**	**31.82**	**55.26**	**37.08**	**10 . F34z**	**C11**
	66						
	1.59	**0.0555**	**33.33**	**28.95**	**18.54**	**3 . F3**	**C4**
	33						
	0.84	0.2002	50.00	5.26	2.25	9 . Fz	C10
	4						
	0.67	0.2526	27.59	21.05	16.29	4 . F4	C5
	29						
	0.55	0.2918	23.60	55.26	50.00	13 . L_DER	C14
	89						
	0.39	0.3471	24.44	28.95	25.28	6 . F8	C7
	45						
	-0.60	0.2751	9.09	2.63	6.18	8 . Fp2	C9
	11						
	-0.97	0.1663	17.65	39.47	47.75	12 . F78	C13
	85						
	-1.15	0.1252	17.39	42.11	51.69	14 . L_IZQ	C15
	92						
	-1.26	0.1034	6.25	2.63	8.99	7 . Fp1	C8
	16						
	-1.75	**0.0398**	**7.41**	**5.26**	**15.17**	**11 . Fp12**	**C12**
	27						
	-1.84	**0.0330**	**10.00**	**10.53**	**22.47**	**5 . F7**	**C6**
	40						

CLUSTER 3 / 3

TEST-VALUE / WEIGHT	PROBA	GRP/FRE	FRE/GRP	GLOBAL	NUM . LABEL	
IDEN						
aa3a	91		51.12	CLUSTER 3 / 3	
	3.30	**0.0005**	**75.00**	**32.97**	**22.47**	**5 . F7**	**C6**
	40						
	1.94	**0.0260**	**58.70**	**59.34**	**51.69**	**14 . L_IZQ**	**C15**
	92						
	1.82	**0.0346**	**58.82**	**54.95**	**47.75**	**12 . F78**	**C13**
	85						
	-0.13	0.4492	48.15	14.29	15.17	11 . Fp12	C12
	27						
	-0.36	0.3608	43.75	7.69	8.99	7 . Fp1	C8
	16						
	-0.54	0.2952	44.83	14.29	16.29	4 . F4	C5
	29						
	-0.54	0.2936	25.00	1.10	2.25	9 . Fz	C10
	4						
	-0.86	0.1937	44.44	21.98	25.28	6 . F8	C7
	45						
	-0.90	0.1842	47.19	46.15	50.00	13 . L_DER	C14
	89						
	-0.91	0.1802	42.42	15.38	18.54	3 . F3	C4
	33						
	-1.63	**0.0517**	**42.42**	**30.77**	**37.08**	**10 . F34z**	**C11**
	66						

Problem 6: Relation between morphology the waveform of the interictal activity and pathologic antecedent.
Multifactorial analyses

MARGINAL DISTRIBUTIONS OF ACTIVE QUESTIONS

IDENT	CATEGORIES LABEL	BEFORE CLEANING COUNT	BEFORE CLEANING WEIGHT	AFTER CLEANING COUNT	AFTER CLEANING WEIGHT	HISTOGRAM OF RELATIVE WEIGHTS,
5 . Ant_Pat						
AD_1	C5=INFECTIOUS	23	23.00	23	23.00	******
AD_2	C5=NO DATA	0	0.00	= ILL.CATEGORY =		
AD_3	C5=OTHER	56	56.00	56	56.00	**********
AD_4	C5=TRAUMATIC	51	51.00	51	51.00	**********
AD_5	C5=TUMORAL	47	47.00	47	47.00	**********
AD_6	C5=VASCULAR	40	40.00	40	40.00	**********
AD_7	WITHOUT ANTECEDENTS	45	45.00	45	45.00	**********
6 . Tipo_Inicio						
AE_1	DIPHASIC SHARP WAVE	40	40.00	40	40.00	**********
AE_2	C6=IRREGULAR	0	0.00	= ILL.CATEGORY =		
AE_3	C6=POLI-SPIKES	15	15.00	15	15.00	****
AE_4	C6=SHARP WAVE	142	142.00	142	142.00	**********
AE_5	C6=SPIKE	65	65.00	65	65.00	**********
7 . Tipo_Fin						
AF_1	C7=IRREGULAR	55	55.00	55	55.00	**********
AF_2	C7=ISOLATED	157	157.00	157	157.00	**********
AF_3	C7=RETURNING	34	34.00	34	34.00	********
AF_4	C7=SLOW WAVE	16	16.00	16	16.00	****
8 . Voltaje						
AG_1	C8=100-200	71	71.00	71	71.00	**********
AG_2	C8=50-100	116	116.00	116	116.00	**********
AG_3	C8=<50	65	65.00	65	65.00	**********
AG_4	C8=>200	10	10.00	10	10.00	***

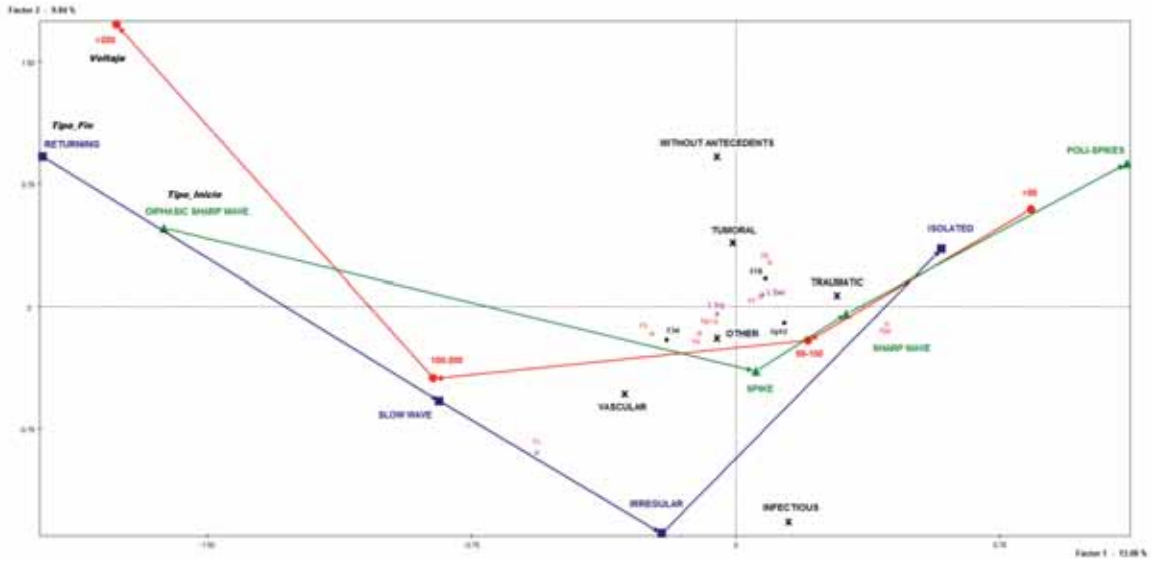
HISTOGRAM OF THE FIRST 16 EIGENVALUES

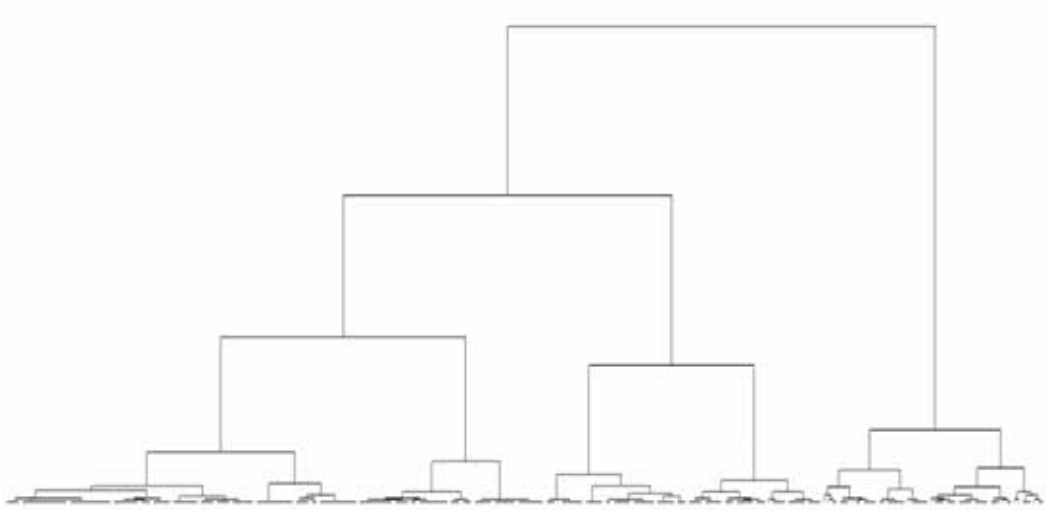
NUMBER	EIGENVALUE	PERCENTAGE	CUMULATED PERCENTAGE	
1	**0.4577**	**13.08**	**13.08**	**********
2	**0.3444**	**9.84**	**22.92**	**********
3	**0.3171**	**9.06**	**31.98**	**********
4	0.2949	8.43	40.40	**********
5	0.2758	7.88	48.28	**********
6	0.2584	7.38	55.66	**********
7	0.2501	7.15	62.81	**********
8	0.2491	7.12	69.93	**********
9	0.2319	6.63	76.55	**********
10	0.2209	6.31	82.87	**********
11	0.1987	5.68	88.54	**********
12	0.1689	4.83	93.37	**********
13	0.1390	3.97	97.34	**********
14	0.0931	2.66	100.00	**********
15	0.0000	0.00	100.00	*
16	0.0000	0.00	100.00	*

LOADINGS, CONTRIBUTIONS AND SQUARED COSINES OF ACTIVE CATEGORIES

AXES 1 TO 5

CATEGORIES		LOADINGS					CONTRIBUTIONS					SQUARED COSINES				
IDEN - LABEL	REL. WT.	DISTO	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5 . Ant_Pat																	
AD_1 - C5=INFECTIOUS	2.19	10.39	0.15	-1.32	-1.20	1.07	-0.87	0.1	11.1	10.0	8.6	6.0	0.00	0.17	0.14	0.11	0.07
AD_3 - C5=OTHER	5.34	3.68	-0.05	-0.19	0.24	0.14	1.17	0.0	0.6	1.0	0.4	26.6	0.00	0.01	0.02	0.01	0.37
AD_4 - C5=TRAUMATIC	4.87	4.14	0.29	0.07	0.64	-0.34	-0.46	0.9	0.1	6.3	1.9	3.7	0.02	0.00	0.10	0.03	0.05
AD_5 - C5=TUMORAL	4.48	4.57	-0.01	0.39	0.00	-0.72	0.14	0.0	2.0	0.0	8.0	0.3	0.00	0.03	0.00	0.11	0.00
AD_6 - C5=VASCULAR	3.82	5.55	-0.31	-0.54	0.54	0.20	-0.66	0.8	3.2	3.5	0.5	5.9	0.02	0.05	0.05	0.01	0.08
AD_7 - WITHOUT ANTECEDENTS	4.29	4.82	-0.05	0.91	-0.89	0.23	-0.06	0.0	10.4	10.8	0.8	0.1	0.00	0.17	0.17	0.01	0.00
CUMULATED CONTRIBUTION =								1.9	27.3	31.6	20.1	42.6					
6 . Tipo_Inicio																	
AE_1 - DIPHASIC SHARP WAVE	3.82	5.55	-1.62	0.48	-0.17	-0.77	0.03	21.9	2.5	0.4	7.7	0.0	0.47	0.04	0.01	0.11	0.00
AE_3 - C6=POLI-SPIKES	1.43	16.47	1.11	0.87	0.20	-0.53	0.73	3.9	3.2	0.2	1.4	2.8	0.08	0.05	0.00	0.02	0.03
AE_4 - C6=SHARP WAVE	13.55	0.85	0.31	-0.05	-0.55	0.10	-0.12	2.9	0.1	13.0	0.4	0.7	0.12	0.00	0.36	0.01	0.02
AE_5 - C6=SPIKE	6.20	3.03	0.06	-0.39	1.27	0.39	0.08	0.0	2.8	31.4	3.1	0.1	0.00	0.05	0.53	0.05	0.00
CUMULATED CONTRIBUTION =								28.8	8.5	45.0	12.6	3.7					
7 . Tipo_Fin																	
AF_1 - C7=IRREGULAR	5.25	3.76	-0.21	-1.39	-0.01	0.39	0.61	0.5	29.6	0.0	2.8	7.2	0.01	0.52	0.00	0.04	0.10
AF_2 - C7=ISOLATED	14.98	0.67	0.58	0.35	-0.08	-0.01	-0.17	11.2	5.3	0.3	0.0	1.5	0.51	0.18	0.01	0.00	0.04
AF_3 - C7=RETURNING	3.24	6.71	-1.97	0.92	-0.09	0.62	-0.09	27.4	7.9	0.1	4.3	0.1	0.58	0.13	0.00	0.06	0.00
AF_4 - C7=SLOW WAVE	1.53	15.38	-0.84	-0.58	0.95	-2.59	-0.29	2.4	1.5	4.4	34.8	0.5	0.05	0.02	0.06	0.44	0.01
CUMULATED CONTRIBUTION =								41.5	44.3	4.7	41.8	9.3					
8 . Voltaje																	
AG_1 - C8=100-200	6.77	2.69	-0.86	-0.44	-0.11	0.00	-0.81	10.9	3.8	0.3	0.0	16.3	0.27	0.07	0.00	0.00	0.25
AG_2 - C8=50-100	11.07	1.26	0.21	-0.21	-0.41	-0.40	0.61	1.0	1.4	5.9	5.9	15.0	0.03	0.04	0.13	0.13	0.30
AG_3 - C8=<50	6.20	3.03	0.84	0.59	0.71	0.36	-0.45	9.5	6.3	9.9	2.7	4.5	0.23	0.12	0.17	0.04	0.07
AG_4 - C8=>200	0.95	25.20	-1.76	1.73	0.93	2.28	1.59	6.4	8.3	2.6	16.8	8.7	0.12	0.12	0.03	0.21	0.10
CUMULATED CONTRIBUTION =								27.9	19.8	18.7	25.4	44.5					





CUT OF THE TREE INTO 5 CLUSTERS

CLUSTERS FORMATION (ON ACTIVE CASES)
SUMMARY DESCRIPTION

CLUSTER	COUNT	WEIGHT	CONTENT
bb1b	89	89.00	1 TO 89
bb2b	47	47.00	90 TO 136
bb3b	36	36.00	137 TO 172
bb4b	34	34.00	173 TO 206
bb5b	56	56.00	207 TO 262

LOADINGS AND TEST-VALUES BEFORE CONSOLIDATION
AXES 1 A 3

CLUSTERS			TEST-VALUES					LOADINGS					
IDEN - LABEL	COUNT	ABS.WT.	1	2	3	0	0	1	2	3	0	0	DISTO.
CUT "b" OF THE TREE INTO 5 CLUSTERS													
bb1b - CLUSTER 1 / 5	89	89.00	5.5	3.4	-7.4	0.0	0.0	0.32	0.17	-0.36	0.00	0.00	0.26
bb2b - CLUSTER 2 / 5	47	47.00	7.4	5.0	7.3	0.0	0.0	0.67	0.39	0.54	0.00	0.00	0.89
bb3b - CLUSTER 3 / 5	36	36.00	0.6	-9.4	-5.5	0.0	0.0	0.07	-0.86	-0.48	0.00	0.00	0.97
bb4b - CLUSTER 4 / 5	34	34.00	-0.8	-6.9	7.6	0.0	0.0	-0.09	-0.64	0.68	0.00	0.00	0.89
bb5b - CLUSTER 5 / 5	56	56.00	-13.2	4.9	0.2	0.0	0.0	-1.06	0.34	0.01	0.00	0.00	1.24

CLUSTERING CONSOLIDATION
AROUND CENTERS OF THE 5 CLUSTERS ACHIEVED BY 19 ITERATIONS WITH MOVING CENTERS
BETWEEN-CLUSTERS INERTIA INCREASE

ITERATION	TOTAL INERTIA	INTER-CLUSTERS INERTIA	RATIO
0	1.11914	0.76402	0.68269
1	1.11914	0.79545	0.71077
2	1.11914	0.80077	0.71552
3	1.11914	0.80305	0.71756
4	1.11914	0.80305	0.71756
5	1.11914	0.80305	0.71756

STOP AFTER ITERATION 5. RELATIVE INCREASE OF BETWEEN-CLUSTER INERTIA
WITH RESPECT TO THE PREVIOUS ITERATION IS ONLY 0.000 %.
INERTIA DECOMPOSITION
COMPUTED ON 3 AXES.

	INERTIAS		COUNTS		WEIGHTS		DISTANCES	
INERTIAS	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
BETWEEN CLUSTERS	0.7640	0.8030						
WITHIN CLUSTER								

CLUSTER 1 / 5	0.0821	0.0812	89	89	89.00	89.00	0.2648	0.3088
CLUSTER 2 / 5	0.0399	0.0516	47	53	47.00	53.00	0.8945	0.7995
CLUSTER 3 / 5	0.0417	0.0646	36	48	36.00	48.00	0.9697	0.6942
CLUSTER 4 / 5	0.0351	0.0311	34	32	34.00	32.00	0.8927	0.9529
CLUSTER 5 / 5	0.1563	0.0875	56	40	56.00	40.00	1.2376	1.9182
TOTAL INERTIA	1.1191	1.1191						

RATIO INTER INERTIA / TOTAL INERTIA) : BEFORE .. 0.6827
AFTER .. 0.7176

LOADINGS AND TEST-VALUES AFTER CONSOLIDATION

AXES 1 A 3

CLUSTERS			TEST-VALUES					LOADINGS					
IDEN - LABEL	COUNT	ABS.WT.	1	2	3	0	0	1	2	3	0	0	DISTO.
CUT "b" OF THE TREE INTO 5 CLUSTERS													
bb1b - CLUSTER 1 / 5	89	89.00	5.3	4.8	-8.1	0.0	0.0	0.31	0.24	-0.39	0.00	0.00	0.31
bb2b - CLUSTER 2 / 5	53	53.00	7.0	5.0	8.3	0.0	0.0	0.58	0.36	0.57	0.00	0.00	0.80
bb3b - CLUSTER 3 / 5	48	48.00	-0.4	-9.5	-5.4	0.0	0.0	-0.03	-0.73	-0.40	0.00	0.00	0.69
bb4b - CLUSTER 4 / 5	32	32.00	-1.1	-6.9	7.4	0.0	0.0	-0.12	-0.68	0.69	0.00	0.00	0.95
bb5b - CLUSTER 5 / 5	40	40.00	-13.4	4.7	0.5	0.0	0.0	-1.32	0.40	0.04	0.00	0.00	1.92

COMPOSITION OF: CUT "b" OF THE TREE INTO 5 CLUSTERS

CLUSTER 1 / 5

001 007 008 009 015 017 022 023 030 031 032 033 045 050 056
057 058 059 060 061 063 067 068 071 080 083 084 085 098 105
106 109 111 115 119 120 125 126 130 142 143 146 147 148 155
156 157 163 164 165 166 168 170 176 180 185 190 191 192 194
196 202 209 214 216 218 222 226 227 231 233 236 247 256 258
260 262 263 274 276 285 286 288 300 303 308 312 315 317

CLUSTER 2 / 5

010 013 025 026 028 029 039 043 044 053 066 070 073 075 081
082 087 091 099 101 103 104 107 108 112 121 129 135 137 160
161 162 173 179 183 186 187 200 203 205 223 224 230 265 266
267 268 272 282 287 292 294 310

CLUSTER 3 / 5

002 003 035 038 047 062 072 089 093 114 131 132 141 150 152
158 159 169 178 193 206 207 217 221 232 235 237 238 239 240
242 243 248 249 251 252 261 270 271 273 291 293 295 301 307
309 314 316

CLUSTER 4 / 5

012 024 027 037 040 064 065 094 095 097 100 102 113 124 133
136 138 139 149 151 167 182 198 201 204 219 220 228 229 278
284 318

CLUSTER 5 / 5

004 005 006 020 021 034 042 048 051 092 096 116 123 140 144
145 153 154 171 172 174 181 197 199 208 210 245 246 253 257
259 269 296 297 298 302 304 305 306 319

DESCRIPTION AND CHARACTERISATION OF PARTITIONS
DESCRIPTION OF: CUT "b" OF THE TREE INTO 5 CLUSTER
PARTITION CHARACTERISATION BY OTHER CATEGORICAL VARIABLES
PRINTOUT OF CROSS-TABS BETWEEN THE PARTITION AND OTHER CATEGORICAL VARIABLES
CLUSTERS CHARACTERISATION BY CATEGORICAL VARIABLES
PARTITION CHARACTERISATION BY CATEGORIES
CLUSTERS CHARACTERISATION BY CATEGORIES
CHARACTERISATION BY CATEGORICAL VARIABLES
OF CUT "b" OF THE TREE INTO 5 CLUSTERS

TEST-VALUE	PROB.	NUM . VARIABLE LABEL	KHI-2	DEG.FRE	LT. 5
17.99	**0.000**	**7 . Tipo_Fin**	**373.95**	**12**	**5**
13.46	**0.000**	**6 . Tipo_Inicio**	**225.88**	**12**	**5**
13.29	**0.000**	**8 . Voltaje**	**221.28**	**12**	**5**
8.10	**0.000**	**5 . Ant_Pat**	**120.07**	**20**	**5**
0.61	0.272	3 . Lado	9.90	8	5
0.24	0.404	2 . Reg_Homo	12.53	12	5
0.01	0.497	1 . Loc_Inter1	31.40	32	22

CROSS-TABS OF GROUPS (BY COLUMNS) WITH CATEGORICAL VARIABLES
PRINTOUT BY INCREASING SIGNIFICANCE LEVELS

7 . Tipo_Fin

COUNT / % BY ROW / % BY COLUMN	bb1b	bb2b	bb3b	bb4b	bb5b	MARG
AF_1 - C7=IRREGULAR	1 1.82 1.12	0 0.00 0.00	35 63.64 72.92	17 30.91 53.13	2 3.64 5.00	55 100.00 20.99
AF_2 - C7=ISOLATED	84 53.50 94.38	53 33.76 100.00	13 8.28 27.08	6 3.82 18.75	1 0.64 2.50	157 100.00 59.92
AF_3 - C7=RETURNING	3 8.82 3.37	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	31 91.18 77.50	34 100.00 12.98
AF_4 - C7=SLOW WAVE	1 6.25 1.12	0 0.00 0.00	0 0.00 0.00	9 56.25 28.13	6 37.50 15.00	16 100.00 6.11
OVERALL	89 33.97 100.00	53 20.23 100.00	48 18.32 100.00	32 12.21 100.00	40 15.27 100.00	262 100.00 100.00

KHI2 = 373.95 /DEGREES OF FREEDOM = 12 / EXPECTED FREQUENCIES LESS THAN 5 = 5
PROBA (KHI2 > 373.95) = 0.000 / TEST-VALUE = 17.99

6 . Tipo_Inicio

COUNT / % BY ROW / % BY COLUMN	bb1b	bb2b	bb3b	bb4b	bb5b	MARG
AE_1 - DIPHASIC SHARP WAVE	6 15.00 6.74	1 2.50 1.89	6 15.00 12.50	0 0.00 0.00	27 67.50 67.50	40 100.00 15.27
AE_2 - C6=IRREGULAR	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 100.00 0.00
AE_3 - C6=POLI-SPIKES	7 46.67 7.87	7 46.67 13.21	1 6.67 2.08	0 0.00 0.00	0 0.00 0.00	15 100.00 5.73
AE_4 - C6=SHARP WAVE	74 52.11 83.15	20 14.08 37.74	37 26.06 77.08	4 2.82 12.50	7 4.93 17.50	142 100.00 54.20
AE_5 - C6=SPIKE	2 3.08 2.25	25 38.46 47.17	4 6.15 8.33	28 43.08 87.50	6 9.23 15.00	65 100.00 24.81
OVERALL	89 33.97 100.00	53 20.23 100.00	48 18.32 100.00	32 12.21 100.00	40 15.27 100.00	262 100.00 100.00

KHI2 = 225.88 /DEGREES OF FREEDOM = 12 / EXPECTED FREQUENCIES LESS THAN 5 = 5
PROBA (KHI2 > 225.88) = 0.000 / TEST-VALUE = 13.46

8 . Voltaje

COUNT / % BY ROW / % BY COLUMN	bb1b	bb2b	bb3b	bb4b	bb5b	MARG

	15	0	18	12	26	71
AG_1 - C8=100-200	21.13	0.00	25.35	16.90	36.62	100.00
	16.85	0.00	37.50	37.50	65.00	27.10
	60	5	30	16	5	116
AG_2 - C8=50-100	51.72	4.31	25.86	13.79	4.31	100.00
	67.42	9.43	62.50	50.00	12.50	44.27
	14	46	0	4	1	65
AG_3 - C8=<50	21.54	70.77	0.00	6.15	1.54	100.00
	15.73	86.79	0.00	12.50	2.50	24.81
	0	2	0	0	8	10
AG_4 - C8=>200	0.00	20.00	0.00	0.00	80.00	100.00
	0.00	3.77	0.00	0.00	20.00	3.82
	89	53	48	32	40	262
OVERALL	33.97	20.23	18.32	12.21	15.27	100.00
	100.00	100.00	100.00	100.00	100.00	100.00

KHI2 = 221.28 /DEGREES OF FREEDOM = 12 / EXPECTED FREQUENCIES LESS THAN 5 = 5

PROBA (KHI2 > 221.28) = 0.000 / TEST-VALUE = 13.29

5 . Ant_Pat

COUNT / % BY ROW / % BY COLUMN	bb1b	bb2b	bb3b	bb4b	bb5b	MARG
	4	0	17	0	2	23
AD_1 - C5=INFECTIOUS	17.39	0.00	73.91	0.00	8.70	100.00
	4.49	0.00	35.42	0.00	5.00	8.78
	0	0	0	0	0	0
AD_2 - C5=NO DATA	0.00	0.00	0.00	0.00	0.00	100.00
	0.00	0.00	0.00	0.00	0.00	0.00
	16	13	8	9	10	56
AD_3 - C5=OTHER	28.57	23.21	14.29	16.07	17.86	100.00
	17.98	24.53	16.67	28.13	25.00	21.37
	11	20	8	8	4	51
AD_4 - C5=TRAUMATIC	21.57	39.22	15.69	15.69	7.84	100.00
	12.36	37.74	16.67	25.00	10.00	19.47
	22	11	3	3	8	47
AD_5 - C5=TUMORAL	46.81	23.40	6.38	6.38	17.02	100.00
	24.72	20.75	6.25	9.38	20.00	17.94
	5	7	9	12	7	40
AD_6 - C5=VASCULAR	12.50	17.50	22.50	30.00	17.50	100.00
	5.62	13.21	18.75	37.50	17.50	15.27
	31	2	3	0	9	45
AD_7 - WITHOUT ANTECEDENTS	68.89	4.44	6.67	0.00	20.00	100.00
	34.83	3.77	6.25	0.00	22.50	17.18
	89	53	48	32	40	262
OVERALL	33.97	20.23	18.32	12.21	15.27	100.00
	100.00	100.00	100.00	100.00	100.00	100.00

KHI2 = 120.07 /DEGREES OF FREEDOM = 20 / EXPECTED FREQUENCIES LESS THAN 5 = 5

PROBA (KHI2 > 120.07) = 0.000 / TEST-VALUE = 8.10

3 . Lado

COUNT / % BY ROW / % BY COLUMN	bb1b	bb2b	bb3b	bb4b	bb5b	MARG
	45	29	19	16	17	126
AC_1 - C3=Der	35.71	23.02	15.08	12.70	13.49	100.00
	50.56	54.72	39.58	50.00	42.50	48.09
	44	24	27	14	22	131
AC_2 - C3=Izq	33.59	18.32	20.61	10.69	16.79	100.00
	49.44	45.28	56.25	43.75	55.00	50.00
	0	0	2	2	1	5
3_ - missing category	0.00	0.00	40.00	40.00	20.00	100.00
	0.00	0.00	4.17	6.25	2.50	1.91
	89	53	48	32	40	262
OVERALL	33.97	20.23	18.32	12.21	15.27	100.00
	100.00	100.00	100.00	100.00	100.00	100.00

KHI2 = 9.90 /DEGREES OF FREEDOM = 8 / EXPECTED FREQUENCIES LESS THAN 5 = 5

PROBA (KHI2 > 9.90) = 0.272 / TEST-VALUE = 0.61

2 . Reg_Homo

COUNT / % BY ROW / % BY COLUMN	bb1b	bb2b	bb3b	bb4b	bb5b	MARG
	29	13	19	16	19	96
AB_1 - C2=F34	30.21	13.54	19.79	16.67	19.79	100.00
	32.58	24.53	39.58	50.00	47.50	36.64

	43	25	18	9	15	110
AB_2 - C2=F78	39.09	22.73	16.36	8.18	13.64	100.00
	48.31	47.17	37.50	28.13	37.50	41.98
	13	11	10	6	5	45
AB_3 - C2=Fp12	28.89	24.44	22.22	13.33	11.11	100.00
	14.61	20.75	20.83	18.75	12.50	17.18
	4	4	1	1	1	11
2_ - missing category	36.36	36.36	9.09	9.09	9.09	100.00
	4.49	7.55	2.08	3.13	2.50	4.20
	89	53	48	32	40	262
OVERALL	33.97	20.23	18.32	12.21	15.27	100.00
	100.00	100.00	100.00	100.00	100.00	100.00

KHI2 = 12.53 /DEGREES OF FREEDOM = 12 / EXPECTED FREQUENCIES LESS THAN 5 = 5

PROBA (KHI2 > 12.53) = 0.404 / TEST-VALUE = 0.24

1 . Loc_Inter1

COUNT / % BY ROW / % BY COLUMN	bb1b	bb2b	bb3b	bb4b	bb5b	MARG
	3	2	1	1	1	8
AA_1 - C1=Der	37.50	25.00	12.50	12.50	12.50	100.00
	3.37	3.77	2.08	3.13	2.50	3.05
	16	6	10	6	11	49
AA_2 - C1=F3	32.65	12.24	20.41	12.24	22.45	100.00
	17.98	11.32	20.83	18.75	27.50	18.70
	13	7	7	8	7	42
AA_3 - C1=F4	30.95	16.67	16.67	19.05	16.67	100.00
	14.61	13.21	14.58	25.00	17.50	16.03
	20	11	9	6	6	52
AA_4 - C1=F7	38.46	21.15	17.31	11.54	11.54	100.00
	22.47	20.75	18.75	18.75	15.00	19.85
	23	14	9	3	9	58
AA_5 - C1=F8	39.66	24.14	15.52	5.17	15.52	100.00
	25.84	26.42	18.75	9.38	22.50	22.14
	7	5	8	2	5	27
AA_6 - C1=Fp1	25.93	18.52	29.63	7.41	18.52	100.00
	7.87	9.43	16.67	6.25	12.50	10.31
	6	6	2	4	0	18
AA_7 - C1=Fp2	33.33	33.33	11.11	22.22	0.00	100.00
	6.74	11.32	4.17	12.50	0.00	6.87
	0	0	2	2	1	5
AA_8 - C1=Fz	0.00	0.00	40.00	40.00	20.00	100.00
	0.00	0.00	4.17	6.25	2.50	1.91
	1	2	0	0	0	3
AA_9 - C1=Izq	33.33	66.67	0.00	0.00	0.00	100.00
	1.12	3.77	0.00	0.00	0.00	1.15
	89	53	48	32	40	262
OVERALL	33.97	20.23	18.32	12.21	15.27	100.00
	100.00	100.00	100.00	100.00	100.00	100.00

KHI2 = 31.40 /DEGREES OF FREEDOM = 32 / EXPECTED FREQUENCIES LESS THAN 5 = 22

PROBA (KHI2 > 31.40) = 0.497 / TEST-VALUE = 0.01

CHARACTERISATION BY CATEGORIES OF CLUSTERS OR CATEGORIES
OF CUT "b" OF THE TREE INTO 5 CLUSTERS

CLUSTER 1 / 5

T.VALUE	PROB.	GRP/CAT	CAT/GRP	GLOBAL	CATEGORIES	OF VARIABLES	IDEN	WEIGHT
				33.97	CLUSTER 1 / 5			
bb1b							**89**	
8.69	**0.000**	**53.50**	**94.38**	**59.92**	**C7=ISOLATED**	**Tipo_Fin**	**AF_2**	**157**
6.83	**0.000**	**52.11**	**83.15**	**54.20**	**C6=SHARP WAVE**	**Tipo_Inicio**	**AE_4**	**142**
5.30	**0.000**	**51.72**	**67.42**	**44.27**	**C8=50-100**	**Voltaje**	**AG_2**	**116**
5.13	**0.000**	**68.89**	**34.83**	**17.18**	**WITHOUT ANTECEDENTS**	**Ant_Pat**	**AD_7**	**45**
1.86	**0.031**	**46.81**	**24.72**	**17.94**	**C5=TUMORAL**	**Ant_Pat**	**AD_5**	**47**
1.36	0.088	39.09	48.31	41.98	C2=F78	Reg_Homo	AB_2	110
0.88	0.189	39.66	25.84	22.14	C1=F8	Loc_Inter1	AA_5	58
0.80	0.212	46.67	7.87	5.73	C6=POLI-SPIKES	Tipo_Inicio	AE_3	15
0.61	0.272	38.46	22.47	19.85	C1=F7	Loc_Inter1	AA_4	52
0.44	0.329	35.71	50.56	48.09	C3=Der	Lado	AC_1	126
0.12	0.451	37.50	3.37	3.05	C1=Der	Loc_Inter1	AA_1	8
0.12	0.452	36.36	4.49	4.20	missing category	Reg_Homo	2_	11
-0.04	0.485	32.65	17.98	18.70	C1=F3	Loc_Inter1	AA_2	49
-0.22	0.412	33.33	6.74	6.87	C1=Fp2	Loc_Inter1	AA_7	18
-0.26	0.397	30.95	14.61	16.03	C1=F4	Loc_Inter1	AA_3	42
-0.61	0.271	28.89	14.61	17.18	C2=Fp12	Reg_Homo	AB_3	45
-0.71	0.240	25.93	7.87	10.31	C1=Fp1	Loc_Inter1	AA_6	27
-0.80	0.212	28.57	17.98	21.37	C5=OTHER	Ant_Pat	AD_3	56
-0.84	0.200	30.21	32.58	36.64	C2=F34	Reg_Homo	AB_1	96
-1.57	0.059	17.39	4.49	8.78	C5=INFECTIOUS	Ant_Pat	AD_1	23
-1.96	**0.025**	**21.57**	**12.36**	**19.47**	**C5=TRAUMATIC**	**Ant_Pat**	**AD_4**	**51**
-2.19	**0.014**	**0.00**	**0.00**	**3.82**	**C8=>200**	**Voltaje**	**AG_4**	**10**
-2.32	**0.010**	**6.25**	**1.12**	**6.11**	**C7=SLOW WAVE**	**Tipo_Fin**	**AF_4**	**16**
-2.34	**0.010**	**21.54**	**15.73**	**24.81**	**C8=<50**	**Voltaje**	**AG_3**	**65**
-2.59	**0.005**	**21.13**	**16.85**	**27.10**	**C8=100-200**	**Voltaje**	**AG_1**	**71**
-2.69	**0.004**	**15.00**	**6.74**	**15.27**	**DIPHASIC SHARP WAVE**	**Tipo_Inicio**	**AE_1**	**40**
-3.11	**0.001**	**12.50**	**5.62**	**15.27**	**C5=VASCULAR**	**Ant_Pat**	**AD_6**	**40**
-3.38	**0.000**	**8.82**	**3.37**	**12.98**	**C7=RETURNING**	**Tipo_Fin**	**AF_3**	**34**
-6.31	**0.000**	**1.82**	**1.12**	**20.99**	**C7=IRREGULAR**	**Tipo_Fin**	**AF_1**	**55**
-6.65	**0.000**	**3.08**	**2.25**	**24.81**	**C6=SPIKE**	**Tipo_Inicio**	**AE_5**	**65**

CLUSTER 2 / 5

T.VALUE	PROB.	GRP/CAT	CAT/GRP	GLOBAL	CATEGORIES	OF VARIABLES	IDEN	WEIGHT
				20.23	CLUSTER 2 / 5			
bb2b							**53**	
10.98	**0.000**	**70.77**	**86.79**	**24.81**	**C8=<50**	**Voltaje**	**AG_3**	**65**
7.56	**0.000**	**33.76**	**100.00**	**59.92**	**C7=ISOLATED**	**Tipo_Fin**	**AF_2**	**157**
3.87	**0.000**	**38.46**	**47.17**	**24.81**	**C6=SPIKE**	**Tipo_Inicio**	**AE_5**	**65**
3.39	**0.000**	**39.22**	**37.74**	**19.47**	**C5=TRAUMATIC**	**Ant_Pat**	**AD_4**	**51**
2.14	**0.016**	**46.67**	**13.21**	**5.73**	**C6=POLI-SPIKES**	**Tipo_Inicio**	**AE_3**	**15**
1.12	0.131	33.33	11.32	6.87	C1=Fp2	Loc_Inter1	AA_7	18
0.99	0.162	36.36	7.55	4.20	missing category	Reg_Homo	2_	11
0.93	0.177	23.02	54.72	48.09	C3=Der	Lado	AC_1	126

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  0.70  0.241   22.73   47.17  41.98  C2=F78              Reg_Homo
AB_2    110
  0.67  0.252   24.14   26.42  22.14  C1=F8               Loc_Inter1
AA_5     58
  0.59  0.278   24.44   20.75  17.18  C2=Fp12             Reg_Homo
AB_3     45
  0.46  0.324   23.21   24.53  21.37  C5=OTHER            Ant_Pat
AD_3     56
  0.42  0.337   23.40   20.75  17.94  C5=TUMORAL          Ant_Pat
AD_5     47
  0.02  0.494   21.15   20.75  19.85  C1=F7               Loc_Inter1
AA_4     52
  0.01  0.494   25.00    3.77   3.05  C1=Der              Loc_Inter1
AA_1      8
 -0.06  0.476   18.52    9.43  10.31  C1=Fp1              Loc_Inter1
AA_6     27
 -0.22  0.411   17.50   13.21  15.27  C5=VASCULAR         Ant_Pat
AD_6     40
 -0.39  0.347   16.67   13.21  16.03  C1=F4               Loc_Inter1
AA_3     42
 -0.45  0.328   20.00    3.77   3.82  C8=>200             Voltaje
AG_4     10
 -0.61  0.269   18.32   45.28  50.00  C3=Izq              Lado
AC_2    131
 -1.37  0.085   12.24   11.32  18.70  C1=F3               Loc_Inter1
AA_2     49
 -1.92  0.027   13.54   24.53  36.64  C2=F34              Reg_Homo
AB_1     96
 -1.98  0.024    0.00    0.00   6.11  C7=SLOW WAVE        Tipo_Fin
AF_4     16
 -2.54  0.006   14.08   37.74  54.20  C6=SHARP WAVE       Tipo_Inicio
AE_4    142
 -2.63  0.004    0.00    0.00   8.78  C5=INFECTIOUS       Ant_Pat
AD_1     23
 -2.98  0.001    4.44    3.77  17.18  WITHOUT ANTECEDENTS Ant_Pat
AD_7     45
 -3.20  0.001    2.50    1.89  15.27  DIPHASIC SHARP WAVE Tipo_Inicio
AE_1     40
 -3.48  0.000    0.00    0.00  12.98  C7=RETURNING        Tipo_Fin
AF_3     34
 -4.84  0.000    0.00    0.00  20.99  C7=IRREGULAR        Tipo_Fin
AF_1     55
 -5.74  0.000    0.00    0.00  27.10  C8=100-200          Voltaje
AG_1     71
 -5.94  0.000    4.31    9.43  44.27  C8=50-100           Voltaje
AG_2    116
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CLUSTER  3 /  5
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T.VALUE PROB. ---- PERCENTAGES  ----  CHARACTERISTIC
IDEN WEIGHT
              GRP/CAT CAT/GRP GLOBAL  CATEGORIES           OF VARIABLES
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                                18.32  CLUSTER  3 /  5
bb3b     48
  8.78  0.000   63.64   72.92  20.99  C7=IRREGULAR        Tipo_Fin
AF_1     55
  6.01  0.000   73.91   35.42   8.78  C5=INFECTIOUS       Ant_Pat
AD_1     23
  3.44  0.000   26.06   77.08  54.20  C6=SHARP WAVE       Tipo_Inicio
AE_4    142
  2.65  0.004   25.86   62.50  44.27  C8=50-100           Voltaje
AG_2    116
  1.59  0.056   25.35   37.50  27.10  C8=100-200          Voltaje
AG_1     71
  1.32  0.094   29.63   16.67  10.31  C1=Fp1              Loc_Inter1
AA_6     27
  0.80  0.212   20.61   56.25  50.00  C3=Izq              Lado
AC_2    131
  0.55  0.290   22.22   20.83  17.18  C2=Fp12             Reg_Homo
AB_3     45
  0.54  0.293   22.50   18.75  15.27  C5=VASCULAR         Ant_Pat
AD_6     40
  0.31  0.378   19.79   39.58  36.64  C2=F34              Reg_Homo
AB_1     96
  0.24  0.405   20.41   20.83  18.70  C1=F3               Loc_Inter1
AA_2     49
 -0.02  0.494   17.31   18.75  19.85  C1=F7               Loc_Inter1
AA_4     52
 -0.05  0.479   16.67   14.58  16.03  C1=F4               Loc_Inter1
AA_3     42
 -0.13  0.448   12.50    2.08   3.05  C1=Der              Loc_Inter1
AA_1      8
 -0.32  0.376   15.69   16.67  19.47  C5=TRAUMATIC        Ant_Pat
AD_4     51
 -0.33  0.369    9.09    2.08   4.20  missing category    Reg_Homo
2_      11
 -0.34  0.368   15.00   12.50  15.27  DIPHASIC SHARP WAVE Tipo_Inicio
AE_1     40
 -0.41  0.339   15.52   18.75  22.14  C1=F8               Loc_Inter1
AA_5     58
 -0.45  0.325   11.11    4.17   6.87  C1=Fp2              Loc_Inter1
AA_7     18
 -0.53  0.298   16.36   37.50  41.98  C2=F78              Reg_Homo
AB_2    110
 -0.67  0.251   14.29   16.67  21.37  C5=OTHER            Ant_Pat
AD_3     56
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 -0.84  0.201    6.67    2.08   5.73  C6=POLI-SPIKES       Tipo_Inicio
AE_3     15
 -1.14  0.127    0.00    0.00   3.82  C8=>200              Voltaje
AG_4     10
 -1.15  0.126   15.08   39.58  48.09  C3=Der               Lado
AC_1    126
 -1.81  0.035    0.00    0.00   6.11  C7=SLOW WAVE         Tipo_Fin
AF_4     16
 -2.14  0.016    6.67    6.25  17.18  WITHOUT ANTECEDENTS  Ant_Pat
AD_7     45
 -2.28  0.011    6.38    6.25  17.94  C5=TUMORAL           Ant_Pat
AD_5     47
 -2.95  0.002    6.15    8.33  24.81  C6=SPIKE             Tipo_Inicio
AE_5     65
 -3.24  0.001    0.00    0.00  12.98  C7=RETURNING         Tipo_Fin
AF_3     34
 -4.95  0.000    8.28   27.08  59.92  C7=ISOLATED          Tipo_Fin
AF_2    157
 -5.05  0.000    0.00    0.00  24.81  C8=<50               Voltaje
AG_3     65
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CLUSTER  4 /  5
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T.VALUE PROB. ---- PERCENTAGES  ----  CHARACTERISTIC
IDEN WEIGHT
              GRP/CAT CAT/GRP GLOBAL  CATEGORIES           OF VARIABLES
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                                12.21  CLUSTER  4 /  5
bb4b     32
  7.95  0.000   43.08   87.50  24.81  C6=SPIKE             Tipo_Inicio
AE_5     65
  4.21  0.000   56.25   28.13   6.11  C7=SLOW WAVE         Tipo_Fin
AF_4     16
  4.16  0.000   30.91   53.13  20.99  C7=IRREGULAR         Tipo_Fin
AF_1     55
  3.16  0.001   30.00   37.50  15.27  C5=VASCULAR          Ant_Pat
AD_6     40
  1.47  0.071   16.67   50.00  36.64  C2=F34               Reg_Homo
AB_1     96
  1.20  0.114   19.05   25.00  16.03  C1=F4                Loc_Inter1
AA_3     42
  1.19  0.116   16.90   37.50  27.10  C8=100-200           Voltaje
AG_1     71
  0.98  0.163   22.22   12.50   6.87  C1=Fp2               Loc_Inter1
AA_7     18
  0.78  0.218   16.07   28.13  21.37  C5=OTHER             Ant_Pat
AD_3     56
  0.63  0.265   15.69   25.00  19.47  C5=TRAUMATIC         Ant_Pat
AD_4     51
  0.51  0.305   13.79   50.00  44.27  C8=50-100            Voltaje
AG_2    116
  0.39  0.347   12.50    3.13   3.05  C1=Der               Loc_Inter1
AA_1      8
  0.20  0.422   12.24   18.75  18.70  C1=F3                Loc_Inter1
AA_2     49
  0.04  0.482   13.33   18.75  17.18  C2=Fp12              Reg_Homo
AB_3     45
  0.04  0.483   12.70   50.00  48.09  C3=Der               Lado
AC_1    126
 -0.11  0.458   11.54   18.75  19.85  C1=F7                Loc_Inter1
AA_4     52
 -0.26  0.398    9.09    3.13   4.20  missing category     Reg_Homo
2_      11
 -0.44  0.329    7.41    6.25  10.31  C1=Fp1               Loc_Inter1
AA_6     27
 -0.57  0.286   10.69   43.75  50.00  C3=Izq               Lado
AC_2    131
 -0.63  0.265    0.00    0.00   3.82  C8=>200              Voltaje
AG_4     10
 -1.11  0.134    0.00    0.00   5.73  C6=POLI-SPIKES       Tipo_Inicio
AE_3     15
 -1.11  0.133    6.38    9.38  17.94  C5=TUMORAL           Ant_Pat
AD_5     47
 -1.52  0.064    8.18   28.13  41.98  C2=F78               Reg_Homo
AB_2    110
 -1.55  0.061    6.15   12.50  24.81  C8=<50               Voltaje
AG_3     65
 -1.70  0.044    5.17    9.38  22.14  C1=F8                Loc_Inter1
AA_5     58
 -1.71  0.043    0.00    0.00   8.78  C5=INFECTIOUS        Ant_Pat
AD_1     23
 -2.38  0.009    0.00    0.00  12.98  C7=RETURNING         Tipo_Fin
AF_3     34
 -2.70  0.003    0.00    0.00  15.27  DIPHASIC SHARP WAVE  Tipo_Inicio
AE_1     40
 -2.96  0.002    0.00    0.00  17.18  WITHOUT ANTECEDENTS  Ant_Pat
AD_7     45
 -4.89  0.000    3.82   18.75  59.92  C7=ISOLATED          Tipo_Fin
AF_2    157
 -5.03  0.000    2.82   12.50  54.20  C6=SHARP WAVE        Tipo_Inicio
AE_4    142
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CLUSTER 5 / 5

T.VALUE	PROB.	GRP/CAT	CAT/GRP	GLOBAL	CATEGORIES	OF VARIABLES	IDEN	WEIGHT
				15.27	CLUSTER 5 / 5			
bb5b							**40**	
11.08	**0.000**	**91.18**	**77.50**	**12.98**	**C7=RETURNING**	**Tipo_Fin**	**AF_3**	**34**
8.42	**0.000**	**67.50**	**67.50**	**15.27**	**DIPHASIC SHARP WAVE**	**Tipo_Inicio**	**AE_1**	**40**
5.35	**0.000**	**36.62**	**65.00**	**27.10**	**C8=100-200**	**Voltaje**	**AG_1**	**71**
4.40	**0.000**	**80.00**	**20.00**	**3.82**	**C8=>200**	**Voltaje**	**AG_4**	**10**
2.02	**0.022**	**37.50**	**15.00**	**6.11**	**C7=SLOW WAVE**	**Tipo_Fin**	**AF_4**	**16**
1.36	0.086	19.79	47.50	36.64	C2=F34	Reg_Homo	AB_1	96
1.31	0.095	22.45	27.50	18.70	C1=F3	Loc_Inter1	AA_2	49
0.76	0.224	20.00	22.50	17.18	WITHOUT ANTECEDENTS	Ant_Pat	AD_7	45
0.51	0.303	16.79	55.00	50.00	C3=Izq	Lado	AC_2	131
0.42	0.337	17.86	25.00	21.37	C5=OTHER	Ant_Pat	AD_3	56
0.26	0.396	18.52	12.50	10.31	C1=Fp1	Loc_Inter1	AA_6	27
0.23	0.411	17.50	17.50	15.27	C5=VASCULAR	Ant_Pat	AD_6	40
0.18	0.429	17.02	20.00	17.94	C5=TUMORAL	Ant_Pat	AD_5	47
0.12	0.452	15.52	22.50	22.14	C1=F8	Loc_Inter1	AA_5	58
0.08	0.469	16.67	17.50	16.03	C1=F4	Loc_Inter1	AA_3	42
-0.05	0.478	9.09	2.50	4.20	missing category	Reg_Homo	2_	11
-0.38	0.352	12.50	2.50	3.05	C1=Der	Loc_Inter1	AA_1	8
-0.44	0.328	13.64	37.50	41.98	C2=F78	Reg_Homo	AB_2	110
-0.57	0.284	8.70	5.00	8.78	C5=INFECTIOUS	Ant_Pat	AD_1	23
-0.60	0.276	13.49	42.50	48.09	C3=Der	Lado	AC_1	126
-0.60	0.274	11.54	15.00	19.85	C1=F7	Loc_Inter1	AA_4	52
-0.60	0.274	11.11	12.50	17.18	C2=Fp12	Reg_Homo	AB_3	45
-1.39	0.082	9.23	15.00	24.81	C6=SPIKE	Tipo_Inicio	AE_5	65
-1.42	0.077	0.00	0.00	5.73	C6=POLI-SPIKES	Tipo_Inicio	AE_3	15
-1.47	0.071	7.84	10.00	19.47	C5=TRAUMATIC	Ant_Pat	AD_4	51
-1.69	**0.045**	**0.00**	**0.00**	**6.87**	**C1=Fp2**	**Loc_Inter1**	**AA_7**	**18**
-2.73	**0.003**	**3.64**	**5.00**	**20.99**	**C7=IRREGULAR**	**Tipo_Fin**	**AF_1**	**55**
-3.83	**0.000**	**1.54**	**2.50**	**24.81**	**C8=<50**	**Voltaje**	**AG_3**	**65**
-4.46	**0.000**	**4.31**	**12.50**	**44.27**	**C8=50-100**	**Voltaje**	**AG_2**	**116**
-5.00	**0.000**	**4.93**	**17.50**	**54.20**	**C6=SHARP WAVE**	**Tipo_Inicio**	**AE_4**	**142**
-8.30	**0.000**	**0.64**	**2.50**	**59.92**	**C7=ISOLATED**	**Tipo_Fin**	**AF_2**	**157**