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The effect of epilepsy on emotional state in Hamilton and Beck questionnaire studies

Depressive symptoms are well known as often accompanying many of primary systemic disorders of organic origin. It is highlighted that they ought to be carefully recognized as significantly influencing the course and outcome of underlying condition and because their proper management helps resolve physical disturbances (2). In the group of neurological illnesses especially patients with epilepsy, both cryptogenic and symptomatic, with its chronic course, unpredictability of fits, restrictions on life and taking long-term medication have higher rates of differential psychological and psychiatric problems, such as psychosocial and cognitive issues, personality disorders, psychoses or depression and anxiety; the last two are estimated as the most frequent behavioural problems in adults with epilepsy (1, 3, 5). Not only diagnosis of epilepsy in conjunction with changes in sufferers' life style but also results of treatment and antiepileptic drugs the same might additionally influence emotional state of patients (4, 6). In the presented paper we have testified incidence of depressive symptoms in adults with newly recognized and chronic treatable and intractable epilepsy.

OBJECTIVE

The aim of the paper was the comparison of occurrence of depressive symptoms in adults with newly diagnosed and chronic treatable and resistant epilepsy by the use of questionnaire testifying.

MATERIAL AND METHODS

A total number of 60 adult outpatients with definite diagnosis of epilepsy according to classification of International League Against Epilepsy (1989) were divided into three groups: 1) newly recognized, 2) chronic with remission lasting above 6 months, 3) chronic refractory to pharmacotherapy with at least two epileptic fits per month, all treated with antiepileptic drugs. Patients with mental retardation were excluded. Characteristics of patients is presented in Table 1. Two questionnaires were applied once in each patient

Table 1. Patients' characteristics

	Newly diagnosed n-20	Chronics--pharmacoresistant n-22	Chronics-remission n-18
Age (years)	24.6	29.8	26.2
Gender (men) (%)	55	59.1	61.1
Epiduration (years)	0.8	6.7	3.4
Etiology (cryptogenic) (%)	75	63.6	83.3
Monthly seizure Frequency/patient during 3 months (n)	1.9	5.7	0.18
Seizure type (%) – partial – generalized	 45 60	 73.6 59.1	 100 -
Mean actual number of AEDs /patient	1.15	3.1	1.94

• Control group n – 20, age – 23.4, gender (men) (%) – 55.

during seizure-free interval for testifying occurrence of depressive symptoms: 1) 21-item Hamilton Depressive Scale (HDRS) conducted by a physician and 2) Beck Depressive Inventory (BDI) – filled up by a patient itself. The intensity of symptoms was expressed as a total score index in HDRS and BDI and compared in three subgroups of patients and age/sex matched group of healthy volunteers. The range of HDRS score was between 0 (lack of disturbances) and 64 (maximal possible intensity of depressive symptoms) or similarly: 0-65 in BDI.

RESULTS

Mean total score on HDRS in patients with newly recognized epilepsy equalled 25.4 (4.1) and was greater than that noted in chronic pharmacoresistant patients – 12.3 (5.2)

and in chronics with remission of epileptic fits 6.4 (4.2). In healthy controls mean HDRS score equalled 3.4 (1.8) (Fig. 1). Scoring for patients with newly recognized epilepsy was

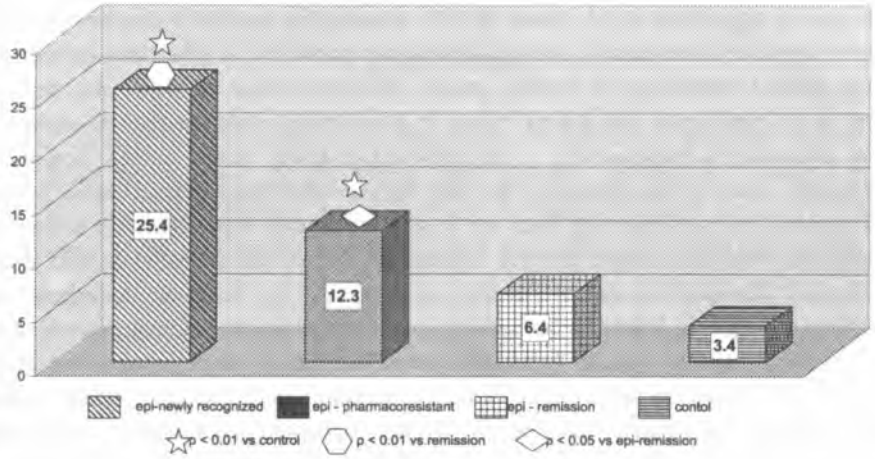

Fig. 1. Total intensity of depressive symptoms in BDL

in upper limits approved for moderate depressive episode, and in chronic-pharmacoresistant group it was mean value accepted for mild depressive syndrome.

Comparable distribution of scoring between groups was obtained in patients' performed testifying by the use of BDI; the values equalled 41.2 (6.8) for newly diagnosed, 19.6 (5.2) for chronic patients with active epilepsy and was distinctly lesser in chronic epileptics during remission of disorder - 7.2 (2.4), comparably with healthy controls – 4.8 (2.7). Only in newly diagnosed and chronic pharmacoresistant patients level of scoring has suggested possibility of depressive disturbances (Fig. 2).

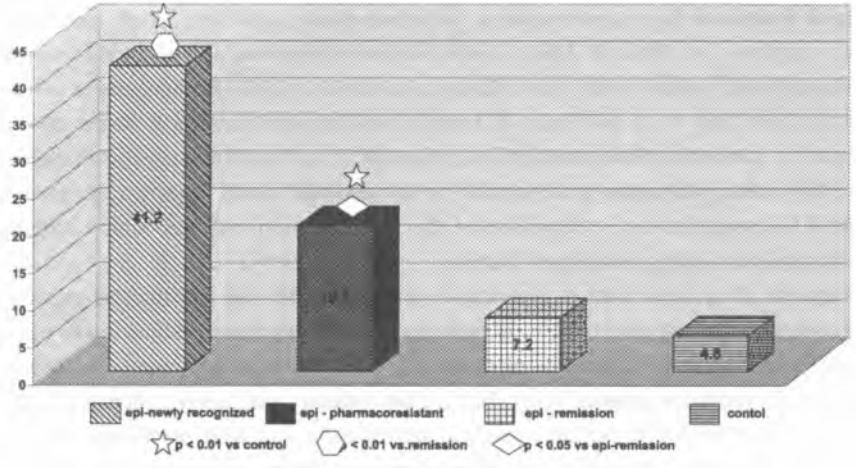

Fig. 2. Total intensity of depressive symptoms in HDRS

DISCUSSION

It is estimated that depression is two-three times as frequent in patients with epilepsy as in general population (4, 6). About 40-70% of epileptics has had a depressive episode in their course of illness and 12 % risk of suicides is above five to nine times greater than among general population of healthy people. This prevalence of depressive reactions seems to be multifactor and among others it is associated with the fear of having seizures, psychological consequences of uncontrolled disability during attacks, non-acceptance of self, sense of discrimination but also with an underlying organic lesion in these CNS regions that are important both for epilepsy symptoms expression and behavioural disturbances with their similar changes in processes of neurotransmission as well as with biochemical changes induced by chronic treatment (7, 9). Some of commonly used antiepileptic drugs are known as influencing psychomotor activity, mental processing and also emotional state in positive (anxiolytic, mood stabilizing, antidepressive) but also in negative sense (inducing agitation, psychoses, depression) (8, 10, 11, 13). Although many papers confirm depressive reactions in chronic epileptics particularly with organic etiology, neurologic disability, severe course of illness and pharmacoresistance, little is known about incidence of depression in newly diagnosed patients (9, 12). In our study intensity of depressive symptoms revealed when testifying patients by the use of clinical questionnaires was more distinct in those with a newly recognized than in patients with a prolonged course of illness. Results were comparable then two batteries of questions were applied independently, one performed by a physician and another one fulfilled by a patient itself. The mean level of total score – 41.2 points on HDRS and 25 – on BDI that was estimated for patients with an early course of epilepsy was distinctly characteristic of depressive disturbances of moderate and mild intensity, respectively. An analysis of particular subscales showed disturbances both in so-called major features such as lowered mood, level of interests, complex activity and work, energy/fatigue as well as in minor additional symptoms (e.g., concentration, self-esteem/fault, agitation, sleep, emotional or somatic symptoms of anxiety). Mild depressive symptoms were also revealed in chronic pharmacoresistant patient with active disease, although results of management were unsatisfactory, but they were not found in chronic patients with remission in the course of treatment. It is obvious that results of questionnaire examination are not sufficient and decisive for making diagnosis of depression in its nosologic sense. However, they seem to be helpful in estimation and comparison of the level of emotional functioning in patients with different condition of the same illness.

Diagnosis of epilepsy with its well-known stigmatization and multifactory psychological and social impairments concerning self-esteem, independence, educational, employment and social activity, several restrictions and discriminations may act as a factor for elucidating depressive reactions (7,13). In care for patients with early epilepsy pharmacological treatment forced by suitable medical information and also psychological support offered by a physician, care-givers and psychologists might be helpful in diminishing fear

about epilepsy and acceptation of the diagnosis that seems to be particularly essential in minimizing these complex dysfunctions (1, 3).

CONCLUSIONS

The occurrence of depressive symptoms in epileptic patients when testified both by the use of physician and patient performed clinical questionnaire, was comparably more distinct in sufferers with an early course of epilepsy than in chronic patients, both treatable and pharmacoresistant.

REFERENCES

1. Baker G. A., et al.: Quality of life in people with epilepsy. A European Study. Epilepsia, 37, 148, 1997.
2. Bowden C. L.: New concepts in mood stabilisation: evidence for the effectiveness of valproate and lamotrigine. Neuropsychology, 19, 194, 1998.
3. Chaplin J. E. et al.: National general practice study of epilepsy. The social and psychological effects of a recent diagnosis of epilepsy. BMJ, 302, 1416, 1992.
4. Cockerell O. C. et al.: Acute psychological disorders in patients with epilepsy: a nation wide study. Epilepsy Res., 25, 119, 1996.
5. Farwell J. R. et al.: Neuropsychological abilities of children with epilepsy. Epilepsia, 26, 395, 1985.
6. Ferrie C. D. et al.: Psychotic and severe behavioural reactions with vigabatrin, a review. Acta Neurol. Scand., 93,1,1996.
7. Jacoby A. et al.: The clinical course of epilepsy and its psychological correlates: findings from a UK community study. Epilepsia, 37, 148, 1996.
8. Ketter T. A. et al.: Positive and negative psychiatric effects of antiepileptic drugs in patients with seizure disorders. Neurology, 5, S-53, 1999.
9. Klove H., Matthews C. G.: Neuropsychological studies of patients with epilepsy. In: R. W. Reitan, L. A. Davison, eds.: Clinical Neurology, 237, John Wiley, New York.
10. Levinson D. F., Devinsky O.: Psychiatric adverse event during vigabatrin therapy. Neurology, 53, 1503, 1999.
11. Provinciali L. et al.: Influence of vigabatrin on cognitive performance and behaviour in patients with drug resistant epilepsy. Acta Neurol. Scand., 94, 12, 1996.
12. Schmitz B.: Psychiatric syndromes related to antiepileptic drugs. Epilepsia, 40 (suppl. 10), S 65, 1999.

13. Walden J., Hesslinger B.: Value of old and new anticonvulsants in the treatment of psychiatric diseases. Fortsch. Neurol. Psychiatry, 63, 320, 1995.

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SUMMARY

Patients with epilepsy present higher rate of psychological and psychiatric problems and emotional disturbances are estimated as the most frequent ones with prevalence of depression about tree times higher than it was observed in general population. In the presented study the occurrence of depressive symptoms was compared in a total of 60 adult patients with newly recognised and chronic epilepsy during remission of illness as well as pharmacoresistant. 21-items Hamilton Depressive Scale and Beck Depressive Inventory were applied once in each testified patient, consecutively by a physician or a patient himself during interictal period. Our study has found a higher level of depressive signs in newly diagnosed than in chronic patients during remission of illness but also in patients with an active process. The scoring rates both on HDRS and BDI were respectively characteristic of moderate or mild intensity of depressive disturbances. This comparison allows us to make a suggestion that diagnosis of epilepsy with its well-known stigmatisation and limitations of different life activities may act as a stressing factor that enhances anxiety and depressive reactions in early phase of illness.

Ocena stanu emocjonalnego pacjentów z padaczką w badaniach z zastosowaniem kwestionariuszy Hamiltona i Becka

Zaburzenia depresyjne często współwystępują z organicznymi schorzeniami układowymi, również toczącymi się w układzie nerwowym. Spośród schorzeń neurologicznych szczególnie osoby chorujące na padaczkę doświadczają różnorodnych dysfunkcji w sferze funkcjonowania psychicznego. Zaburzenia lękowe i depresyjne są notowane dwu-trzykrotne częściej w tej populacji w porównaniu z osobami zdrowymi. W prezentowanym badaniu porównano występowanie zaburzeń o charakterze depresyjnym u dorosłych pacjentów z nowo zdiagnozowaną padaczką oraz u chorujących przewlekle, u których uzyskano remisję choroby, jak i u osób z padaczką lekooporną. Oceny zaburzeń dokonano przy wykorzystaniu kwestionariuszy depresji Hamiltona oraz Becka, przeprowadzając badanie u każdego chorego jednorazowo odpowiednio przez lekarza oraz samego pacjenta w okresie pomiędzy napadami padaczkowymi. W badaniach obydwoma kwestionariuszami wykazano zgodnie wyższe wartości w skali zaburzeń depresyjnych u chorych nowo zdiagnozowanych w porównaniu z chorującymi od wielu lat, zarówno tych, u których w wyniku far-

makoterapii uzyskano remisję objawów, jak i u pacjentów z lekoopornością. Uzyskane różnice odpowiadały wartościom typowym dla odpowiednio umiarkowanego i łagodnego poziomu zaburzeń depresyjnych. Można przypuszczać, że ustalenie diagnozy padaczki, w związku ze stygmatyzacją, jaką sprowadza to schorzenie, oraz licznymi ograniczeniami życiowych aktywności, może być znaczącym czynnikiem stresującym, warunkującym występowanie zaburzeń depresyjnych w początkowym okresie trwania choroby.