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Resumption of Benzodiazepine Use After Withdrawal in Hospital – A Follow-up Study*

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Introduction

Despite the ongoing controversy about the benefit-risk-ratio of benzodiazepines in psychiatric treatment (3, 5), they are still widely used (4, 6). In our hospital we follow the general policy that there is hardly any indication for long-term benzodiazepine treatment. Thus, patients who take benzodiazepines and get admitted to our hospital are regularly withdrawn. This study was intended to investigate how many patients would start to take benzodiazepines again after discharge and how far characteristics of the patients could predict that resumption of benzodiazepine use.

Method

For 13 months, all inpatients were routinely screened for benzodiazepines by the emit-d. a. u. benzodiazepine assay after admission (1). In 134 patients with various psychiatric diagnoses, benzodiazepines were detected in the urine. Although 19 patients received benzodiazepines in the hospital for a maximum of 2 weeks, none of them was prescribed benzodiazepines at the time of discharge. None of the patients underwent a special therapeutic program for withdrawing benzodiazepines. After a follow-up period of 8–16 months, attempts were made to interview those patients again and their physicians focussing on whether the patients had resumed taking benzodiazepines in the meantime. Resumer and non-resumer characteristics which could already be assessed at the time of admission were compared.

Results

Follow-up data of 87 patients could be gained. In 57 cases both patient and physician could be interviewed. In 25 cases the physicians only, in 5 cases the patients only were available. A contradiction in statements of patient and physician was not found in any case. Basic characteristics, such as sex, age, and psychiatric diagnosis according to ICD-9 classification of the patients whose physicians or who themselves had been interviewed did not significantly differ from those of the 47 patients who could not be traced. Twenty-five patients (29%) had started to take benzodiazepines again and 62 patients (71%) had not. Table 1 summarizes age and sex of the two groups. Additionally, it shows in how many patients of each group a critical review of the patient's history taken during inpatient treatment had revealed criteria for benzodiazepine abuse or dependence according to the DSM-III classification. The analysis of WHO-criteria yields the same pattern.

The tendency that female patients resume benzodiazepine use more frequently fails to reach statistical significance. Although the percentage of patients fulfilling DSM III criteria of benzodiazepine abuse or dependence is somewhat higher in resumers than in non-resumers, this difference is not statistically significant. From a clinical point of view, it seems interesting that criteria of dependence were found in 7 patients who were not diagnosed accordingly by their treating psychiatrist. Only 4 of them could be interviewed after the follow-up period and all had started to take benzodiazepines again. Table 2 shows the primary psychiatric diagnoses according to the ICD-9 classification of resumers and non-resumers.

The psychiatric diagnoses according to the ICD-9 classification were not different in the two groups. Nor did other characteristics such as socio-economic status of the patients or the special type of benzodiazepine patients had taken previously clearly differ between the two groups.

* These findings are part of the doctorate thesis of O. L.

Table 1 Age, sex, and presence of benzodiazepine abuse or dependence according to DSM-III in resumers and non-resumers

	Resumption of benzodiazepine use (N = 25)		No resumption of benzodiazepine use (N = 62)		p
	Mean	SD	Mean	SD	
Age (years)	48.2	14.2	45.1	15.8	n.s.
Sex (female/male)	19 (76%)/ 6 (24%)		37 (60%)/ 25 (40%)		n.s. $p < 0.10$
Criteria for benzodiazepine abuse or dependence fulfilled	10 (40%)		17 (27%)		n.s.

Table 2 Primary psychiatric diagnoses according to ICD-9 classification in resumers and non-resumers

	Resumption of benzodiazepine use (N = 25)	No resumption of benzodiazepine use (N = 62)
Organic or psychotic disorder	16 (64%)	36 (58%)
Neurotic, reactive or personality disorder	9 (36%)	22 (36%)
Drug or alcohol dependence	–	4 (6%)

Table 3 Duration of continuous benzodiazepine use preceding admission in resumers and non-resumers

Duration of benzodiazepine use	Resumption of benzodiazepine use (N = 19)	No resumption of benzodiazepine use (N = 33)	p
> 1 month	15 (74%)	19 (58%)	n.s.
> 3 months	15 (74%)	14 (42%)	< 0.05
> 6 months	14 (68%)	10 (30%)	< 0.01
> 1 year	3 (16%)	5 (15%)	n.s.
> 5 years	1 (5%)	3 (9%)	n.s.

The only significant difference was found in the duration of benzodiazepine use prior to admission. Fifty-two of the 87 patients had made clear statements about how long they had continuously taken benzodiazepines prior to admission. These statements were categorized into 5 different groups: Benzodiazepine use for at least one month, three months, six months, over more than one year, and finally over more than five years. Table 3 compares those statements of the two groups.

There is a slight tendency that resumers had taken benzodiazepines for more than one month more often than non-resumers. However, the clearest difference between the two groups is found in statements about a continuous benzodiazepine use of more than three or six months prior to admission. 68% of the resumers stated that they had taken benzodiazepines for more than 6 months, while only 30% of the non-resumers did so. Frequency of continuous benzodiazepine use over more than one year or more than five years does not differ between resumers and non-resumers.

Discussion

The lower limit of detection of the enzyme immuno assay is too high for assessment of the intake of regular doses of bromazepam or lorazepam, two of the most widely used benzodiazepines in this country (1). Therefore, it can be assumed that more patients had actually taken benzodiazepines than we could diagnose and include in the follow-up study. However, we assume that this should not affect the present findings.

Since there was no contradiction between statements of patients and their physicians, a relevant tendency to conceal the actual use of benzodiazepines among those patients cannot be supposed. This would be in accordance with our previous experiences (7). Our findings present little evidence that usual clinical data would allow any prediction whether patients resume taking benzodiazepines after discharge. It seems surprising that criteria for abuse or dependence do not significantly correlate with the resumption of benzodiazepine use. One explanation may be that the problem of actual benzodiazepine dependence is not reflected by these criteria adequately. As far as the variables we looked at are concerned the best prediction is achieved when the patient is simply asked for how long he had continuously taken benzodiazepines already. A period of 6 months may be regarded as a critical threshold.

We are aware of several short-comings of the study. In particular, further and more detailed information about patients' symptoms and drug-taking behaviour and about additional treatments within the follow-up period are still lacking.

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