

Pathomorphosis of Vascular Dementia with Psychotic Symptoms

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Abstract

Objective: To study the pathomorphosis of vascular dementia over the past 30 years. The study of the pathomorphosis of mental disorders makes significant adjustments to the criteria for diagnosis and nosography. Dementia has also undergone pathomorphosis over the years.

Materials and Methods: The research was carried out in the Psychiatric Hospitals in Azerbaijan. A retrospective analysis was carried out for the period 1990-1999, which were compared with a similar contingent during 2010-2020.

Results: The number of hospitalized patients with vascular dementia has increased over the past 10 years, which means both an increase in the incidence of the disease and an increase in symptoms requiring psychiatric treatment.

Conclusions: Pathomorphosis has also manifested itself in sex. Thus, the number of female patients has increased in the last 10 years. As a result of the disease, there is a positive trend, a decrease in mortality.

Key words: vascular dementia; pathomorphosis; psychotic symptoms; pandemic

Introduction

Everything around us is changing. The world is constantly evolving and changing rapidly. The same thing happens with the human body and mind. This means that diseases are changing. Some of them are exacerbated, and some are no longer as scary as they used to be. Some diseases even disappear as a result of this change. In medicine, this is called pathomorphosis, and sometimes nosomorphosis. Pathomorphosis (from the ancient Greek πάθος - suffering, illness and μορφή - type, form) - a change in the signs of a disease, as well as a change in morbidity and causes of death under the influence of various influences and external factors. The complexity and variety of reasons leading to a change in the clinical picture, course and outcomes of the disease form a steady interest of researchers in these problems. 1929 German psychologist Willie Hellpach introduced a new term "pathomorphosis" [1]. L.K. Khokhlov, G. Avrutskiy in 1975, S.F. Semenov in his research wrote about various types of pathomorphoses [2, 3].

There are various definitions of pathomorphism: "change in the clinical and anatomical manifestations of the disease, as well as the structure of morbidity and mortality under the influence of various influences", "amendment to the prevailing ideas about the stability of nosological forms", etc. [4, 5, 6].

The term "pathomorphosis" is often used in anatomy, microbiology, clinic, especially in the clinic of infectious diseases; in psychiatry, this term is used quite widely, but not always adequately. Pathomorphosis of mental disorders has long been discussed in the psychiatric community [7, 8].

The problem of the pathomorphosis of mental disorders acquired particular urgency in the second half of the twentieth century. This is associated not only with a change in the clinical picture and the nature of the course of mental disorders, but also with a significant revision of views on their nature [9].

The study of the pathomorphosis of mental disorders makes significant adjustments to the criteria for diagnosis and nosography [10].

As we have already mentioned, there are different types of pathomorphoses. In most cases, the following types of pathomorphosis have been studied and observed in psychiatry: psychogenic pathomorphosis, psychosomatic pathomorphosis, somatogenic pathomorphosis, ecological pathomorphosis, drug pathomorphosis, cultural pathomorphosis, etc. Some types of pathomorphosis cannot be used to explain mental changes.

For example, the article mentions: “Despite the importance of the processes of therapeutic pathomorphosis in changing the structure of mental disorders, it does not explain many of the most significant changes in the course of illness. Aspects of mental disorders, such as the age of onset of the disease, the characteristics of manifestations, as well as a change in the ratio of forms of mental disorders, cannot be a consequence of drug pathomorphosis, since they are formed before therapeutic interventions [11].

Dementia, which has been called a pandemic since the middle of the last century and which is one of the biggest problems in an aging society, has also undergone pathomorphosis over the years. Dementia develops in one person every 3 seconds. This figure is expected to increase to 152 million by 2050 [12, 13].

Among them, vascular dementia ranks second with 30% [14, 15, 16]. In vascular dementia, one or another psychopathological symptom is observed in 33.7% of cases, and 2 or more symptoms - in 64.6% of cases [17].

Considering all this, it can be concluded that the pathomorphosis of vascular dementia with psychotic symptoms requires more detailed study.

The purpose of the study

To study the pathomorphosis of vascular dementia over the past 30 years. Thus, a brief analysis of the literature data gave us the basis to form the next goal of the study - to study the pathomorphosis of vascular dementia over the past 30 years.

Materials and methods

The research was carried out in the Republican Psychiatric Hospital No. 1 and Clinical Psychiatric Hospital No. 2 of the Ministry of Health of Azerbaijan. A retrospective analysis was carried out, the frequency of diagnosing vascular dementia among hospitalized patients was studied

using a descriptive method of epidemiological analysis, and the role of this pathology in the structure of mental morbidity was established.

At the second stage, a continuous detailed study of the archival case histories of all patients undergoing inpatient treatment of vascular dementia with psychotic symptoms in the period 1990-1999 was carried out, which were compared with a similar contingent that we observed during 2010-2020.

The analysis of the syndromological structure of disorders, anamnestic data was carried out to establish clinical dynamics to assess the outcome. A total of 431 case histories were analyzed. Some medical records in which data was lost were excluded from the study, and patients with vascular dementia who had to stay in hospital due to lack of caregivers were excluded from the study for more accurate results. The data were collected and processed using the SPSS-23 software.

Results and discussion

During the research, we tried to explore the following topics.

1. Change in the number of hospitalized patients,
2. Change in the average age of patients,
3. The number of psychotic symptoms,
4. Changes in the duration of inpatient treatment,
5. Changes as a result of treatment.

You are provided with information and results that can be accurately calculated and obtained in SPSS. The 431 subjects had a mean age of 70, 6 ±7, 6 years. Of the 431 subjects, 256 (60, 1%) were women.

In the course of the study, we examined the increase in the number of patients with vascular dementia treated in hospital in 1990–1999 and 2010–2019 compared to other inpatients (Figure 1).

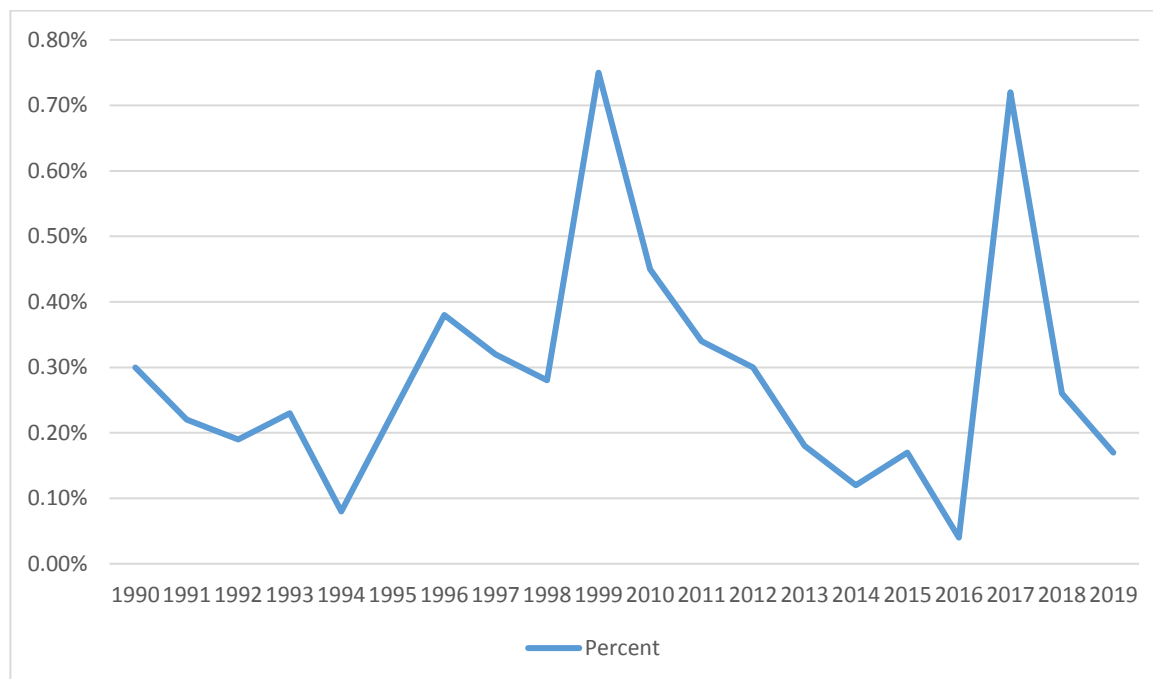


Figure 1: Percentage of patients with vascular dementia receiving treatment over 1990-1999 and 2010-2019 the years.

The distribution of patients with vascular dementia by years is included in Table 1.

Treatment year	Frequency	Percent
1990	7	1.6
1991	10	2.3
1992	7	1.6
1993	10	2.3
1994	3	0.7
1995	8	1.9
1996	12	2.8
1997	9	2.1
1998	9	2.1
1999	22	5.2
2010	25	5.9
2011	26	6.1
2012	33	7.7
2013	21	4.9
2014	22	5.2
2015	40	9.4
2016	21	4.9
2017	54	12.7
2018	45	10.6
2019	42	9.9
Total	426	100.0

We tried to learn the change in the number of male and female patients with vascular dementia who received treatment in 1990-1999 and 2010-2019. Chi square test was used. (Table 2). The change in gender by years is given in Figure 2.

Table 1: The distribution of patients with vascular dementia by years

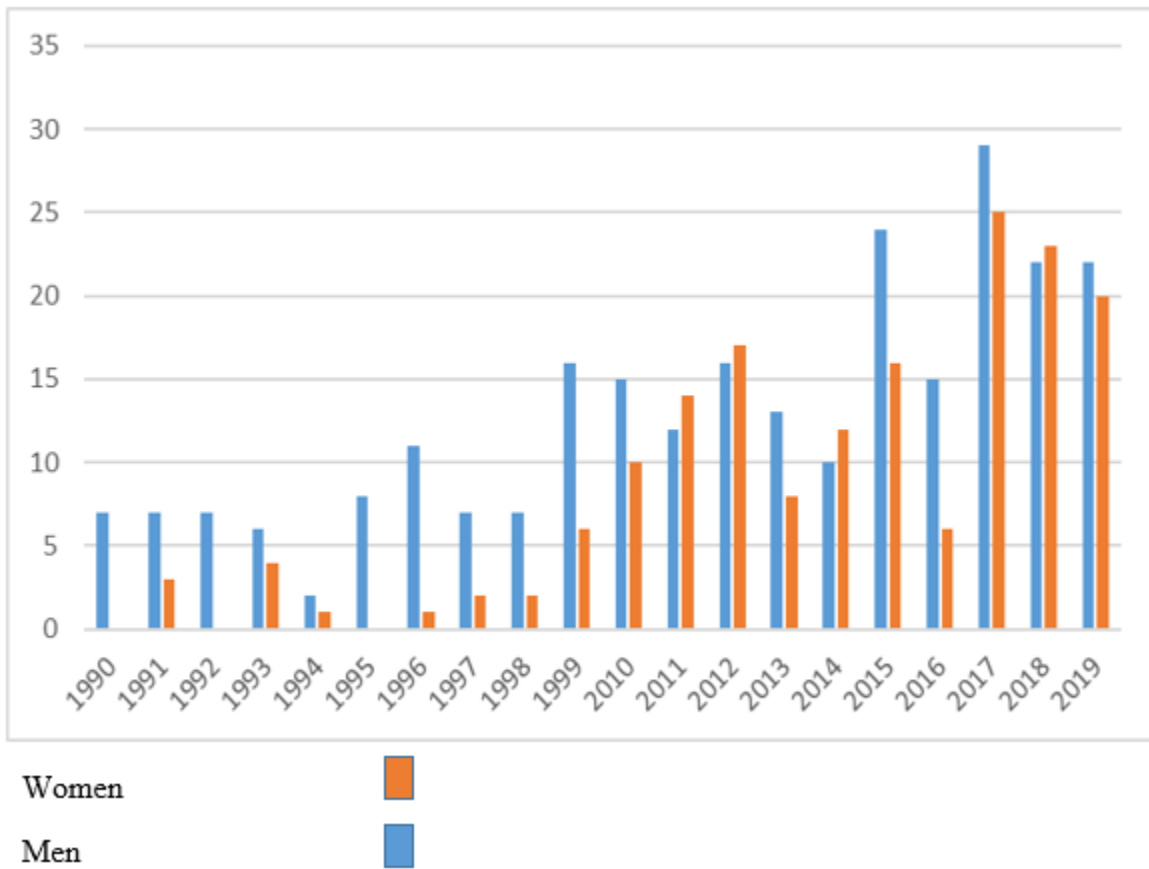


Figure 2: The change in gender by years

	Women Frequency (Percent)	Men Frequency (Percent)	P
1990-1999	78 (30,5)	19 (11,2)	P <0,001
2010-2019	178 (69,5)	151 (88,8)	P <0,001

Table 2: Comparison of gender distribution between two decades

Interesting results are related to the duration of inpatient treatment of patients with vascular dementia (Table 3, 4)

		N	Mean	Std. Deviation	P
Hospital treatment days	1990-1999	97	110.48	141.83	0.689
	2010-2019	329	83.66	205.93	

Table 3: Comparison of treatment days in hospital between 1990-1999 and 2010-2019

Year	Hospital treatment days					P 0,484
	N	Mean	Std. Deviation	95% Confidence Interval for Mean		
				Lower Bound	Upper Bound	
2010	25	64.76	149.53	3.04	126.48	
2011	26	57.58	84.94	23.27	91.89	
2012	33	121.88	409.00	-23.14	266.90	
2013	21	81.43	102.79	34.64	128.22	
2014	22	179.95	461.74	-24.77	384.68	
2015	40	56.00	101.28	23.61	88.39	
2016	21	34.90	38.16	17.54	52.27	
2017	54	78.61	113.94	47.51	109.71	
2018	45	83.56	110.95	50.22	116.89	
2019	42	89.02	166.00	37.29	140.75	

Table 4: Comparison of treatment days between 2010-2019

In our retrospective study, we observed that one of the reasons for patients to go to the hospital is suicidal ideation and suicide attempt. Thus, during 2015-2019 suicidal ideation and attempt were observed in 5.8% of patients, and the incidence rate increased every year (Figure 3).

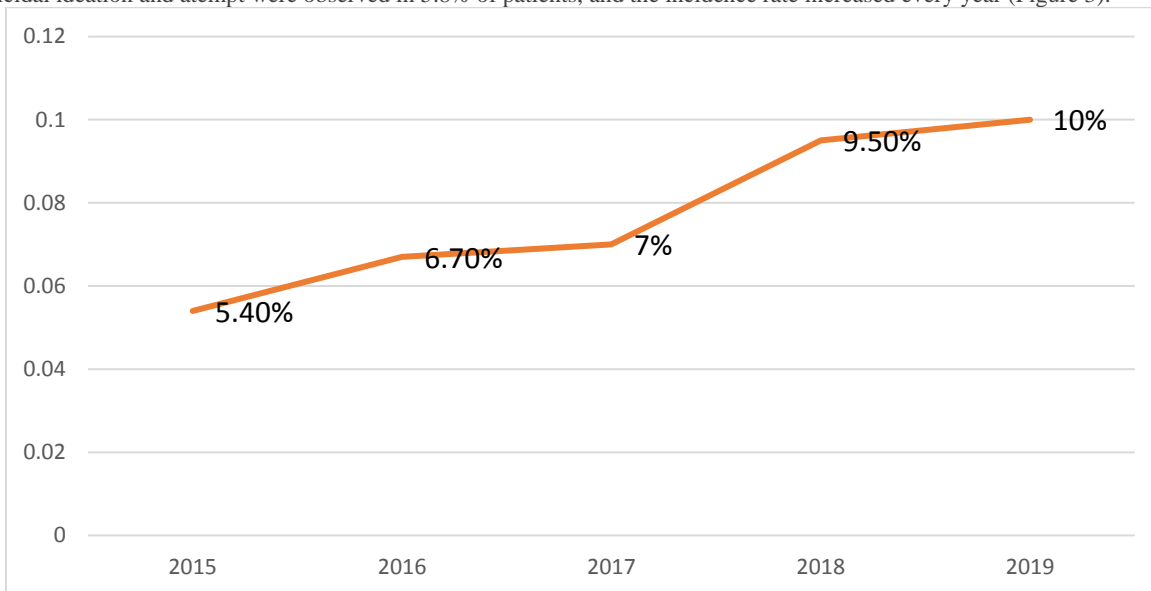


Figure 3: Suicidal ideation and attempt in the history of inpatients diagnosed with vascular dementia (as a percentage).

Conclusion

1. The number of hospitalized patients with vascular dementia has increased over the past 10 years, which means both an increase in the incidence of the disease and an increase in symptoms requiring psychiatric treatment.
2. Pathomorphosis has also manifested itself in sex. Thus, the number of female patients has increased in the last 10 years.

3. In 2010-2019, there was a decrease in the number of days of hospitalization of patients.
4. As a result of the disease, there is a positive trend, a decrease in mortality.
5. The number of patients with suicidal ideation or attempt is increasing among patients with vascular dementia.

The study of the pathomorphosis of vascular dementia makes significant adjustments to the criteria for diagnosis and nosography. Therefore, further study of this problem remains an extremely important and urgent problem.

Limitations

This study has some limitations. This study was not intended to assess regional differences. Despite the obvious limitation of this study due to the small number of samples, we can argue that it shows promising data. On the usefulness of the study the pathomorphosis of vascular dementia in multicenter countries in other countries. The study of the pathomorphosis of mental disorders makes significant adjustments to the criteria for diagnosis and nosography. Dementia, which has been called a pandemic since the middle of the last century and which is one of the biggest problems in an aging society, has also undergone pathomorphosis over the years.

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