# Stroke registry in Volos hospital.

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## Introduction

This study outlines the recording and classification of stroke which were encountered at the general hospital of Volos (Greece) [1-3] from January 2017 to December 2017 (12 months period) and the analysis of the causes. The hospital based study was retrospective and is clinical epidemiological (non-invasive) [4-6]. The diagnosis of follow-up and investigation of the incidents was done in accordance with the World Health Organization's diagnostic and investigation criteria, guidelines ESO4, AHA/ASA [7,8]. We studied all patient dossiers (adults>16 years) who were hospitalized in Volos from 01/01/2017 to 31/12/2017 with a picture compatible with a first-ever-in-a-lifetime stroke. The calculation of average values and standard deviations was made using Microsoft Office Excel software [9-11].

## Description

Overall n=410 cases of first-ever-in-a-lifetime stroke were recorded, of which 321 (78.29%) were patients with ischemic and 89 (21.70%) with hemorrhagic stroke such as intracerebral hemorrhage 70 (17.07%) and subarachnoid hemorrhage 19 (4.63%). The sample consists of 216 men (52.68%) and 194 women (47.2%) [12]. The mean age of the patients was 75.63 years (min 24-max 101 SD: 13.23), while for both the leaves were 73.55 (SD: 13.27) for men and 77.96 (SD: 12.83) for women. The frequency of ischemic stroke among men and women appears to be almost the same (49.53 and 50.47 respectively), while the same for hemorrhagic stroke that occurs most frequently in men n=57 (64%) compared with women n=32 (37%) [13]. The median duration of hospitalization for all stroke patient is 6,891 (SD: 6.2) with ischemic stroke 6,20 (SD: 5.97) and with hemorrhagic stroke 9,34 (SD: 6.23) days. A pathogenic investigation with the criteria of the toast study revealed: Large artery atherosclerosis n=66 (20.56%), small-vessel occlusion n=54 (16.82%), cardioembolism n=102 (31.77%) and other undetermined etiology stroke n=99 (30.84%). The most common group of patients with stroke according to the classification of toast are cardioembolic and undetermined etiology infarcts [14]. At the first place for development of cardiovascular disease from the modifiable risk factors is arterial hypertension (60%), then diabetes (23.4%) and on the third place is atrial fibrillation (22,9%). The overall 28-day case fatality rate was n=48 (11.70%), male n=27 (56.25%) to women n=21 (43.75%).

There were cases of deaths with ischemic stroke n=21 (6.54%), with hemorrhagic stroke n=26 (37.14%) and n=1 (5.26%) with subarachnoid hemorrhage [15]. In the frequency ranking of the different types of stroke, we recorded a high rate of intracerebral hemorrhage (17%) according to World Health Organization (WHO) data [16]. In the toast classification, according to our own data, the two most common types of stroke are cardioembolic (31.7%) and undetermined etiology (30.8%), as shown by the previous studies [17].

## Conclusion

We must focus on the standards of care for patients with stroke and the need for scientific research in Europe, particularly in Greece, due to the economic crisis that has hit the country. According to the results of the recent epidemiological study of stroke, which took place in Evros, one of the highest rates of incidence in southern Europe was recorded. Increased incidence of stroke has been observed in recent years in low-and middle-income countries such as Greece. Also there are other previous population surveys conducted in different regions of Greece, the Peloponnese (Arcadia) and the Eastern Aegean (Lesvos) with different social and economic conditions. The epidemiological study of stroke incidence at the general hospital of Volos (Magnesia) leads to better understanding, prevention and treatment strategy in Greece.

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2