

Experience Of The Neurology Department At The Ehu Of Oran (2015-2021)

Badsı.D¹ ; Djaafri. F², Nekrouf .S³, Smahi.I⁴, Belakhdar.T⁵

*Medical Neurology Department.
University Hospital Establishment Of Oran Algeria.*

Abstract:

Strokes are defined by the occurrence of hemorrhage in the cerebral parenchyma apart from any vascular malformation, parenchymal abnormality or any coagulation disease that could explain the bleeding.

It is a less frequent neurovascular emergency than in cerebral infarction but more serious cerebral imaging (CT and MRI) has improved the diagnostic and therapeutic management of hemorrhagic strokes, and consequently the prognosis of patients by minimizing sequelae and transfer to intensive care units. Descriptive study with retrospective collection of clinical data over a period of seven years from February 2015 to December 2021.

The results: Our study focused on 448 records of patients diagnosed with hemorrhagic stroke on clinical and neuroradiological parameters.

The population is on average 63 years old, the sex ratio is M/F: 1.4

Place of residence: 75% are from the wilaya of Oran.

State of consciousness on admission: 83% normal consciousness and 13% obnubilation.

Hypertension is the most common risk factor in hemorrhagic stroke, where it represents 40% in our study.

44% of our patients stay less than 07 days during their hospitalization, and more than 2/3 evolve favorably without or with partial sequelae during the 03 months following their admission (RANKINE 0/1/2).

Conclusion : Since 2015, the medical neurology department has been providing care for patients with hemorrhagic stroke in the wilaya of Oran. The brain scan was the first-line examination requested in all patients after clinical examinations. The management of stroke is multidisciplinary. Hemorrhagic stroke is a public health problem and rapid, effective and adequate care in collaboration with intensive care and neurosurgery services remains necessary to minimize sequelae and reduce mortality.

Key Words: *Stroke, hemorrhagic, mortality, NIHSS*

Date of Submission: 04-02-2024

Date of Acceptance: 14-02-2024

I. INTRODUCTION:

Strokes are defined by the occurrence of hemorrhage in the cerebral parenchyma apart from any vascular malformation, parenchymal abnormality or any coagulation disease that could explain the bleeding[1].

It is a less frequent neurovascular emergency than in cerebral infarction but more serious cerebral imaging (CT and MRI) has improved the diagnostic and therapeutic management of hemorrhagic strokes, and consequently the prognosis of patients by minimizing sequelae and transfer to intensive care units [2].

The mortality from AVCH is very high requires a trained medical and paramedical team, and a neurovascular unit close to an intensive care unit. This study is carried out at the EHUO neurology department, which is dedicated to a team of doctors (assistants, residents and general practitioners) and nurses trained in the management of AVCH since 2015.

II. MATERIALS AND METHOD:

Descriptive study with retrospective collection of clinical data over a period of seven years from February 2015 to December 2021.

Study population:

The study focused on the files of patients who had been hospitalized for hemorrhagic stroke in the neurology department of EHU ORAN, the data was collected on an individual support (survey form).

The aim of our study is to describe the clinical, epidemiological and evolutionally profile of patients with hemorrhagic stroke .

Inclusion criteria:

All patients hospitalized for a hemorrhagic stroke with cerebral imaging showing: hyperdensity (CT) or hypersignal (T2 FLAIR) or hyposignal (T2*) in the cerebral parenchyma.

Exclusion criteria:

Patients with hemorrhagic stroke of traumatic origin.
Patients with cerebral venous thrombosis complicated by cerebral hematoma.

Data analysis:

Data were entered and analyzed using SPSS 20 software.

The positive diagnosis is made by a scanner without injection which can be supplemented by an MRI if it is negative in the context of eliminating a deferential diagnosis.

III.RESULTS:

Our study focused on 448 records of patients diagnosed with hemorrhagic stroke on clinical and neuroradiological parameters.

A. DEMOGRAPHIC PROFILE:

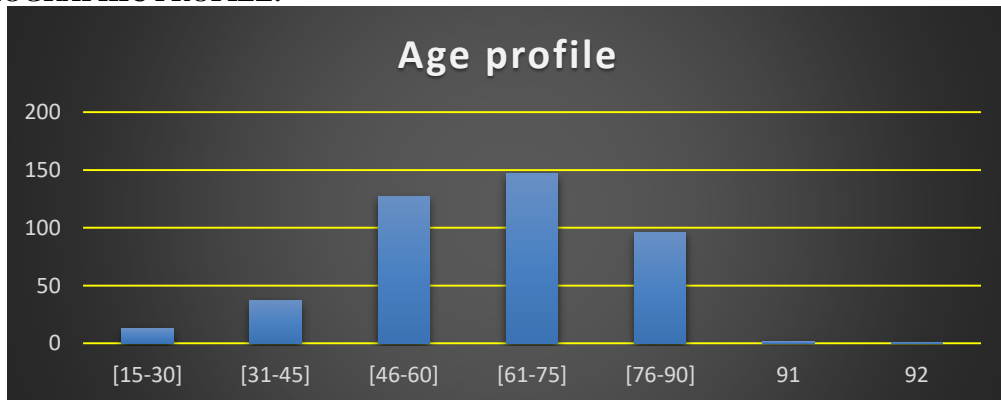


Figure1: AGE: The population is on average 63 years old [min 15 max 100]

Figure 2: SEX: the sex ratio is M/F: 1.4

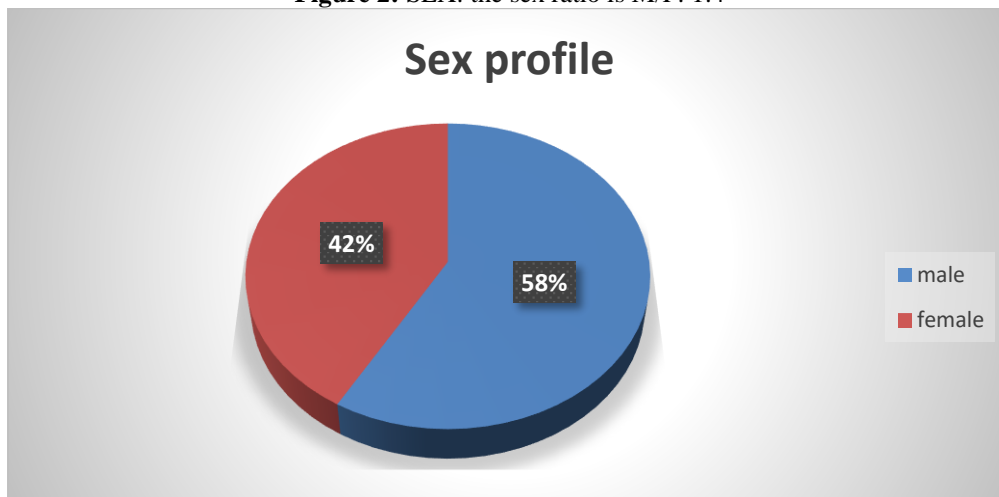


Figure 3. Place of residence: 75% are from the willaya of Oran

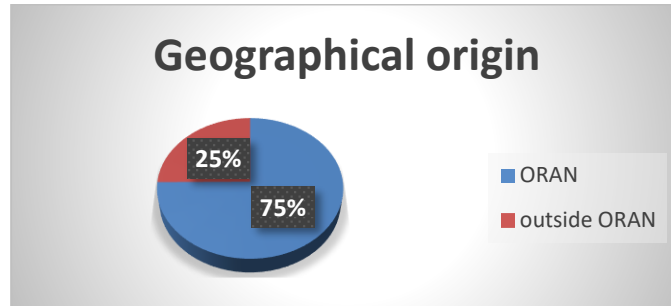


Figure 4: Geographical origin of patients.

B. CLINICAL PROFILE:

Figure 5: State of consciousness on admission:

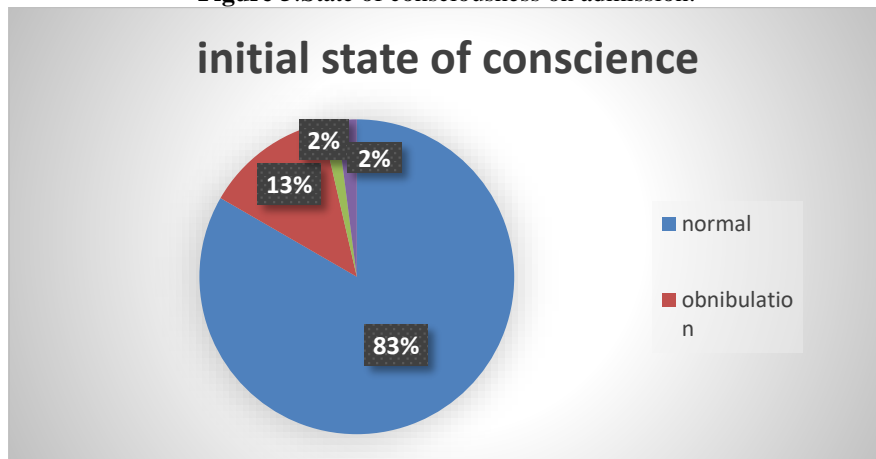


Figure 6: Clinical signs:

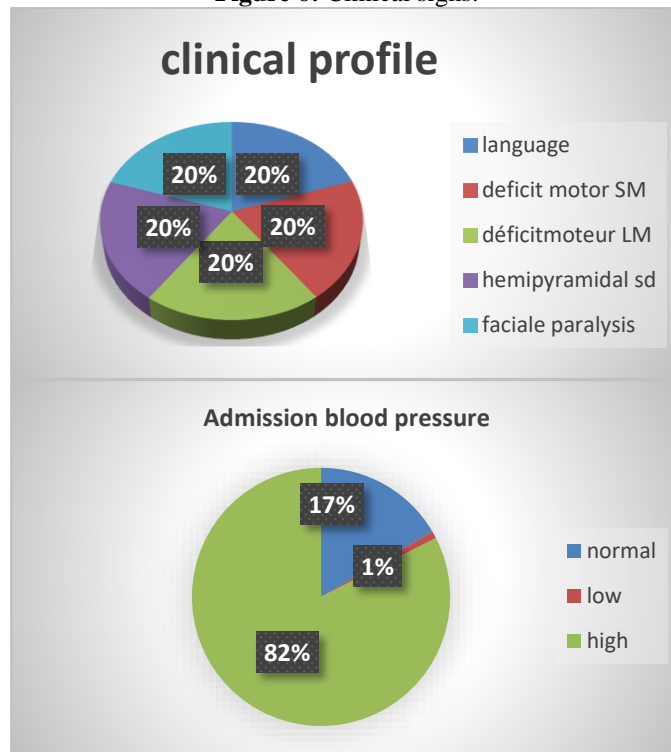


Figure 7 : Blood pressure admission.

Hypertension is the most common risk factor in hemorragic stroke, where it represents 40% in our study.

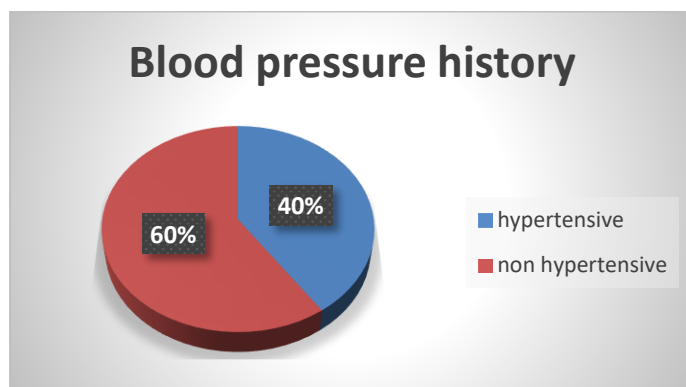


Figure 8 : History and risk factors

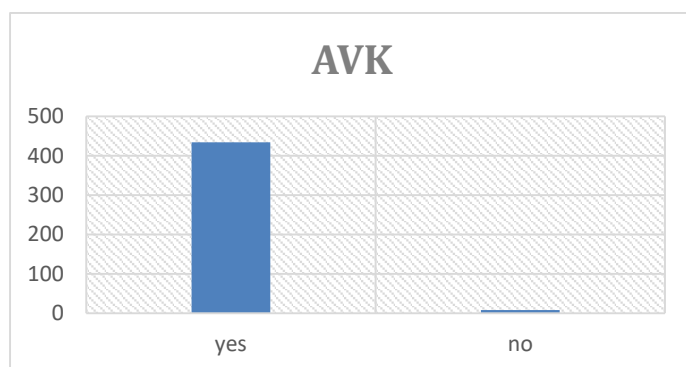


Figure 9 :Taking anticoagulants

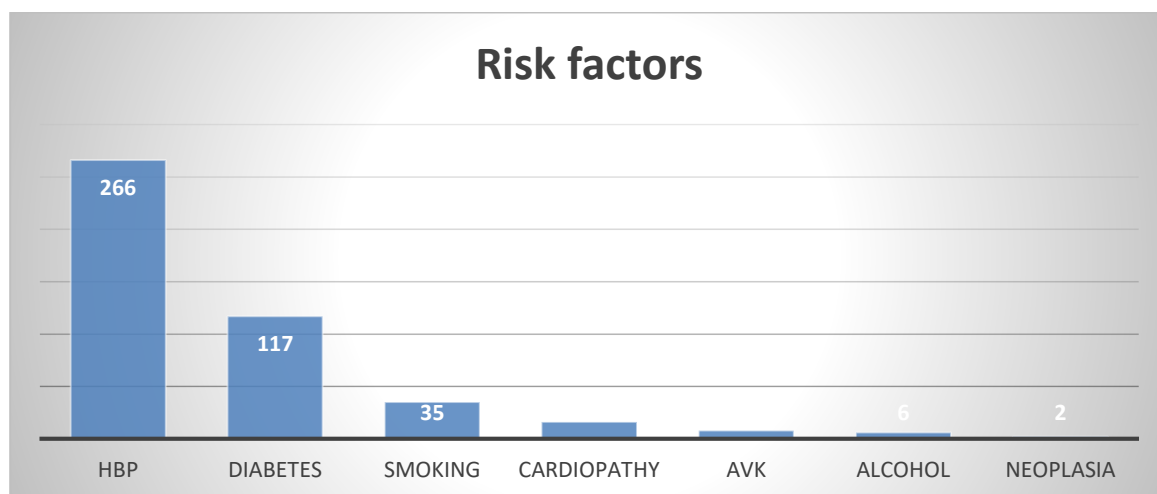


Figure 10 :Risk factors

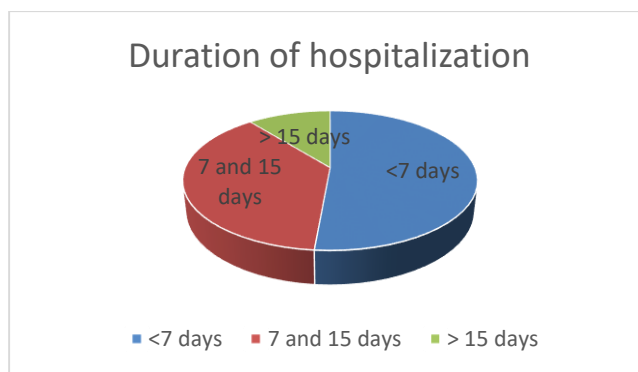


Figure 11 :Duration of hospitalization

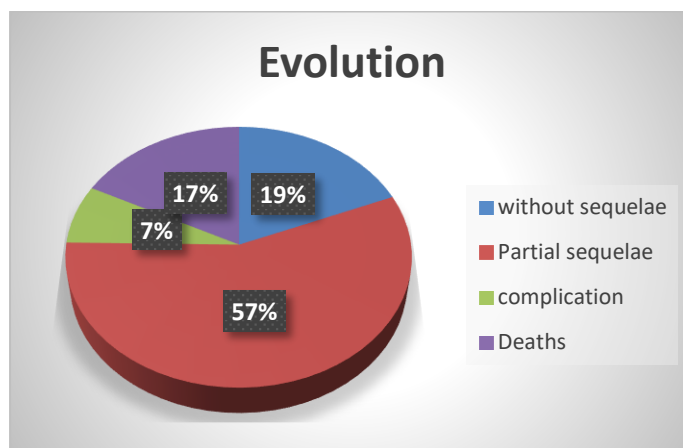


Figure 12 : Evolution of patients.

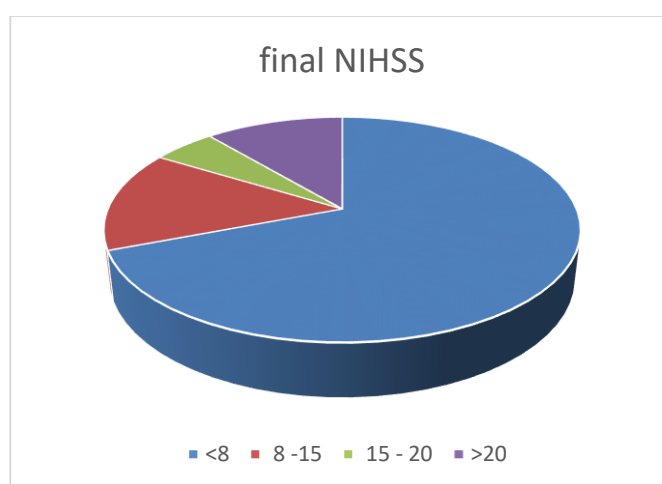


Figure 13 :NIHSS of patients

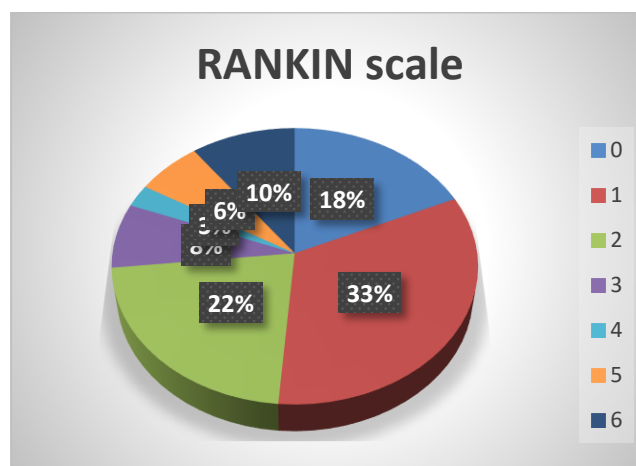


Figure 14 :The Rankin Scale of patients.

44% of our patients stay less than 07 days during their hospitalization, and more than 2/3 evolve favorably without or with partial sequelae during the 03 months following their admission (RANKINE 0/1/2).

IV. DISCUSSION:

Our population has a demographic profile similar to that reported in the literature:

Average age = 63 years (our observation) versus 60 years Tlemcen 2017, 62.5 years in France, 53 years in Niger and 72 years in DIJON[3].

Sex ratio: 1.4 Male predominance similar to all national and international studies except the Reunion study which did not find a superiority between the 02 sexes[2].

In view of our 24/7 on-call activity, our service is on regional vacation and receives patients from other willayas of around 25% of the total number of admissions versus 75% from Oran for such a serious pathology[1].

The risk of hemorrhagic stroke increases with age until age 60 and gradually decreases thereafter. Hemorrhagic strokes do not spare the young subject (15-45 years old).

Patients in a clinical picture of altered state of consciousness were referred directly to the nearby intensive care unit, while Our neurology department generally received those whose state of consciousness was good or slightly altered (83%).

The clinical picture is also identical to that described in the literature a motor deficit with an initial peak in BP.

HTA is the main risk factor for hemorrhagic stroke described in the literature and found in (40%) of our study population, compared to 46% in Tlemcen; 66.7% in France and 73.5% in Marrakech (Morocco)[4,5]

The second risk factor found in our study is diabetes with a frequency of 26% followed by active tobacco 07%, heart disease 3% and alcohol and AVK by 01% and neoplasia 0.44%.

86% of the hematomas are deep which is consistent with the hypertension profile of the population studied against 10% cortical.

Study bias: We limited ourselves to just file data and the small size of the sample.

The duration of hospitalization is in 51% of cases 07 days with a discharge NIHSS <8 of 69% of patients admitted to our service.

The mortality in our observation is 17%, it is close to that described in the literature (between 10 and 12%), and really far from that described in some African countries 42% in Dakar 2017[6,7,8].

V.CONCLUSION:

Since 2015, the medical neurology department has been providing care for patients with hemorrhagic stroke in the wilaya of Oran(1). The brain scan was the first-line examination requested in all patients after clinical examinations[2].The management of stroke is multidisciplinary.Hemorrhagic stroke is a public health problem and rapid, effective and adequate care in collaboration with intensive care and neurosurgery services remains necessary to minimize sequelae and reduce mortality.Screening and effective treatment of high blood pressure, the main risk factor for hemorrhagic strokes, as well as the fight against other vascular risk factors.Prevention is based on a healthy lifestyle (smoking cessation, regular physical activity and dietary measures)[5,6].

Although our neurology department is regionally oriented, this retrospective descriptive study on file is not exhaustive and needs to be completed by a larger-scale study involving neurosurgery departments. Particular attention should be paid to risk factors with the contribution of etiological imaging.

References :

- [1]. Clinical, Radiological And Progressive Profile Of Cerebrovascular Accidents At The Ehuo Neurovascular Unit, Badsı Douniazed 17 September 2017.
- [2]. Cerebral Vascular Accidents: F. Hammouni-Service Des Umc Chu Mustapha.
- [3]. Retrospective Study Of Hemorrhagic Strokes Neurology Department – Tlemcen University Hospital – From January 1, 2015 To December 31, 2017.
- [4]. Thesis Of Doctor Of Medicine: Management Of Strokes (2012-2013) (Dr. Ahmed Aida M'hammed – Dr Bouhmama Ibtisem-Dr Oueled Ahmed Sidi Mayla Ahmed Baba). Faculty Of Medicine Tlemcen.
- [5]. Management Of Stroke In Intensive Care: Thomas Geeraerts Pôle D'anesthésie Réanimation, Reception Team "Modelling Tissue And Nociceptive Aggression" Paul Sabatier University, University Hospital Of Toulouse, Chu Purpan, Place Du Dr Baylac, 31059 Toulouse Cedex 9. E-Mail Geeraerts.T@Chu-Toulouse.Fr.
- [6]. Epidemioclinical, Evolutionary And Computed Tomography Aspects Of Hemorrhagic Cerebrovascular Accidents: 34 Cases (Review Of Anesthesia-Resuscitation And Emergency Medicine).
- [7]. Epidemiology Of Stroke On Reunion Island Consulting In A Hospital Center; Dumas-03937029 <https://Dumas.Ccsd.Cnrs.Fr/Dumas-03937029>; Yellow 2023.
- [8]. Epidemiology Of Hemorrhagic Stroke In Patients Hospitalized At The Neurological Clinic Of Fann University Hospital (Dakar).