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General Profile Of Patients In The Psychogeriatric Consultation Of The Specialized Psychiatric Hospital In Algiers: Results Of A Stud

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Abstract:
Background: *Psychogeriatric disorders contribute to the loss of independence in our elderly population. It is valuable to gain an in-depth understanding of the characteristics of the elderly population experiencing these disorders to improve screening, management, and anticipate follow-up. The objective of our study was to determine the sociodemographic and clinical characteristics of elderly individuals attending the psychogeriatric consultation in Algiers.*
Materials and Methods: *This was an observational, descriptive study involving 202 consultants aged of 65 years old and over. . Diagnoses were established according to the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Recruitment took place over a 24-month period, from June 2021 to June 2023, at the outpatient psychogeriatric clinic of the specialized psychiatric hospital DRID Hocine in Kouba, Algiers, Algeria. The measured variables included sociodemographic, clinical, and recommended therapeutic aspects. Cognitive assessment was conducted by using the Mini-Mental State Examination, and a general geriatric evaluation, comprising the Charlson Comorbidity Index and the measurement of autonomy levels for activities of daily living (ADL).*
Results: *A total, of 202 patients were included in the study, with an average age of 74.7 ± 11.5 years and an equal gender ratio of 1. More than half were married, and nearly all (91.1%) lived with their spouse or child. The majority of the participants were referred to the psychogeriatric consultation by a psychiatrist or neurologist. Over a third had a Charlson score equal to or greater than 6. The most common reasons for consultation were psycho-behavioral and delusional disorders. Among the diagnosed conditions, dementia-related disorders were prevalent, accounting for a significant proportion of 55.3% (n=112), and 14.5% (n=29) were identified with mild cognitive impairment (MCI). Within the dementia category, Alzheimer's dementia accounted for 29.5% (n=60), and mixed dementias for 23.8% (n=48). Delirium, visual hallucinations, and identification disorders were significantly associated with Alzheimer's and related dementias (P=0.000). Combined medication prescriptions were observed in 33.6% (n=84) of cases. In monotherapy, anticholinesterases were prescribed in 10.9% (n=22) of cases antipsychotics in 14.4% (n=29), and antidepressant in 22.3% (n=45) of cases.*
Conclusion: *Patient swho access the psychogeriatric consultation are individuals in their seventies, experiencing symptoms falling into one of the three categories of psychogeriatric disorders, namely, dementia-related disorders, mood disorders, and late-onset Schizophrenic disorders. These findings may aid in tailoring the care provided by a future geropsychiatry hospitalization unit.*
Key Word: *elderly individuals – consultation - psychogeriatrics - psycho-behavioral disorders*

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I. Introduction

According to the World Health Organization (WHO), psychogeriatrics is considered a discipline that aims to detect, treat, evaluate, and manage all types of psychiatric pathologies in the elderly, including organic disorders and their consequences [1]. The elderly patient population to be addressed is divided into three groups: those who have suffered from mental disorders throughout their lives, those with late-onset mental disorders, and those suffering from neurodegenerative or neurovascular brain conditions [2-3]. Studies in Western countries (Europe, the United States) tend to confirm that the most common psychiatric disorders in the elderly are depression and anxiety disorders [3-5]. Although their prevalence varies in studies, likely depending on population characteristics such as physical health, dementia, marital status, age, or gender, these disorders are considered a public health issue [3-4, 6]. According to who reports, it is estimated that 20% of individuals over 60 years old suffer from mental and neurological disorders [1], including dementia-related disorders, depressive disorders,

anxiety disorders, substance abuse issues, and suicide [5]. These disorders contribute to the loss of independence among the elderly. However, maintaining autonomy is a major public health challenge [4, 6]. Therefore, it is valuable to have an in-depth understanding of the characteristics of the elderly population experiencing psychogeriatric disorders to **improve** screening, management, and anticipate follow-up. The objective of our study was to identify the sociodemographic and clinical characteristics of elderly individuals attending the psychogeriatric consultation at an Algerian psychiatric hospital.

II. Material And Methods

This was an observational, descriptive study of 202 consultants aged of 65 years old and over. Diagnoses were established according to the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) [7]. Recruitment took place over a 24-month period, from June 2021 to June 2023, at the outpatient psychogeriatric clinic of the specialized psychiatric hospital DRID Hocine in Kouba, Algiers, Algeria. The clinic comprises two to three psychiatrists, a neuropsychologist, and a nurse. During consultations, patients undergo an interview, a clinical examination, psychometric tests, and a biological assessment. Imaging studies are also requested or conducted beforehand. Subjects under 65 years old were excluded from the study. Patients or their legal guardians were informed in advance about the study's purpose, the assurance of anonymity, and data confidentiality to obtain their informed consent for participation. The measured variables were categorized into four characteristics:

- Sociodemographic data, including age, gender, marital status, lifestyle, and the presence of a caregiver. Clinical data, including personal medical and psychiatric history, referral to the psychogeriatric consultation, reasons for consultation, and the diagnosed condition.
- Paraclinical and radiological assessments and neuropsychological tests, including the Mini-Mental State Examination (MMSE) [8], general geriatric evaluation, including the Charlson comorbidity index (calculated based on age) [9], and the measurement of autonomy levels in activities of daily living (ADL) [10].
- Recommended therapeutic interventions

Statistical analysis

All data collected on the pre- established questionnaire were entered into the SPSS software version 26. Qualitative variables were expressed as percentages or counts, while quantitative variables were presented as means, standard deviations, and ranges. Pearson's chi-square test was employed for the comparison of qualitative variables. The comparison between a qualitative and a quantitative variable was conducted by using the Student's T-test. The significance level was set at 5% ($p \leq 0.05$).

III. Result

Sociodemographic characteristics:

Age and gender of patients :

Among the 202 included patients, the average age was 74.7 ± 11.5 years, with a maximum age of 104 years. There were an equal number of women and men, with a sex ratio of 1. Men had an average age of 75.3 ± 11 years, while women had an average age of 74.1 ± 12 years (Figure n°1).

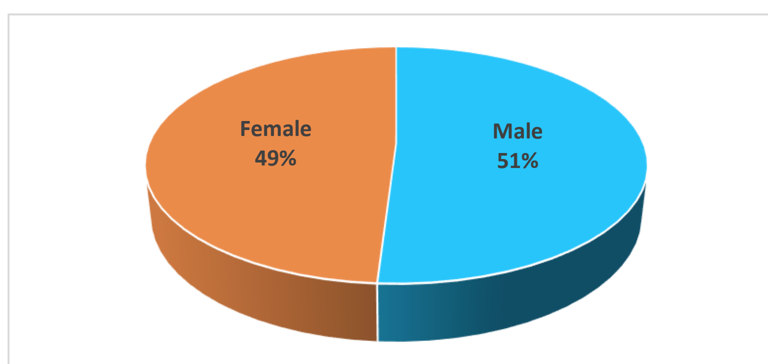

Figure n°1: Distribution of 202 consultants by gender

Marital status :

Among the participants, 110 (54.5%) were married, 55 (27.2%) were widowed, 20 (9.9%) were divorced, and 17 (8.4%) were single (Figure n°2).

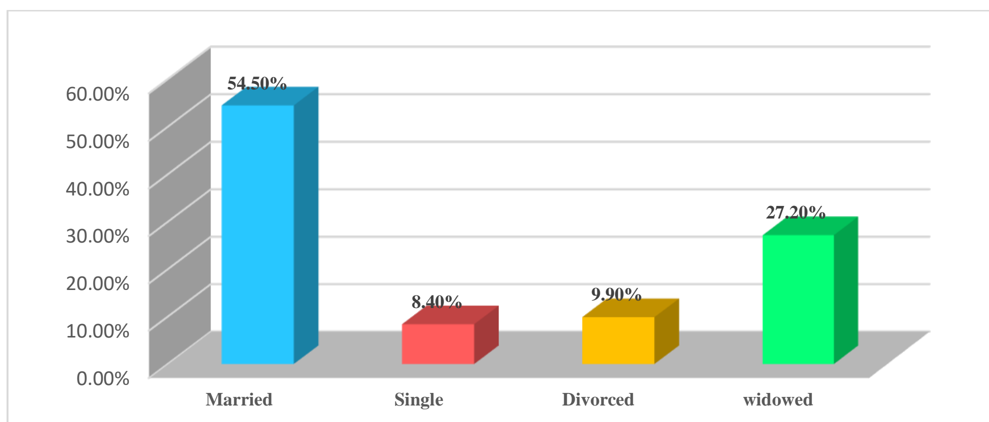

Figure n° 2: Distribution of 202 consultants by marital status

Lifestyle :

One hundred and eighty patients (91.1%) lived with their spouse or child, while eighteen patients (8.9%) lived in elderly care homes. Additionally, out of the 202 patients, one hundred and eighty-nine (93.6%) received assistance from their children, and thirteen (6.4%) had no assistance. It is noteworthy that none of the 202 patients (0%) were under legal protection.

Correspondents :

Accompaniment to the consultation: 86.6% (n=175) of patients consulted in the presence of a family member, while 13.4% (n=27) were accompanied by a third person.

Referral to the consultation: Nearly half (n=99; 49%) of the consultants were referred to the psychogeriatric consultation by a psychiatrist, 42 patients (20.8%) by a neurologist, and 43 (21.3%) by other referrers (specialists, family members, nurses). General practitioners were in the minority at 8.9% (n=18) (Figure n° 3).

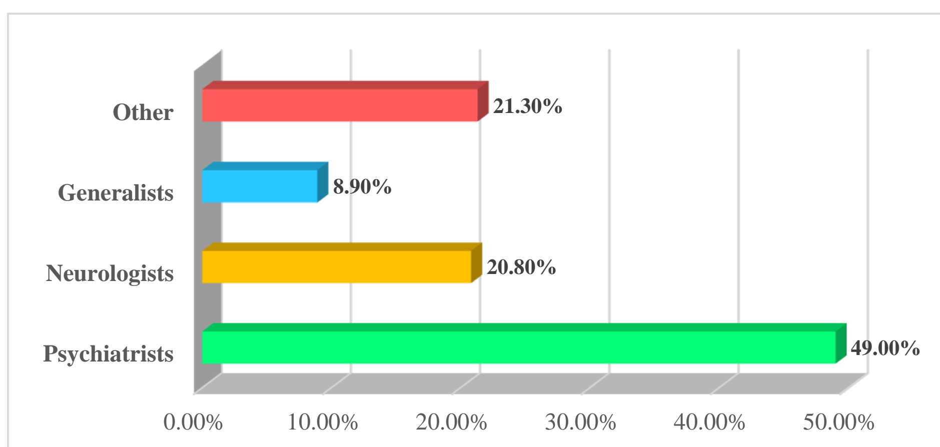

Figure n° 3: Distribution of 202 consultants according to the addresses of the psychogeriatric consultation

Clinical characteristics (Table n°2):

Personal history :

Nearly one-third of the consultants had multiple comorbidities. In our series, 43.1% (n=87) had a history of cardiovascular risk factors (hypertension, diabetes, heart disease, dyslipidaemia, tobacco, and alcohol) (Table n°1). Only 10% had psychiatric antecedents.

Table n°1: Distribution of 202 consultants by medical and psychiatric history

	Workforce	Percentage
Diabetes	12	5,9%
High blood pressure	23	11,4%
Heart disease	7	3,5%
Parkinson's disease	10	4,9%

Stroke	12	5,9%
Psychiatric illness	20	10%
Associations (hypertension + diabetes + others)	27	13,4%
Others (dyslipidaemia, alcohol, tobacco)	18	8,9%
No defects	73	36,1%
Total	**202**	**100,0%**

The Charlson comorbidity score, reflecting the comorbid state of our population, was calculated for each patient. Fifty-one consultants (25.24%) had a Charlson score equal to or greater than 6. It's worth noting that one-third (n=72; 36.14%) of the consultants had no comorbidities.

Reason for consultation :

Most patients consulted for psycho-behavioral disorders (n=43; 21.3%) across all etiologies, and their intensity was judged to be between moderate to severe in more than half (54.5%) of cases, with complaints of memory issues and sleep disturbances (n=136; 67.2%) (Fig. n°4).

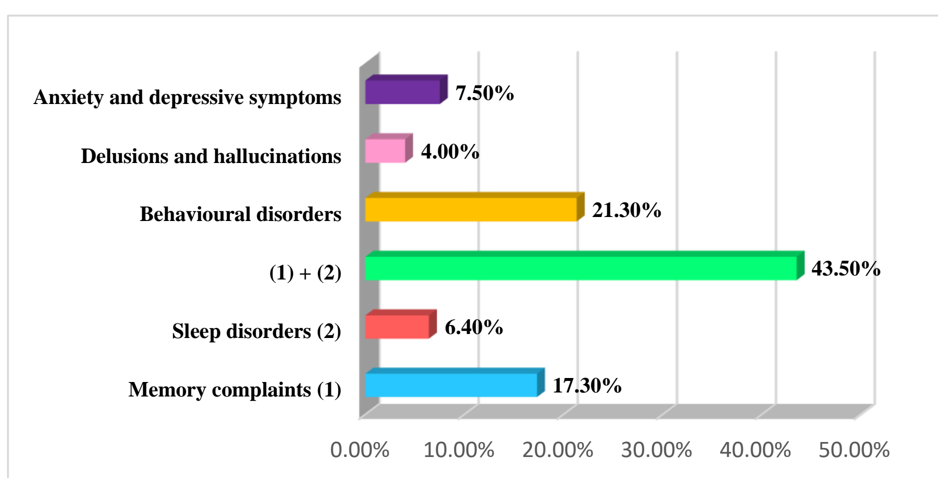

Figure n° 4: Distribution of 202 consultants by reason for consultation

There was no significant difference between men and women (p=0.109) regarding the reason for consultation. In our series, delirium was present in one hundred and five consultants (52%). The predominant theme was persecution in 28.3% (n=77) of cases, followed by thematic associations (persecution, harm, and theft) in 14.4% (n=29). Other delusional themes were present, including hypochondriacal delusions in 3% (n=6) of consultants, grandiosity delusions in 2.5% (n=5), Cotard syndrome (negation of organs) in 2.5% (n=5), and jealousy delusions in 1.5% (n=3). Regarding identification disorders, they were present in almost a third of consultants (n=59; 29.2%), with the predominance of false recognitions (n=35; 17.3%) and self-recognition disorders (n=11; 5.4%). As for hallucinations, they were present in eighty-three consultants (41.1%). Visual hallucinations accounted for 19.8% (n=40), auditory hallucinations for 5% (n=10), and tactile hallucinations for 1.5% (n=3). Associations between auditory and visual hallucinations were observed in approximately 14.9% (n=30) of cases. It is noteworthy that hallucinations, delusions, and identification disorders were significantly associated with the diagnosis of dementia, particularly Alzheimer's dementia and mixed dementia (P=0.000).

Explorations

Standard biological assessment :

6.1% of consultants had carried out standard blood tests. As for brain imaging, more than 80% of the consultants had undergone brain magnetic resonance imaging (MRI). The majority (53.5%) of lesions showed Scheltens grade 2 to 4 hippocampal atrophy.

Standard geriatric assessment :

Assessment of autonomy and dependence**:**

The measure of the level of autonomy for activities of daily living was calculated with the ADL scale. Seventy patients (34.5%) had a maximum score of 6, meaning total autonomy for activities of daily living.

Eighty-three patients (41%) presented partial autonomy with a calculated score between 4 and 5. Forty-two (21%) presented a major loss of autonomy with an ADL between 1 and 3 and seven (3, 5%) patients have a total loss of autonomy with a score of 0.

Cognitive evaluation**:**

Regarding cognitive impairments, the assessment was performed by using the Mini-Mental State Examination (MMSE). The average score for consultants with mild cognitive impairment (MCI), dementia, and related conditions was 18.65±5.4. Cognitive impairment was judged to be from moderate to severe extent. The score was less than 10 in 13.5% (n=19) of cases, indicating severe cognitive impairment. Patients with an MMSE between 10-18 presented moderate to severe cognitive impairments in 24% (n=34) of cases, while those with scores between 19-23 (indicating moderate cognitive impairment) accounted for 22.6% (n=32) of patients. Finally, fifty patients (35.7%) had an MMSE between 24-30, signifying mild cognitive impairments. It is noteworthy that in six cases (4.2%), the MMSE was not feasible, either due to the patient's condition or due to patient opposition.

Diagnostic hypothesis

In our series, among the diagnoses selected, dementia and related disorders were representative in more than half the consultants (n=112; 55.3%), and 14.5% (n=29) of consultants had mild cognitive impairment (MCI) (Figure n°5).

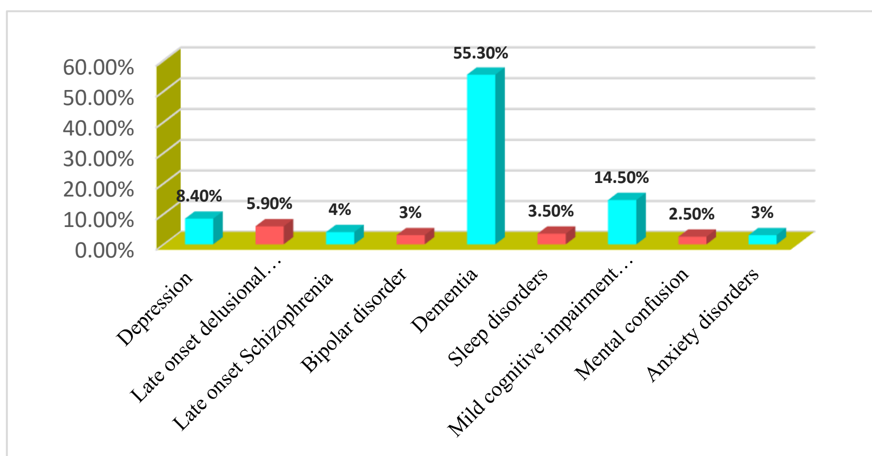

Figure n° 5: Distribution of 202 consultants by the diagnostic hypothesis

In the category of dementia diagnosis, more than half were Alzheimer's dementia (n=60; 29.5%) and mixed dementia (n=48; 23.8%) (Figure n°6).

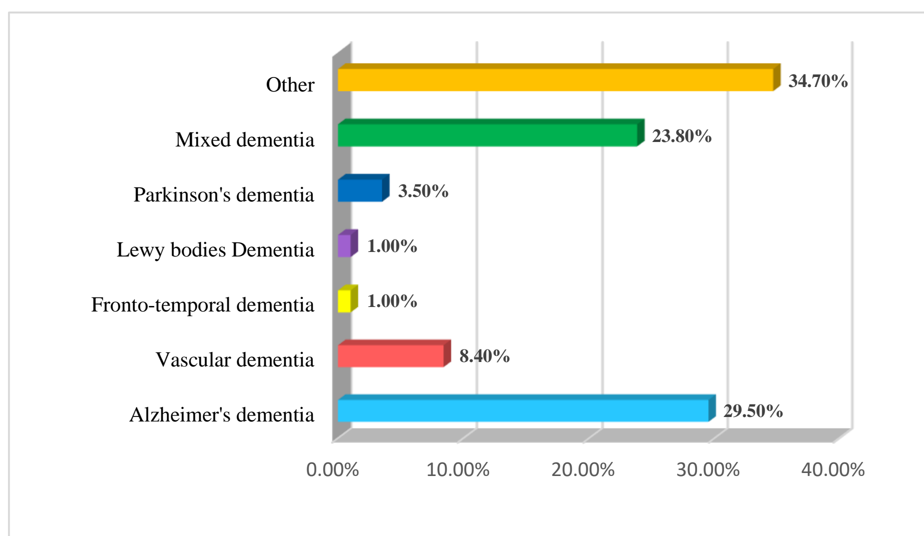

Figure n° 6: Distribution of 202 consultants by different types of dementia

Medical prescription:

Almost all the patients had received therapeutic intervention. This involved associative prescription in 33.6% (n=84) of cases. In monotherapy, Anticholinesterases were prescribed in 10.9% (n=22) of cases, antipsychotics in 14.4% (n=29), and antidepressants in 22.3% (n=45) of cases (Figure n°7).

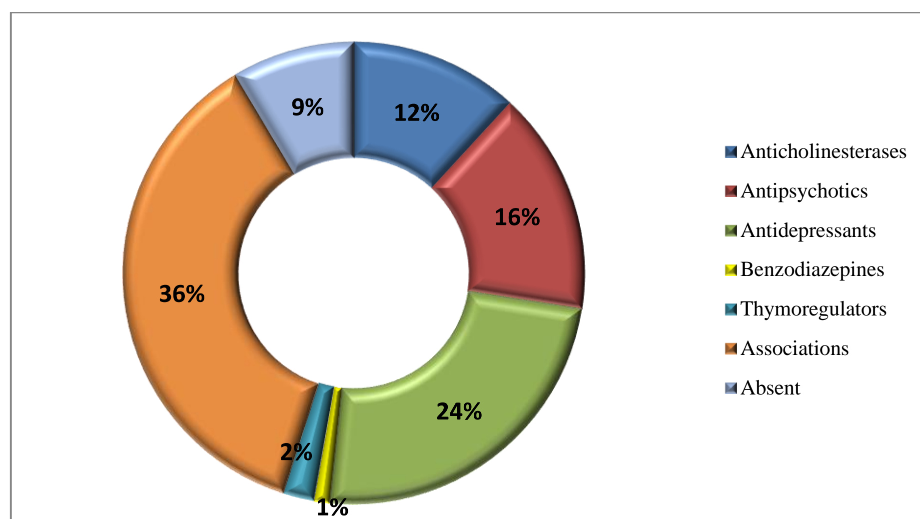

Figure n° 7: Distribution of 202 consultants according to medical prescription

Table n° 2: Distribution of 202 consultants by medical and psychiatric history, diagnostic hypotheses and Medical prescriptions

Medical and psychiatric history		
	Frequency	**Percentage**
Diabetes	12	5,9%
High blood pressure	23	11,4%
Heart disease	7	3,5%
Parkinson's disease	10	4,9%
Stroke	12	5,9%
Psychiatric illness	20	10%
Associations (hypertension + diabetes + others)	27	13,4%
Others (dyslipidaemia, alcohol, tobacco)	18	8,9%
No defects	73	36,1%
Total	202	100,0%
diagnostic hypotheses		
Depression	17	8,4%
Psychotic + delusional disorder	12	5,9%
Schizophrenia is aging	8	4%
Bipolar disorder	6	3%
Dementia	112	55,3%
Sleep disorders	7	3,5%
MCI (TCL)	29	14,5%
Mental confusion	5	2,5%
Anxiety disorders	6	3%
Total	202	100,0
Medical prescriptions		
Anticholinesterases	22	10,9%
Antipsychotics	29	14,4%
Antidepressants	45	22,3%
Benzodiazepines	2	1,0%
Thymoregulators	4	2,0%
Associations	84	33,6%
Absent	16	7,9%
Total	202	100,0%

IV. Discussion

The sociodemographic profile:

Indeed, the patients aged of 65 years old and over, seen in psychogeriatric consultations were women and men, the mean age of our population was 75 years with a maximum of 104 years. This result was in perfect

agreement with studies that follow the who age criteria which define the elderly patient from 60 years and over [1, 4, 11-12]. Regarding the sex of the patients, we found a sex ratio equal to one. This result was unexpected, given the longer life expectancy of women, as literature typically reports a sex ratio of three women to one man [5].

Regarding lifestyle, our study found that 94% of patients were living with their families. In our context, this can be explained by the cultural emphasis on preserving the elderly in their familial environment. The majority of Algiers-based consulters had family caregivers, which may explain the low prevalence of depression in our series. Access to psychogeriatric consultations was facilitated by the presence of a caregiver around the patient. This figure does not align with literature, notably the European study by Andreas and colleagues, which found 53% of individuals over 75 years living alone [5]. It is noteworthy that our consulters are predominantly dependent and poly-pathological, with cardiovascular and psychiatric risk factors. The significant proportion of cardiovascular risk factors in our series was 63.9%. In this regard, the Charlson score in our consulters indicated a population with numerous comorbidities. Comparing with other studies, it appears that patients with psychogeriatric disorders tend to have more comorbidities.

This association seems to have a bidirectional link, with some authors suggesting a probable mutual reinforcement between psychogeriatric disorders and comorbidities [13-14]. The most prevalent comorbidity was hypertension (24.8%), aligning with figures reported in some literature studies (60%) [13-14]. The role of hypertension in the cognitive decline of the elderly and in dementia is well-established. Hypertension is the most potent modifiable risk factor for stroke, multiplying the risk by four. Thus, there is a connection between hypertension and cognitive dysfunction, especially when hypertension is untreated. As for psychiatric history, diagnoses of schizophrenia, bipolar disorder, and anxiety disorders were underrepresented, at only 10%. This figure appears inconsistent with literature data, which often hovers around 40% for psychiatric history [15-16]. Nevertheless, according to research findings, the presence of psychiatric history is associated with an increased risk of dementia [17-19]. Finally, psychiatric history can be a risk factor for a new episode and psychobehavioral disorders [4-11-20]. Regarding the autonomy of our elderly, it is mostly preserved in just over a third of cases for activities of daily living (ADL), with 34.5% having maximal ADL (total autonomy) and 41% having ADL for partial autonomy; the remaining consultants exhibited dependence for instrumental activities. Dependency issues are likely to lead to the development of depression, as demonstrated by some studies [21-22].

In our study, family general practitioners were not the majority in initiating memory and psychogeriatric consultations, as is the case in some countries. This depends on each country's healthcare policy. Increasing demand from families and general practitioners for preventive measures against certain elderly pathologies, particularly dementia, can be hoped for. Currently, in our country, general practitioners play a central role in the care of the elderly, specifically dementia patients. Better awareness and training are needed to reduce diagnostic delays and prevent complications related to the dementia process.

The clinical profile:

The reason for consultation was dominated by psycho-behavioral disorders relating to several psychiatric pathologies, notably dementia (21%). Which is in perfect agreement with the literature data (20-38%) [20]. Indeed, psychogeriatric disorders were dominated by dementia and related disorders, mild cognitive disorders, depression then psychotic and delusional disorders. In the proportion of dementias, Alzheimer's, vascular and mixed dementia were the most common. Among the 60% of patients who had undergone the MMSE evaluation, it was between average and severe cognitive status. This result appears consistent with the dependence on daily life actions of our elders and is similar to those in the literature [23]. In addition to these data, it has been demonstrated that psycho-behavioral disorders were associated with an increase in the risk of cognitive decline and loss of autonomy [24].

All this contributes to reducing the quality of life of patients and caregivers which was demonstrated in the present study, since 21% of patients consulting for psycho-behavioral disorders were suffering from dementia and related dementia, which is in agreement with certain studies which found a rate ranging from 20% to 38% [4-24]. As for psychotic symptoms, they were relatively frequent in more than half of our series of elderly people without previous psychiatric history. Indeed, hallucinations, delusions as well as identification disorders, including false recognition and self-recognition disorders, were significantly frequent and linked to the diagnosis of Alzheimer's dementia and mixed dementia. It was a non-bizarre delusional activity with themes drawn from the patient's life context and situation without disorganization of thought and negative symptoms, which is consistent with certain results of research work in particular, Mendez M and his collaborators [25]. Furthermore, 41.1% of the people evaluated had hallucinations, particularly in Alzheimer's and related dementias. Two thirds of the hallucinations were visual and one third were auditory. Higher rates of visual rather than auditory hallucinations likely reflect the low percentage of schizophrenia diagnoses. Our results were in agreement with the literature. Indeed, Webster and Grossberg noted psychotic symptoms in 10% to 50% of subjects with Alzheimer's disease and up to 40% of patients with vascular dementia and delirium [26-27]. Thus, cognitive disorders remain the most important risk factor for the appearance of psychotic disorders in this

population category. However, these results highlight the importance of establishing a confident diagnosis, since many psychotic symptoms are due to reversible etiologies. Regarding drug prescription habits, our prescriptions were around 1% for antipsychotics and 14% for benzodiazepines. According to the High Authority for Health (HAS) [27] antipsychotic medications and benzodiazepines are over-prescribed in those over 70, respectively 12% and 35.5%, which is not in agreement with our prescriptions. Indeed, given the iatrogenesis linked to the use of psychotropic drugs and the various side effects caused by these drug classes in our elders [28], the rule was to limit prescription except in cases of absolute necessity.

V. Conclusion

The sociodemographic and clinical characteristics of patients referred to psychogeriatric consultation generally align with the findings of some studies in the literature. This study suggests a profile of septuagenarian patients of both sexes, predominantly dependent, living at home, surrounded by their families, or receiving home assistance. According to our study, three categories of psychogeriatric disorders stand out in terms of frequency:

- Dementias and Mild Cognitive Impairment (MCI) in the first position ;
- Mood disorders, notably depression ;
- Late-onset schizophrenia spectrum disorders.

These observations can be used to tailor the healthcare services of a future unit dedicated to geropsychiatry, preparing the system to receive elderly patients with the mentioned psychiatric disorders. Additionally, this study highlights the inadequacy of psychogeriatric consultations to meet the needs. Efforts should be made to enhance the training of specialist and generalist physicians in the prevention and diagnosis of certain diseases that pose a public health problem, including dementia-related disorders.

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