Epidemiological and diagnostic aspects of Sheehan syndrome in hospital settings in Mauritania: About 9 cases.

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Abstract

Introduction: Sheehan syndrome is a necrosis of the pituitary gland secondary to a haemorrhagic delivery, leading to a dairy emergence, secondary amenorrhea with a slow progressive evolution, which can last several years or even tens of years before the diagnosis. **Objective:** To evaluate the epidemiological and diagnostic aspects of Sheehan syndrome over a period from January 1, 2008 to January 2015, in a specialized hospital consultation. **Patients and methods:** This is a prospective study carried out on 9 cases of Sheehan collected from the various outpatient departments of the different hospitals of Nouakchott over a period of 7 years. Diagnosis was made on the clinical, biological with the follow-up of the evolution under treatment. **Results:** These were 9 patients (9F) with an average age of 43 years, with extremes 24-60 years. The average delay of the diagnosis is 8.33 years, with extremes of 2 to 15 years. The Sheehan alone represents 5 cases, or 55.5%, Sheehan associated 4 cases, or 44.5%, including 1 case associated with type 1 diabetes, ie 11.1%, 1 case associated with diabetes type 2, or 11.1% , 1 case associated with primary hyperparathyroidism, ie 11.1%, 1 case associated with schizophrenia, or 11.1%. The clinical and hormonal balance are in favor of a central attack with normal TSH and a low T4L, collapsed cortisolia, Progression was favorable under treatment. The pituitary scanner showed once an empty turcic saddle. **Conclusion:** Despite considerable progress in the area of gynecological obstetrics, the diagnosis of Sheehan syndrome still arises after several years of evolution and multiple consultations.

Keywords: Sheehan, pituitary, cortisolia, hyperparathyroidism, diabetes.

Introduction: Sheehan's syndrome or postpartum pituitary necrosis is an overall or partial pituitary insufficiency occurring in the course of a haemorrhagic obstetric event (1). Improvement in obstetric care (especially uterine revision) and progress in resuscitation have made this syndrome relatively uncommon. (2) The low prevalence and continuous regression of this syndrome makes its diagnosis difficult, and its metabolic complications and morbidity and mortality important not to be overlooked. The purpose of this work is to describe the epidemiological and diagnostic aspects of Sheehan syndrome in a hospital setting through a series of 9 cases.

Patients and methods: This is a prospective study of 9 cases of Sheehan syndrome, which were collected from the various outpatient departments of the various hospitals in Nouakchott over a period of 7 years. Diagnosis was made on the clinic with a combination of hypopituitarism secondary to a haemorrhagic (sometimes forgotten) delivery with no return of layers and milky climb, and the absence of direct and indirect signs of pituitary tumor mass imaging. From a biological point of view, we have observed the results of metabolic explorations; fasting glucose, as well as the pituitary axis were performed in all our patients, dynamic tests were not performed**.** On the radiological level, we observed the result of the pituitary imaging performed in our patients, it is mainly the pituitary scanner with the follow-up of the evolution under treatment.

RESULTS: These were 9 patients (9 women) with an average age of 43 years, with extremes 24-60 years. The average delay of the diagnosis is 8.33 years, with extremes of 2 to 15 years. Sheehan alone represents 5 cases, or 55.5% of the cases, Sheehan associated 4 cases, or 44.5%, Including 1 case associated with type 1 diabetes who is the youngest patient (24 years), with an earlier diagnosis at 2 years, and the only one with overall pituitary insufficiency (11.1% of cases), 1 case associated with type 2 diabetes in a patient with a family history of diabetes (11.1%),1 case associated with hyperparathyroidism diagnosed in symptomatic hypercalcemia, which is normalized after removal of the upper left parathyroid nodule, well visualized by a parathyroid ultrasound(11.1% of cases), 1 case associated with schizophrenia(11.1% of cases), The main causes are postpartum haemorrhages, unspecified in etiology of delivery in hospitals and without strict

gynecological supervision. The main physical signs are: axillary and pubic depilation in 88.89% of cases, a cutaneous-mucous pallor in 100% of cases, a cutaneous depigmentation in 88.89% of the cases, a cutaneous dryness in 88.89% of the cases, bradycardia in 55.5% of the cases. On the biological level, hyperglycemia was observed in 22.22% of cases, hyponatraemia in 66.67% of cases. On the hormonal level, 100% of cases had a corticotropic and thyrotrophic deficit, one case involving a gonodotropic deficit (11.1%). The hormonal balance was in favor of a central attack with a normal TSH and a low T4L, collapsed cortisolia thus orienting the diagnosis. The haemorrhages occurred after quarantine, with a considerable diagnostic delay. The progression was favorable under treatment. The pituitary scanner had once shown an empty turkey sella in the youngest type 1 diabetic patient

Discussion: Thanks to the progress of obstetrical care and the development of resuscitation measures (2), Sheehan syndrome has become a rare entity in the developed country. But in countries where the means are still insufficient, it is often diagnosed in a late clinical picture, this is the case of our country Mauritania. In developed countries, this syndrome has become so rare that publications are limited to isolated cases (4, 5, 6, 7). Sheehan syndrome remains the leading cause of hypopituitarism acquired in many emerging countries (8, 9, 10), hence the need to know and study it. In Mauritania it is the first small series that clarifies the light on this entity, but according to estimates this syndrome is not sufficiently diagnosed, due to several reasons:

-delayed diagnosis in multiparous women who are close to menopause,

-secondary sterility which may remain for a long time without consultation,

-the silent clinical picture that can evolve over more than ten years,

-and the difficult diagnosis in immediate postpartum (11). As well as the metabolic risk factor that appear after years of evolution adds to other cardiovascular risk factors appearing with age (3). In our series the average age of patients at the time of the haemorrhagic accident is 36 years, this result is superior to the main published studies or the age is between 27 and 30.9 years at the time of the haemorrhagic accident. The factors favoring the Sheehan syndrome which have been evoked in the literature,

among them multiparity (13, 14, 15), It is 88.89% in our series. Several explanations can be mentioned: repeated attacks during childbirth, functional depletion of the pituitary gland during pregnancy, the trivialization of pregnancy by multiparous women with less medical follow-up, and a rate of home delivery that can have complications bleeding (2).In our series 100% of patients had a postpartum haemorrhagic event. This result agrees with the main published studies in the literature (16, 17).The silent clinical picture of hypopituitarism leads to greater diagnostic delay with inadequate medical care, especially as call signs are often not very specific (11,4).

The acute adrenal insufficiency and the search for the causes of secondary sterility in a young woman remain the causes of the diagnosis of the immediate postpartum.

In our series, the average diagnostic delay is 8.33 years (with extremes of 2 to 15 years), according to the data of the patients (illiterate). In the literature, this delay varies between 5 and 48 years (8, 18). In our series we note a frequency the amenorrhea is constant at 100%, which agrees with the literature of 72 to 100% (13, 17). For general signs of type of asthenia (100%), slimming (88.89%), while the weakness, the cutaneous signs were noted to 100% in our series, which can be superimposable to those of the other series of the literature (73-90% of the cases) (13, 8). The thyrotropic deficiency is responsible for hydro-sodium retention with weight gain (19). Growth hormone deficiency induces an increase in fat mass with the formation of an android obesity (20, 19). In our series the totality of our patients had a BMI between 18 and 25kg / M2. 60% of our series had orthostatic hypotension, which is consistent with data in the literature or is present in 40% to 63% of Sheehan syndrome cases (13, 8, 17). As regards biology, hypoglycemia has been reported in several series of literature (12, 21, 22), has not been reported in our series, it is the combined effect of somatropic, corticotropic and thyroid stimulating. Hyponatraemia was found in 66.67% of our patients, and is relatively frequent during the hypopituitarisms which may be the reason for discovering Sheehan syndrome (23, 24). It is secondary to corticotropic and thyreotropic deficits (25). Regarding the other biological parameters have not been checked in our series. Note that somatotropic and thyreotropic deficits are responsible for

lipid abnormalities, mainly from 20% to 78% and from 42% to 50% in the literature (26, 27, 28). In our series the deficit mainly found is corticotropic and thyreotropic (100%), and 11.1% associating a gonatropic deficiency and diabetes insulinorequirant.

Conclusion:

Postpartum hemorrhage remains the leading cause of maternal mortality in our country, which is why many Sheehan syndromes go unnoticed, and the need for increased vigilance during our consultations for early management of this pathology to silent symptomatology. Therefore we recommend:

- Careful questioning of the obstetric history, particularly the course of delivery, the milky ascent and the postpartum period,

-reduce the financial cost of the hormonal assessment essential for the diagnosis of this pathology.

-in view of the importance of illiteracy in our society, our patients must benefit from education for follow-up care.

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