

Quality of Life of Patients with Urticaria in Ouagadougou (Burkina Faso)

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Abstract

Introduction: The prevalence of urticaria is increasing. Approximately 20% of individuals have suffered from an acute episode of urticaria at least at some point in their lives. The objective of this study was to evaluate the clinical and therapeutic socio-demographic profile and quality of life of patients followed for urticaria in the dermatology-venereology department of the Yalgado Ouédraogo University Hospital in Ouagadougou. **Methodology:** We conducted a descriptive cross-sectional study over a 5-year period from 1 January 2015 to 31 December 2019. The data were collected retrospectively by analysing the files and prospectively by evaluating the quality of life with DLQI. All the records of patients treated for urticaria at the Dermatology-Venerology Department of the Yalgado Ouédraogo University Hospital during the period were included. **Results:** Urticarial frequency is 1.91%. There were 36 men (25.71%) and 104 women (74.28%), *i.e.* a sex ratio of 0.34. The median age was 31 years with extremes of 4 to 70 years. The 30 - 45 age group accounted for 51.42%, followed by the 16 - 29 age group (31.42%), then the 46 - 65 age group (9.28%), the 4 - 15 age group (5.71%) and the over 66 age group (2.14%). In terms of occupation, pupils/students accounted for 37.1%, housewives for 18.6% and workers for 44.3%. As for the residence of the patients, 88.57% lived in Ouagadougou. Personal history of atopy, it concerned 19.26% of patients, with precisely 9.28% having asthma history, 7.14% having rhino-sinusitis history, 1.42% of atopic dermatitis and allergic conjunctivitis respectively. For clinical aspects, 97.14% of the patients had superficial urticaria, and 2.86% had facial angioedema. There were 35% (49) patients with acute urticaria and 65% (91) with chronic urticaria. Chronic urticaria was

spontaneous in 55% (50) and physically inducible in 10% (9) (sweating, pressure or friction). 97.14% of patients received antihistamines associated with systemic corticoids in 2.86%. For Quality of life, the mean DLQI score was 7.51, indicating a moderate effect of urticaria on patients' quality of life. The quality of life of women was more affected than that of men, especially in the professional and social spheres. **Conclusion:** In hospital frequency of urticaria is low in Ouagadougou, a predominance of chronic spontaneous urticaria whose management involves the use of second generation antihistamines at a dosage and duration that do not meet international recommendations. The patients' quality of life was moderately impaired.

Keywords

Chronic Spontaneous Urticaria, Acute Urticaria, Physical Urticaria, Quality of Life

1. Introduction

The prevalence of urticaria, an inflammatory dermatosis characterised by the occurrence of oedematous, fleeting, highly pruritic and migratory papular plaques of cutaneous and/or mucosal location, is increasing [1] [2] [3] [4]. Approximately 20% of individuals have suffered from an acute episode of urticaria at least one time in their lives [1] [5]. In 2014, in France, it affected 20% of adults and 10% of children [6] [7]. In Togo, the hospital frequency was 1.1% in 2017 [8].

Although the positive diagnosis is easy to make, management sometimes poses difficulties for the practitioner, especially in cases of chronicity [9]. Urticaria alters the quality of life of patients, due to pruritus which can be disabling, emotional disorders, as well as restrictions in social life especially when it is chronic [10] [11] [12]. The objective of this study was to evaluate the clinical and therapeutic socio-demographic profile and quality of life of patients followed for urticaria in the dermatology-venereology department of the Yalgado Ouédraogo University Hospital.

2. Methodology

We conducted a descriptive cross-sectional study over a 5-year period from 1 January 2015 to 31 December 2019. The data were collected retrospectively by analysing the files and prospectively by evaluating the quality of life. All the records of patients treated for urticaria at the Dermatology-Venerology Department of the Yalgado Ouédraogo University Hospital (YO UHC) during the period were included. Unusable files were excluded. The included patients were then contacted for a follow-up consultation, during which quality of life was assessed by the Dermatology Life Quality Index (DLQI) after obtaining their informed consent. Data analysed using Epi info software version 7.2.2.6. Authorisation for data collection was obtained from the head of the health facility. Ano-

nymity and medical confidentiality were respected throughout the study.

3. Results

We collected 216 patients suffering from urticaria in 60 months out of 11,255 patients seen in dermatological consultations at the YO University Hospital, and hospital frequency is 1.91%. We retained 140 exploitable files for the study. Regarding the socio-demographic data, there were 36 men (25.71%) and 104 women (74.28%), *i.e.* a sex ratio of 0.34. The median age was 31 years with extremes of 4 to 70 years. The 30 - 45 age group accounted for 51.42%, followed by the 16 - 29 age group (31.42%), then the 46 - 65 age group (9.28%), the 4 - 15 age group (5.71%) and the over 66 age group (2.14%).

Pupils and students accounted for 37.1%, housewives for 18.6% and workers for 44.3%. For the residence of the patients, 88.57% lived in Ouagadougou.

Personal history of atopy concerned 19.26% of patients, with precisely 9.28% having asthma history, 7.14% having rhino-sinusitis history, 1.42% of atopic dermatitis and allergic conjunctivitis respectively. A history of drug hypersensitivity (ciprofloxacin, metronidazole, artemether-lumefantrine, quinine, ibuprofen, aspirin) was found in 5% of patients. A history of food hypersensitivity was found in 2.85%, while 21.42% had had a previous episode of urticaria. Other personal history was hypertension (23.57%), diabetes (10%), peptic ulcer disease (6.42%) with helicobacter pilori positivity, sickle cell disease and HIV infection (2.14% each).

Previous treatments received by patients for their urticaria prior to consultation at YO UHC included antihistamines (45%) and corticosteroids (16.42%).

Regarding clinical aspects, 97.14% of the patients had superficial urticaria, and 2.86% had facial angioedema. There were 35% (49) patients with acute urticaria and 65% (91) with chronic urticaria. Chronic urticaria was spontaneous in 55% (50) and physically inducible in 10% (9) (sweating, pressure or friction).

Of the 49 patients with acute urticaria, 18 were triggered by food (cricket, horse mackerel fish, okra) or medication.

Blood tests were prescribed to patients, including 52.85% haematological tests (33/60 eosinopenia), 24.28% biochemical tests, and hepatitis B and C serology in 8.56%.

With regard to the management of urticaria, all 140 patients received medical treatment, antihistamines (97.14%) associated with systemic corticoids in 2.86%. The systemic corticosteroids were betamethasone or prednisolone prescribed for three days to one month. First generation antihistamines (mequitazine, hydroxyzine) were used in 26.42% for an average of two weeks. Second generation antihistamines (loratadine, desloratadine, cetirizine, levocetirizine, rupatadine, bilastine) were used in 70.68% for 2 weeks (for acute urticaria) and one month (for chronic urticaria at a rate of one tablet per day).

Other drugs were associated with the management of comorbidities, antiparasitics (51.42% for systematic deworming), emollients (39.28%), antifungals (4.28%),

antibiotics (1.42%), antipruritic drugs (2.14%), and superfatted soap (1.42%).

Quality of life was assessed in 58 patients, 39 of whom were women and 19 men. The mean DLQI score was 7.51, indicating a moderate effect of urticaria on patients' quality of life (QoL). Urticaria had a significant impairment in the QoL of 15 patients; an extremely significant impairment in one patient. It had no effect on quality of life in 5 patients, a small effect in 17 patients and a moderate effect in 20 others (**Table 1**). The quality of life of women was more affected than that of men, especially in the professional and social spheres.

4. Discussion

Due to the retrospective nature of the study, we encountered the limitations and constraints inherent in this type of study.

The frequency of urticaria was 1.91% in our study over a period of 60 months. This frequency is close of Teclessou study result which was 1.1% over a period of 18 months in Lomé in 2019 [8]. The low prevalence of urticaria could be explained by the hospital-based nature of the study, as patients suffering from urticaria are also seen by general practitioners or nurses in first-level health facilities in Burkina Faso. Thus a small proportion of patients arrive at the hospital.

The predominance of women (sex ratio 0.34) and the median age of 31 years observed in our study series is also found by most authors. Baseke in Kinshasa noted 63% of women and an average age of 30.5 years [13]. Teclessou in Lomé reported a sex ratio of 0.49 and an average age of 34.5 years [8]. Abdelaziz in his cohort in the Maghreb noted that 72% of the patients were women and the average age was 38 years [9]. Belhareth also reported a female predominance (sex ratio of 0.51) in Tunisia and a mean age of 36 years [14]. Ben Brahim in Tunisia also reported this female predominance, 132 women, 68 men, a sex ratio of 0.51 and an average age of 36.3 years [15]. Augey noted a sex ratio of 0.54 in Lyon Sud in France [16]. This is also noted by other French authors [17] [18]. This female predominance cannot be attributed solely to the fact that women consult more often than men in the African context. Some authors find that women are more sensitive than men to different nociceptive stimuli and therefore more reactive to urticaria [19] [20] [21].

Table 1. Distribution of patients according to DLQI score.

| Score | Interprétation | Number (n = 58) |
|-----------|-----------------------------------|-----------------|
| [0 - 1] | No effect on QoL | 5 |
| [2 - 5] | Little effect on QoL | 17 |
| [6 - 10] | Moderat effect on QoL | 20 |
| [11 - 20] | Strong effect on QoL | 15 |
| [21 - 30] | Extremely important effect on QoL | 1 |

With regard to occupation, pupils and students represented 37.1%. Baseke found 32% students in Kinshasa and 44.3% workers due to induction factors such as heat, exertion, sweating, friction [13].

A personal history of atopy was found in 19.26% of our patients. This is lower than the values reported in the Togolese (65.1%) and French (40%) studies [8] [18]. Belhareth reported lower values than ours for personal and family atopy, respectively 12.5% and 7% of patients [14]. Among these histories of atopy, asthma (9.28%) and allergic rhinitis (7.14%) predominated in our patients as in these studies [3] [18] [22]. While it was allergic rhinitis (47.6%) and allergic conjunctivitis (44%) that predominated in the Togolese study [8]. Atopic patients would indeed be predisposed to develop other hypersensitivities.

Spontaneous chronic urticaria predominated in our series as in the other studies, 53.4% in Lomé, 64% in Monastir [8] [14]. Indeed, the persistent and disabling nature of chronic spontaneous urticaria would explain the greater recourse to hospital care.

Angioedema was minimal in our series contrary to other African series. Indeed, Teclessou reported 40.3% angioedema [8]. These angioedemas are probably managed in other emergency departments in our work context. It is important to look for an “allergy” when faced with acute urticaria, as it can be potentially life-threatening with anaphylactic shock in the extreme.

The induction factors were pressure and sweating in our patients. Ben Brahim also noted heat, pressure and exertion as the main induction factors in inducible urticaria. Stress, infections and food were also noted as triggers for chronic urticaria [15]. Induction factors are very varied, including heat after sun exposure, sweating and cold reported by Trevisonno [23].

Some patients have blamed food for the onset of their lesions. Indeed, food can trigger acute recurrent urticaria [15]. Cherrez reported that 10% of patients with chronic spontaneous urticaria had incriminated a food origin [24].

We noted a history of peptic ulcer disease with *Helicobacter pylori* positivity in 6.42% of patients. A significant association of chronic urticaria with *Helicobacter pylori* infection was reported by Sadighha [25].

Antihistamines were used in 97.14% of patients, of which first generation in 26.42% and second generation in 70.68%. Most authors report the use of antihistamines in treatment in varying proportions. Kevorkian-Verguet reported 51% antihistamines in Grenoble in 2017 [26] [27]. Teclessou reported 100% use of antihistamines, 86% of which were second generation [8]. Baseke reported that 68% of patients were treated with second-generation antihistamines, combined with first-generation antihistamines in 30% and corticosteroids in 2% of cases [13]. For chronic spontaneous urticaria, European guidelines stipulate the use of second-generation antihistamines at a MA dosage in the first line. After 2 weeks, this dosage can be increased to 4 times the MA dose in case of poor response. In case of failure after 4 weeks, omalizumab or ciclosporin can be considered. [28] [29] [30].

Thus, in our series, the management of chronic spontaneous urticaria does not correspond to these international recommendations. This was also reported in the Maghreb study, which noted a lack of information on the recommendations for the management of chronic spontaneous urticaria among physicians [5] [14]. It is necessary that recommendations for the management of chronic urticaria are disseminated and applied by general practitioners and specialists to allow better management of urticaria. In our context, the unavailability and financial inaccessibility of omalizumab is also a barrier to the application of these recommendations.

Other drugs such as antiparasitics, antifungals and antibiotics were prescribed in relation to comorbidity.

The impact of urticaria on the patient's quality of life, as assessed by the DLQI, had a mean score of 7.51. Other authors reported a similar score such as Guillet in 2017 and Lacour in 2015 in France [31] [32]. Zhong in China also noted a mean DLQI score of 7.3 ± 3.4 , CU had a moderate effect on the quality of life of the patients in our series and those in these studies [33]. Bernier found in their study that chronic urticaria is one of the chronic dermatological diseases with the highest impact on quality of life in Paris, France in 2017 [34].

As the DLQI is a generalist tool and not specific to urticaria, it may not have captured some of the particularities of the disease. More specific tools such as the Urticaria Control Test (UCT) could be used to better define the specificities of urticaria.

5. Conclusion

Urticaria has a low frequency in hospitals in Ouagadougou, with a female majority, a predominance of chronic spontaneous urticaria whose management involves the use of second generation antihistamines at a dosage and duration that do not meet international recommendations. The patients' quality of life was moderately impaired.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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