



Quality of life in chronic urticaria

This thesis is submitted to the dermatology department/ Faculty of medicine/
Benghazi university in partial fulfillment of requirement for
the degree of Master (M.Sc) in dermatology and venereology

By:

Bashir Hussein Elsherif

Supervisor:

Dr. Omran Omar Bugrein

Assistant Professor of dermatology and venereology

Benghazi university

Faculty of Medicine

Dermatology department

Benghazi – Libya

2012

CERTIFICATION

This thesis entitled “ Quality of life in chronic urticaria ” prepared by Dr. Bashir H. El sherif, under supervision of Dr. Omran O. Bugrein, has been approved for submission to the dermatology department /Benghazi university/ Benghazi -Libya, as partial fulfillment for the certification of Master in dermatology and venereology.

Supervisor:

Dr. Omran Omar Bugrein

Dermatology department

Faculty of Medicine

Benghazi university

Benghazi – Libya

Signature :

Candidate :

Dr. Bashir Hussein Elsherif

Dermatology department

Al Jamhoria hospital

Benghazi- Libya.

Signature :

**I Sincerely dedicate this work to my
mother and my wife**

ACKNOWLEDGMENT

My greatest gratitude and sincere thanks to GOD for his indefinite help.

Special thanks and great indebtedness to my supervisor: Dr. Omran O. Bugrain, for suggesting the plan of this work, and for his encouragement and helpful advice throughout the whole period of the study.

Great thanks to my colleagues, senior doctors and the staff members in the department of dermatology / Al Jamhoria hospital for their kind help and support by words, resources and efforts.

Special thanks to Prof. Dr. Gamal. A Duweb; The head of dermatology department for his nice help and cooperation.

Thanks to my patients who participated in this study.

Finally , the great thanks to my family , for their great support.

Contents

	Page
1	Summary 1
2	Introduction 4
3	Review of literature 6
3.1	Epidemiology 6
3.2	Pathophysiology 6
3.3	Histopathology 8
3.4	Chronic urticaria 8
3.5	Diagnosis 19
3.6	Investigations..... 20
3.7	Treatment 21
3.8	Quality of life 23
4	Aim of study 29
5	Materials and methods 30
6	Results 33
7	Discussion 46
8	Conclusions..... 52
9	Recommendations 53
10	Arabic summary 54
11	References 56
12	Appendix 67

1 . Summary

Introduction :

Urticaria is a common disorder with a complex and not well understood physiopathology. Spontaneous urticaria is classically distinguished into an acute form, when lasting less than 6 weeks, or into a chronic form, when lasting longer than 6 weeks.

Chronic urticaria has a prevalence of 0.5% to 3% in the general population, it is rare in children and usually persists for months or years . Chronic urticaria has no obvious cause, although some factors (eg, drugs, infections, emotional stress, and food) can serve as eliciting stimuli.

The disease often has a deep impact on the patient's quality of life, because severe itch and cutaneous lesions interfere with sleep , work and leisure activities. The assessment of the disease impaction on QOL in urticarial patients is very important to know how disease can lead to impairment, which lead to disability and which in turn may lead to handicap.

Aim of the study :

The aim of this study was to assess the impact of the chronic urticaria in Libyan patient`s life and to determine the relationship between quality of life index and disease epidemiology .

Materials and methods :

Fifty Libyan patients aged above 16 years with the clinical diagnosis of chronic urticaria attending dermatology department, Al Jamhoria hospital, Benghazi – Libya were enrolled in this study . Each patient was subjected to the detailed disease history and complete dermatological examination and interviewed to fill and answer the questions of quality of life index questionnaire.

The Dermatology Life Quality Index questionnaire is designed for use in adults and applied on both male and female with the appearance of weals for at least 3 days per week for six consecutive weeks or more. Assessment of the QOLI scores was carried out and Statistical analysis of the data was done by using t –test , and chi-square tests.

Results :

Among 50 patients with the clinical diagnosis of chronic urticaria were included in this study , 41 patients (82%) were females and 9 patients (18%) were males .The patient age range from 17-60 years (mean 36.8years) and most of cases were of age group 31-40 year (32%) , followed by age group 21-30 year (28%) , and in majority of our patients (70%) the education level is not high .

The study show that (66%) of our patients were married , and majority of the patients were house wives (56 %).

In majority of our patients (82%) , the disease has no relation to food as etiological or aggravating factor and only 9 patients (18%) related their urticaria to drugs .

Stress was aggravating factor in (60%) of patients .while the exposure to sun & hotness was described as aggravating factor in (32%).

H . pylori was positive in only 4 patients (8%) and positive family history of urticaria was recorded in only 2 cases (4%) . One or more systemic illness associated with urticaria were present in 16 patients (32%).

The duration of disease range from 1.5 – 240 months (mean 40 months). The dermatological quality of life score was ranging from 5-26 (mean score was 19) and majority of them (96%) have a very large or extreme effect on their life quality .The mean score of QLI was almost equal in both males and females .

It was clear that symptoms and feelings are the most affected part of quality of life assessed by quality of life index, followed by work and school.

Conclusions :

Chronic urticaria is a common disease and stress was important aggravating factor .The disease has a great impact on patient`s life. More than (90 %) of our study sample have large or extreme effect on patient quality of life whereas symptoms and feelings are the most affected part assessed in our patients followed by work and school.

2 . Introduction

Urticaria is a common disorder with a complex and not well understood physiopathology. The main effector cell is the cutaneous mast cell, which can degranulate in response to many different causes (eg, drugs, chemical compounds, autoantibodies, complement factors, or proteases) and can release histamine and other mediators that are eventually responsible for weal formation. Spontaneous urticaria is classically distinguished into an acute form, when lasting less than 6 weeks, or into a chronic form, when lasting longer than 6 weeks.¹

Acute urticaria is common, with a lifetime prevalence of about 15% to 20% in the general population², and tends to be self-limited, with a complete resolution within 3 weeks in more than 90% of cases³. The most commonly identified causes of acute urticaria are infections (about 40% of cases), particularly viral infections of the upper respiratory tract, followed by drugs and food^{2,3}.

Chronic urticaria has a prevalence of 0.5% to 3% in the general population, it is rare in children and usually persists for months or years⁴. Chronic urticaria has no obvious cause, although some factors (eg, drugs, infections, emotional stress, and food) can serve as eliciting stimuli. In some patients, there is evidence that chronic urticaria has an autoimmune origin caused by the presence of autoantibodies to FcεRIα or to IgE itself.^{5,6} The disease often has a

deep impact on the patient's quality of life, because severe itch and cutaneous lesions interfere with sleep and with work and leisure activities.⁷

The ultimate goal care of people with urticaria is to provide the best overall therapy and maximize improvement in QOL for the patient. A clear understanding of each patient with urticaria and its effects on his or her QOL is of great importance in routine clinical practice, when decisions are taken regarding the management of their disease. For example, a poorer QOL may influence the clinician and the patient's decision to consider treatment options that may be associated with greater side effects or other disadvantages.

Impaired patient QOL has been shown to be associated with poor treatment compliance.^{8,9} This in turn can cause further deterioration of the individual's condition, and impairment of their QOL, so, the assessment of the disease impaction on QOL in urticarial patients is very important to know how disease can lead to impairment, which lead to disability and which in turn may lead to handicap.

3 . Review of literature

3.1 Epidemiology:

Urticaria/angioedema is considered to be acute if the condition lasts less than 6 weeks. Most acute episodes are due to adverse reactions to medications or foods or, in children, to viral illnesses. Episodes of urticaria/angioedema persisting beyond 6 weeks are considered chronic and are divided into two major subgroups, chronic autoimmune urticaria (45%) and chronic idiopathic urticaria (55%), which have a combined incidence in the general population of 0.5%. Various types of physical urticaria/angioedema may last for years, but the individual lesions last fewer than 2 hours (except in delayed pressure urticaria) and are intermittent. 40% of adult patients with urticaria also experience angioedema.

Approximately 50% of patients with chronic urticaria (with or without angioedema) are free of lesions within 1 year, 65% within 3 years, and 85% within 5 years. Fewer than 5% have lesions that last for more than 10 years. The hereditary group of disorders is considered to be lifelong once the diagnosis becomes clinically manifest.¹⁰

3.2 Pathophysiology:

Urticaria is due to a local increase in permeability of capillaries and venules. These changes are dependent on activation of cutaneous mast cells, which contain a range of pro-inflammatory mediators, but predominantly histamine. Increased concentrations of histamine have been recovered in tissue fluid from

lesions of chronic idiopathic urticaria and from venous effluent draining the urticated areas in most physical urticarias.¹¹ Activation of H1 receptors in the skin induces itching, flare, erythema and wealing. Activation of H2 receptors contributes to erythema and wealing, but not itch or flare. So far, H3 receptors identified in the nervous system as inhibitory autoreceptors, in that their activation leads to reduced biosynthesis and release of histamine which have not been identified in human skin. Other vasoactive and chemoattractant mast cell-derived mediators, and secondary release of non-mast cell mediators from inflammatory cells, may amplify and prolong the weal.

Mast cell activation may be non-immunological or immunological. Non-immunological mast cell activation occurs with a variety of substances including neuropeptides, such as substance P; drugs, including opiate derivatives, such as morphine and codeine, vancomycin and polymyxin; some radiocontrast media; and some foods, such as strawberries. Neuropeptides elicit histamine but not prostaglandin D2 (PGD2) or leukotriene C4 (LTC4) release.

Immunological mast cell activation occurs as a result of linkage of two adjacent α -subunits of high-affinity IgE receptors (Fc ϵ RI α) of a mast cell. Preformed histamine, proteases and newly generated mediators, including PGD2 and cytokines IL-3, - IL4, - IL5, -IL6, - IL8, - IL13 and tumour necrosis factor- α (TNF- α) are released from mast cells. Complement C3a and C5a can release histamine directly and appear to be a necessary co-factor for some autoantibody induced degranulation¹². Basophils also express Fc ϵ RI α and release histamine, IL-4, IL-13 and LTC4 on activation.

Tryptase and chymase are released in conjunction with histamine. Potentially, they could play a part in the pathogenesis of urticaria, as chymase can induce mast cell degranulation and tryptase and chymase cleave C3 to C3a and C3b. C3a can activate mast cells, and C3b can activate the alternative complement pathway¹³.

3.3 Histopathology :

The histopathology of ordinary urticarial weals is usually nonspecific, with vascular and lymphatic dilatation, oedema and a variable perivascular cellular dermal infiltrate consisting of lymphocytes, monocytes, neutrophils and eosinophils. On electron microscopy, dermal mast cells show signs of degranulation¹⁴.

3.4. Chronic urticaria:

Chronic urticaria of at least 6 weeks' duration may be ordinary, physical or vasculitic.

3.4.1 Chronic ordinary urticaria:

Weals consisting of pale to pink, oedematous, raised areas of the skin often with a surrounding red flare. They occur anywhere on the body, including scalp, palms and soles, in variable numbers and sizes, ranging from a few millimetres to lesions covering large areas and of varying shapes including rounded, annular, serpiginous and bizarre patterns due to confluence of adjacent lesions .Weals generally last a few hours and resolve within 24 h leaving the skin with a normal appearance. Weals are generally very itchy.

In 50% of ordinary urticaria cases, there may be associated angio-oedema. These deep swellings, which may be the same colour as normal skin, occur most frequently on the face, affecting the eyelids and lips, but any other area of the body may be affected, such as ears, neck, hands, feet and genitalia. Mucosal swellings occur inside the oral cavity on the buccal mucosa, tongue, pharynx and larynx. The lesions may last for several days. Urticaria may be preceded by vomiting and be associated with systemic symptoms of malaise, loss of concentration, feeling hot and cold, headache, vomiting, abdominal pain, diarrhoea, arthralgia, dizziness, syncope and in its most severe acute form, with anaphylaxis¹⁵.

3.4.2 Potential provoking factors:

3.4.2.1 Drugs:

Many drugs can induce urticaria, but this is frequently of the acute type. The relationship between penicillin and chronic urticaria is a complex one¹⁶, Salicylates and other related non-steroidal anti-inflammatory drugs such as diclofenac can aggravate urticaria and asthma by non-allergic mechanisms¹⁷. ACEIs can provoke angio-oedema and may aggravate urticaria.

3.4.2.2 Foods and food additives:

Numerous foods have been blamed as a cause of urticaria¹⁸ these include fish, eggs, nuts, strawberries & chocolate. The most frequently implicated food additives are tartrazine (E102). other azo dyes including amaranth (E123) and sunset yellow (E110)¹⁹.

3.4.2.3 Infections/infestations:

Chronic urticaria is frequently flared by intercurrent viral infections. The incidence of bacterial infections such as dental sepsis, sinusitis, urinary tract and gallbladder infections in chronic urticaria varies in different series²⁰. More recently, a possible role for helicobacter pylori has been suggested²¹. Candida infections, although described, are found extremely rarely to be a cause of urticaria²². Linear weals may follow migration of ancylostoma and Strongyloides worms²³.

3.4.2.4 Inhalants

Grass pollens, mould spores, animal danders, house dust and even tobacco smoke have been implicated as triggers of acute or chronic urticaria²⁴.

3.4.2.5 Systemic disease:

Collagen vascular diseases, in particular lupus erythematosus and Sjogren's syndrome, have been described as possible causes of chronic ordinary urticaria, but these are usually associated with urticarial vasculitis.

Chronic urticaria may be associated with IgM macroglobulinaemia (Schnitzler's syndrome) but increased incidence of thyroid autoantibodies and disturbances of thyroid function have been reported²⁵. There is no convincing evidence of any association of chronic urticaria with malignancy²⁶.

3.4.2.6 Menstrual cycle and pregnancy:

Urticated papules and plaques of pregnancy (PUPPP) is the most common specific dermatosis of pregnancy and occurs during the third trimester.

Urticaria may worsen premenstrually, but if urticaria occurs predominantly or only premenstrually, it has been attributed to progesterone sensitivity ²⁷ or more rarely oestrogen sensitivity ²⁸.

3.4.2.7 Implants:

Urticaria has been linked anecdotally with a metal pin in the femur ²⁹, a metal dental prosthesis ³⁰ and with dental amalgams ³¹.

3.4.2.8 Psychological causes:

Psychological factors appear to play a contributory role in a proportion of patients, and flare-ups of urticaria do occur at times of psychological stress ³². Depression and anxiety were found more frequently in chronic urticaria in two studies ^{33,34}, but not in another ³⁵; however, depression may reduce the threshold for pruritus, and the effect of chronic urticaria on quality of life should not be underestimated ³⁶.

3.4.3 Physical urticarias :

The physical urticarias are a distinct subgroup of urticarias in which a specific physical stimulus induces reproducible wealing .

The frequency of physical urticarias in the general population is unknown, but they account for 19% of urticaria cases in a dermatology clinic, with dermographism making up 9% and cholinergic urticaria 4%³⁷.

3.4.3.1 Urticaria due to mechanical forces:

3.4.3.1.1 Dermographism (factitious urticaria):

Arise from firm stroking of the skin ³⁸. This response consists of local erythema due to capillary vasodilatation, followed by oedema and a surrounding flare due to axon reflex-induced dilatation of arterioles. This reaction is normal, but in 5% of normal people this physiological response is sufficiently exaggerated to warrant the term dermographism ^{39,40}. In a minority of these people, it is accompanied by itching (symptomatic dermographism). Symptomatic dermographism may have an immunological basis.

Other forms of dermographism include ; red dermographism - where repeated rubbing is necessary to induce small, punctate weals ⁴¹. Cholinergic dermographism - is seen in some patients with cholinergic urticaria, whose dermographic response consists of an erythematous line studded with punctate weals characteristic of cholinergic weals ⁴². Delayed dermographism - is rare.

3.4.3.1.2 Delayed pressure urticaria:

Delayed pressure urticaria occurs in 37% of people with ordinary chronic urticaria. Patients with predominantly delayed pressure urticaria nearly always have a component of chronic ordinary urticaria. Wealing occurs at sites of sustained pressure applied to the skin after a delay of 30 min to 9 h, but usually 4–8 h, and lasts 12–72 h ⁴³. The underlying mechanism for delayed pressure urticaria is unclear .

Lesions may be itchy, but are often tender or painful, particularly on the soles and scalp. The severity is variable, but it may be accompanied by systemic symptoms of malaise, flu-like symptoms, arthralgia, myalgia and leukocytosis.

3.4.3.1.3 Vibratory angio-oedema:

Is a very rare form of urticaria, which was first described in its familial form⁴⁴. Any vibratory stimulus such as jogging, vigorous towelling induces a localized, red, itchy swelling within minutes and lasting less than a few hours, but if the stimulus is severe, generalized erythema and headache may occur. Avoidance of the precipitating stimuli enables patients to lead normal lives. Occasionally, vibratory angio-oedema may occur in an acquired form^{45,46}.

3.4.3.1.4 Cholinergic urticaria:

Cholinergic urticaria is a very distinctive type in which characteristic small weals appear in association with sweating. It accounts for about 5% of urticaria, and lesser degrees are common in adolescents. Wealing occurs on stimulation of sweating, whether induced by a rise in core temperature, emotion or gustatory stimuli.

The patient complains of itching weals that appear within minutes of exertion, when hot, or after emotional disturbances or even eating spicy food. The weals characteristically are small, 1–3 mm across, with or without a well-marked flare .

The diagnosis of cholinergic urticaria is best confirmed by provocation, with the appearance of typical weals after warming, for example in a hot bath at

42°C for 15min, to raise the core temperature by 0.7–1°C or exercise in a hot environment ⁴⁷.

3.4.3.1.5 Localized heat urticaria:

This is one of the rarest forms of physical urticaria. Localized warming of skin at temperatures varying from 38 to 50°C for 2–5 min induces wealing at the test site lasting 1 h ⁴⁸.

3.4.3.1.6 Idiopathic cold urticaria:

Immediate cold contact urticaria :

This is by far the commonest form, occurring at any age but most frequently in young adults. It may be preceded by non-specific upper respiratory viral infections, infectious mononucleosis or insect bites. Itching and wealing of the skin occur on cold exposure within minutes and last up to 1 h. Cold winds and cold rain are particularly effective stimuli. Sometimes, the mouth and pharynx may swell after drinking cold liquids. Systemic symptoms include flushing, palpitations, headache, wheezing and loss of consciousness, and drowning has occurred after cold water bathing ⁴⁹.

3.4.3.1.7 Delayed cold contact urticaria:

Where wealing occurs after a delay of hours after cold contact, is very rare ⁵⁰. A familial form has been reported. A rare form includes Localized cold contact urticaria and Familial cold urticaria ⁵¹.

3.4.3.1.8 Solar urticaria:

Solar urticaria occurs as pruritus , erythema , weals and occasionally angioedema that develop within minutes after exposure to sun or artificial light sources(visible, long- or short-wave ultraviolet radiation) and usually fade within 2 h. Headache , syncope , dizziness , wheezing , and nausea are systemic features . Most commonly , solar urticaria appears during the third decade⁵² . Although solar urticaria may be associated with systemic lupus erythematosus and polymorphous light eruption , it is usually idiopathic .The development of skin lesions in response to specific wavelengths has allowed classification into six sub-types ; however , individuals may respond to more than one portion of the light spectrum . In type I , elicited by wavelengths of 285 to 320 nm , and in type IV , elicited by wavelengths of 400 to 500 nm , the responses have been passively transferred with serum , which suggests a role for IgE antibody . In type I , the wavelengths responsible are blocked by window glass ⁵³. Type VI , which is identical to erythropoietic protoporphyria , is due to ferrochelatase (heme synthase) deficiency⁵⁴ .There is evidence that an antigen on skin may become evident once the skin is irradiated with the appropriate wavelength of light , followed by complement activation and release of C5a^{55,56} .

3.4.3.1.9 Aquagenic urticaria:

Contact with water at any temperature induces an eruption resembling cholinergic urticaria, although the weals are few in number and are surrounded by a wide flare ⁵⁷.

3.4.3.1.10 Contact urticaria :

Contact urticaria is quite common, but is not usually a cause of hospital referral unless there is an occupational problem, for instance latex allergy due to glove use. The term simply means urticaria resulting from skin or mucosal contact with the provoking substance. It may be allergic or non-allergic (also called immunological and non-immunological) ¹⁸.

Allergic: Percutaneous or mucosal penetration of an allergen to which the individual has already developed specific IgE will result in a type I hypersensitivity response involving mast cell degranulation with histamine release. Weals occur at sites of contact with the allergen, usually therefore on the hands and face. The commonest causes are foods (for example, nuts, fish, fruits) or latex. Diagnosis can be confirmed by RAST ⁵⁸.

Oral allergy syndrome: This is a form of allergic contact urticaria involving the mouth, characterized by immediate itching, swelling and burning after eating a wide range of fresh fruits and nuts, including apple, pears, cherries, plums and hazelnuts ⁵⁹.

Non-allergic: This form of contact urticaria may be caused by direct injection of vasoactive chemicals by plants (e.g. nettles) or animals (e.g. caterpillars, jellyfish). A more common form, usually results from exposure to cosmetics (e.g. cinnamic aldehyde, balsam of Peru) or food additives (e.g. sorbic acid or benzoic acid).

3.4.4 Angio-oedema :

Ordinary angio-oedema syn .(angioneurotic oedema; Quincke's oedema): This is a variant of urticaria in which the subcutaneous tissues, rather than the dermis, are mainly involved. The same multiple aetiology and frequent lack of precise diagnosis are found as in chronic ordinary urticaria ^{60,61}. However, both hereditary angio-oedema and the angio-oedema associated with ACEIs cause swellings without weals, suggesting that the mechanisms may not be identical for ordinary urticaria with angiooedema and angio-oedema without weals. Almost any part of the body may be involved, but the commonest sites are the lips, eyelids and genitalia. The tongue and pharynx may also be affected. Individual lesions may be single or multiple and may appear with dramatic suddenness. Itching is usually absent. The lesions last for a few hours, or occasionally persist for 2–3 days ⁶².

3.4.4.1 Hereditary angio-oedema :

This is a rare disorder, accounting for only 5% of all cases of angio-oedema without weals and only about 1% of all cases of angio-oedema. It is transmitted as an autosomal dominant trait on chromosome 11⁶³. The blood of these patients is deficient in a natural inhibitor of C1 esterase, which is made in the liver under genetic control ⁶⁴. It seems to require the activity of both alleles to maintain normal levels. The inhibitor is present either in reduced amounts (type I) or in 15% of affected families, in an inactive form, although it can be detected in normal amounts immunologically (type II). A third type of hereditary angio-oedema has been proposed recently (type III), limited to

women with a family history of recurrent angio-oedema, including swellings of the upper airway, but with normal levels of plasma C1 esterase inhibitor and C4⁶⁵.

3.4.5 Systemic urticarial syndromes:

There are a number of systemic disorders that can manifest with urticarial skin lesions, including urticarial vasculitis, connective tissue diseases, hematologic diseases, and autoinflammatory syndromes. All of these conditions may enter into the differential diagnosis of ordinary urticaria. In contrast to urticaria, urticarial syndromes may manifest with skin lesions other than weals, such as papules, necrosis, vesicles, and hemorrhages. Lesions may have a bilateral and symmetrical distribution; individual lesions have a long duration, and their resolution frequently leaves marks, such as hyperpigmentation or bruising. Moreover, systemic symptoms, such as fever, asthenia, and arthralgia, may be present. The most important differential diagnosis in this group is urticarial vasculitis, which is a small-vessel vasculitis with predominant cutaneous involvement. Systemic involvement in urticarial vasculitis affects multiple organs (mainly joints, the lungs, and the kidneys) and is more frequent and more severe in patients with hypocomplementemia. Clinicopathologic correlation is essential to establishing a correct diagnosis.

Systemic urticarial syndromes include other vasculitides (ChurgeStrauss syndrome and polyarteritis nodosa), neutrophilic urticarial dermatosis, hematologic diseases (Schnitzler syndrome, Waldenstrom macroglobulinemia, and hypereosinophilic syndromes), and autoinflammatory diseases. Urticarial

vasulitis is characterized by exacerbations and remissions. The duration of urticarial vasulitis tends to be limited to several Months ⁶⁶.

3.5 Diagnosis:

Information should be obtained regarding the onset, duration and course of the disease. The duration of individual weals and presence of purpura are important. Weals lasting more than 24–48 h, particularly if painful or tender, suggest the possibility of urticarial vasculitis or delayed pressure urticaria, but can occur in ordinary urticaria.

The location, numbers and shapes of weals vary and are usually not helpful in differentiating most urticarias, except for the typical small, monomorphic, short-lasting weals of cholinergic urticaria and the linear weals of dermographism. The presence of any angio-oedema, particularly if it has affected the oropharynx with difficulty in swallowing or breathing, should be noted. Enquiry should be made for systemic symptoms sometimes associated with cutaneous lesions, including malaise, headache, abdominal pain, arthralgia, wheezing and syncope. Possible precipitating or aggravating factors including physical factors such as heat, cold, localized pressure on the skin, friction and sunlight should be sought directly. It is important to enquire regarding any association with recent acute infection, drugs, non prescription medicines and foods, although the latter are rarely a cause for chronic urticaria. A family history of atopy, autoimmunity or angio-oedema may be useful information.

3.6 Investigations:

Differential full blood count and erythrocyte count . erythrocyte sedimentation rate (ESR) suggests the possibility of an underlying systemic disease (lupus erythematosus, urticarial vasculitis, macroglobulinaemia). Eosinophilia would prompt a search for parasitic disease.

Screening tests for thyroid autoantibodies may be worthwhile, as up to 14% of patients with chronic urticaria may have thyroid autoimmunity and initial reports suggest that treatment with thyroxine to suppress thyroid activity may resolve the urticaria .

Further tests depend on history, and routine biochemistry, complement levels, serum proteins and electrophoresis, serum immunoglobulins, non-organ-specific and organ-specific autoantibodies, total IgE and RASTs tests. Skin-prick or intradermal tests are even less helpful, and there were no relevant unsuspected positive tests in a group of urticaria patients. In addition, a positive skin test is difficult to interpret, as an atopic patient with urticaria will show many irrelevant positive results, and false-negative results may also occur. Although a few patients with chronic urticaria and a positive intradermal test to *Candida albicans* were helped by an anti-Candida/ antiyeast regimen.

If angio-oedema is a major component of the disease, screening tests for hereditary or acquired C1 esterase inhibitor deficiency should be performed by measuring plasma complement C4. Skin biopsy may be helpful if the weals

persist for more than 48 h and do not respond to antihistamines. Urticarial vasculitis or delayed pressure urticaria is then suspected.

3.7 Treatment :

Drug therapies can be first-, second or third-line, the choice of treatment depending upon the response to previous measures⁶⁷ and the impairment of quality of life for the patient.

First-line therapies

H1 antihistamines are the first-line treatment of urticaria. They are usually modifications of the histamine molecule with which they compete and block the H1 receptor. Generally H1 antihistamines are rapidly absorbed, reaching peak serum concentrations in 2 h.

The use of traditional classic antihistamines has been limited by their side effects, including sedation, anticholinergic properties and paradoxical excitation in children. However, they are useful if night-time sedation is required. Hydroxyzine is the most potent of the classic antihistamines. Doxepin, a tricyclic antidepressant with potent antihistaminic activity, in a starting dose of 10–30 mg, is useful for the anxious patient at night.

The second generation of potent, specific, low-sedation H1 antihistamines is now the treatment of choice⁶⁸, Their main advantage is low sedation at doses recommended, and minimal anticholinergic side effects. These drugs as; Loratadine (adult dose 10 mg daily) is a derivative of azatadine , Cetirizine (adult dose 10 mg/day) which reduces dermal eosinophil cell accumulation in

vitro and in vivo. However, the clinical importance of this effect in the treatment of delayed pressure urticaria and urticarial vasculitis, where eosinophils may be an important component of the inflammatory cell infiltrate, is uncertain. The active enantiomer, levocetirizine, has recently been launched.

Antihistamines cross the placenta. There is no reliable evidence that they are teratogenic, but they should be avoided in pregnancy and particularly in the first trimester if possible. If it is not possible, then chlorpheniramine appears to be the least risky to use⁶⁸.

A combination of an H1 antagonist with an H2 antagonist may be more effective than H1 antihistamines alone in an unpredictable subgroup of patients. Use of ranitidine (adults 150 mg twice a day) is preferable to cimetidine, which has more antiandrogenic side effects and drug interactions.

Second-line therapies

Oral systemic corticosteroids are effective in severe urticaria when given in higher doses such as 0.5–1.0 mg prednisolone/kg/day. Although short courses are useful for acute exacerbations, prolonged use should be avoided because of the risk of side effects. Oral corticosteroids are often required for disease control in severe delayed pressure urticaria and urticarial vasculitis, but every attempt should be made to minimize the dose and duration⁶⁹.

The emergency treatment for non-hereditary angiooedema causing respiratory embarrassment from oropharyngeal– laryngeal angio-oedema is epinephrine. It acts rapidly by vasoconstriction and stabilizing mast cells

through β -adrenoceptor stimulation. For severe reactions particularly of the anaphylactic type, epinephrine must be injected intramuscularly or subcutaneously.

Treatment should be repeated if there is no improvement after 10–15min. Patients who have had a severe reaction should be shown how to self administer epinephrine and should keep two unexpired ampoules or ‘pens’ available.

Third-line therapies

For patients with severe, unremitting urticaria not responding to conventional therapy, immunomodulatory strategies have been tested in small, uncontrolled trials. Plasmapheresis improved six out of eight such patients with autoimmune urticaria for 3–8 weeks only⁷⁰. Intravenous immunoglobulin (IVIG) infusions, at 0.4 g/kg/ day for 5days, improved nine out of 10 patients, two of whom remained clear for 2 years⁷¹. Ciclosporin A at 2.5–3.5 mg/kg/day for 1–3 months improved or temporarily cleared the majority of patients with severe urticaria and its efficacy has been confirmed in a randomized placebo controlled study at 4 mg/kg/day for 4 weeks⁷².

3.8 Quality of life:

3.8.1 Definition of quality of life :

QOL is defined as the difference , or the gap , at a particular of time between the hopes and expectations of the individual and that individual’s present experiences . However , it is important to be aware that each individual is

different ; two people affected by the same disease in an identical distribution may experience different effects on their QOL ⁷³.

Impact of skin diseases on affected individual :

There are no cures for many skin diseases .The aim of treatment of these conditions is to control the disease process , and to improve the QOL of the patient . Some diseases , can trouble the individual for most of their lifetime . These chronic inflammatory skin diseases can affect every aspect of a person`s life . In addition there is morbidity from symptoms , from the appearance of the condition and the treatments themselves can cause an additional burden .

Symptoms of skin diseases are often underestimated. Itching can be very distressing and disruptive to everyday life . This may affect an adult with their occupation .

Physical , Although the extent of the area affected may not always distress a patient , the site of the skin affected may cause great distress and disability ,for example , skin lesion affecting the back of a person may be less distressing than that affecting more exposed part of the body such as the hands or face may cause great disability by interfering with activities of daily living .

Psychological , Skin diseases can cause great psychological distress in affected individuals . Patients may feel embarrassed, angry and frustrated about their skin disease. A person`s ability to develop relationships may be affected .

Social , **sports** and **work** . Through ignorance and lack of understanding . society frequently stigmatizes and rejects people with skin diseases . The use of

common leisure and sports facilities may not be possible , as a patient with a skin disease harmless to others and may be mistaken for having an infectious disease. The patients themselves might isolate themselves due to their embarrassment . People may loose their jobs or have to change careers due to their skin disease . Certain types of occupations can cause or aggravate existing skin diseases , for example work-related contact urticaria commonly seen in hairdressers , caterers and people handing chemical products . Skin disease can therefore impact on the earning capacity of the individual and economy of the society .

3.8.2 Assessment of quality of life :

The main aim of health care professionals caring for people with skin disease is to cure or suppress the disease ⁷⁴.

3.8.3 Health service research and audit :

It is important to produce evidence of the effectiveness of care given , and to be able to monitor improvement against agreed . Validated QOL measures are ideal for this purpose . Studies have shown that QOL of patients with skin diseases improves following dermatology services such as outpatient consultation ⁷⁵ , admission to hospital for control of their disease ⁷⁶ or following these measures can also give insight into the acceptability of new methods of providing dermatology advice such teledermatology ⁷⁷.

3.8.4 Dermatology specific measures :

Are used to compare the impact of different diseases or to measure the impact of one skin disease before and after an intervention . A widely used , validated dermatology specific measure is the Dermatology Life Quality Index (DLQI) ^{78,79} . This consists of 10 questions addressing the many aspects of life that can be affected by skin disease . These include symptoms , embarrassment , interference with shopping or housework , clothes , social or leisure activities , sports , work or studying personal and sexual relationships and the treatment itself . Each question is answered by selecting and ticking a box that best describes the impact of the skin disease on that aspect of the individual's QOL, the answer to each question is scored 0 (no effect on QOL at all) and scored 3 (very much affects the QOL) ^{79,80} .

As would be expected , there is often an overall relationship between the clinical severity of skin diseases and its impact on the QOL of affected people . Chronic idiopathic urticaria (CIU) is a relatively common disease, and yet not much is known about the causative factors or its pathophysiologic mechanisms, which makes it difficult to cure. It is predominantly affects adults, and remains a major problem in terms of etiology, investigation, and management. Due to its chronic nature, many patients suffer from significant detrimental effects on their QOL, and experience symptoms of depression or anxiety⁸¹. CIU can interfere with subjective well-being and daily life, yet evaluation of the disease has focused on clinical symptoms only. Treatment is often focused on skin symptoms rather than the effects of these symptoms on the individual's QOL,

which often leads to unsatisfactory management of the disease⁸². Chronic urticaria is an often disabling condition which can prevent patient to perform daily activities. The Dermatology Life Quality Index questionnaire is designed for use in adults, i.e., patients over the age of 16. It is self-explanatory and can be simply handed to the patient who is asked to fill it in without the need for detailed explanation. Godse KV had studied, Fifty adult patients (age group 18-80, Mean age 43 years, Male to Female ratio 33:17) with chronic urticaria. More than 75% of the patients had a DLQI score of (10) or lower, out of a maximum score of (30). 66% were male, opposite to the sample of Finlay and Khan⁷⁸. The overall mean score was 6.5 in Finlay and Khan study and 7.16 in Godse KV study. Although most skin conditions are not life threatening, they can strongly affect how patients perceive and interact with their environment, giving such diseases the potential to alter every aspect of a patient's life. Chronic idiopathic urticaria (CIU) is a debilitating skin disease that affects patients' quality of life (QOL). However, an evaluation of the validity of the DLQI for use in CIU patients has not been undertaken, because CIU, unlike other chronic skin conditions, is subjected to daily or weekly symptom fluctuations.⁸³ Few articles are available about chronic urticaria (CU) impact on patient's quality of life (QOL). There are no studies from India on this subject.⁸⁴ Using the QOL Nottingham Health Profile, O'Donnell and Greaves showed that the QOL handicap in CU and in patients with triple coronary heart disease was equivalent.⁸⁵ In further studies, Poon E *et al* showed that patients suffered serious impairment of sexual relationships due to CU, and

its treatment.⁸⁶ Similarly patients with urticaria and angioedema did not report poorer quality of life than those with urticaria alone⁸⁷ . Another survey demonstrated significantly poorer self-assessed quality of life among patients with chronic urticaria when compared with that patients with respiratory allergies.⁸⁸ Quality of life in urticaria patients can be improved by using newer generation of non sedating antihistaminics and use of immunosuppressants like cyclosporine and methotrexate⁸⁷ in patients with positive autologous serum skin test in whom traditional antihistaminics do not give adequate control of disease.

4 . Aim of the study

Dermatologists have always, presumably been aware of the devastating effect that skin disease can have upon the lives of their patients, but historically most publications have focused on the pathology of the skin rather than on the subsequent effect on the patient .

Up to now , attempts at defining disease activity in dermatology have focused on formulae for the quantification of signs and symptoms. It is now becoming accepted that from the patients' viewpoint ,the impact on QOL is of equal importance to the level of disease activity, and QOL measures have the potential to allow integration of assessment of QOL into standard assessment protocols defining disease activity⁸⁹.

Chronic urticaria is a common skin problem and it may lead to disability that interfere with patients daily activities and has a great impact on their quality of life.

The aim of this study is:

- 1). To study the epidemiology and etiologic factors of chronic urticaria in Libyan patients .
- 2). To estimate the quality of life index and assess the impact of the disease on the patient's life.
- 3). To determine the relationship between quality of life index and disease epidemiology including patient age , sex and the disease duration and severity.

5 . Materials and methods

Fifty Libyan patients aged above 16 years with the clinical diagnosis of chronic urticaria attending dermatology department, Al Jamhoria hospital ,Benghazi – Libya, between March 2010 – January 2011 , were included in this study.

Each patient will be exposed to detailed disease history including etiological factors, disease presentation, severity and complete dermatological examination according to the prepared proforma.

Each patient was interviewed to fill and answer the questions of quality of life index questionnaire.

The questions were classified to 6 headings items: symptoms and feelings (questions 1 and 2), daily activities (questions 3 and 4), leisure (questions 5 and 6) and personal relationships (questions 8 and 9) each item with maximum score 6; work and school (question 7), and treatment (question 10) each item with maximum score 3 .

The Dermatology Life Quality Index questionnaire(DLQI) is designed for use in adults ,i .e Male and female subjects with the diagnosis of urticaria aged > 16 years with the appearance of wheals for at least 3 days per week for six consecutive weeks or more⁷⁸ .

The scoring of each question is as follows:

Very much	scored 3
A lot	scored 2
A little	scored 1
Not at all	scored 0
Not relevant	scored 0
Question unanswered	scored 0

Question 7: " prevented work or studying " scored 3

The DLQI is calculated by summing the score of each question resulting in a maximum of 30 and a minimum of 0. The higher the score ,the more quality of life is impaired . The DLQI can also be expressed as a percentage of the maximum possible score of 30⁷⁸.

Meaning of DLQI scores:

0-1= no effect at all on patient's life .

2-5= small effect on patient's life

6-10= moderate effect on patient's life

11-20= very large effect on patient's life

21-30= extremely large effect on patient's life

The data were collected and fulfilled according to aprepared proforma .

When data were ready they were collected in one book then entered on SPSS (version 12) software and were analyzed by using t-test , and chi – square tests (fisher exact test or likelihood ratio when chi square test was not applicable).

6 . Results:

Among 50 patients with the clinical diagnosis of chronic urticaria were included in this study , 41 patients (82%) were females and 9 patients (18%) were males .The patient age range from 17-60 years (mean 36.8years) and most of cases of chronic urticaria were of age group 31-40 year and presented in (32%) , followed by age group 21- 30 year and presented in (28%) of the patients (Fig. 1), and in majority of our patients the education level is not high (70%) .

The study show that (66%) of our patients were married , whereas (30%) of them were single (Fig .2) . and majority of our patients 28 were house wives (56 %) (Fig.3).

History of angioedema is recorded in only 14 patients (28%) .

Only 9 cases (18%) of our patients related their urticaria to drugs including a spirin , paracetamol , and ibuprofen (Tab . 1) and in 41 patients (82%) there is no relation to food while others related to some food including tuna , milk and banana (Tab.2) .

In figure .4 stress was aggregating factor in (60%) of patients. while the exposure to sun & hotness was described as aggregating factor in (32%) (Fig.5) .

H . pylori was positive in only 4 patients (8%) and positive family history of urticaria was recorded in only 2 cases (4%) .

One or more systemic illness associated with urticaria were present in 16 patients (32%) (Fig. 6). Hypertension was seen in 5 patients (10%), allergic disorder in 6 patients (12%) and diabetis milletus in only 2 patients, (Tab .3).

The duration of disease range from 1.5 – 240 months (mean 40 months) . The dermatological quality of life score was ranging from 5-26 (mean score was 19) ,and majorty of them (96%) have a very large or extreme effect on their life quality .(Fig . 7).

The mean score of QLI was almost equal in both males & and females .

It was clear that symptoms and feelings are the most affected part of quality of life assessed by quality of life index, followed by work and school.(Fig . 8).

In our study there was no statistically significant relationship in patients with chronic unticria between the dermatology quality of life score and gender , age, duration of illness and marital status of the patients ($P < 0.405$, $P < 0.66$, $P > 0.092$ and $P < 0.075$ respectively) ,(Tab .4,5,6).

Also the relationship between the occupation , education of patient and the patient life quality was not statistically significant ($p < 0.827$, $p < 0.467$ respectively) , (Tab .7, 8).

There was no much difference in the quality of life scores in patients of chronic urticaria with angioedema and without angioedema (p value is < 0.580), (Tab.9) .

The presence of any aggravating factor in our study showed a significant effect on the scores of quality of life in our patients ($p < 0.013$) (Fig . 9).

Regarding the individual aggravating factors there was no statistical difference relation between the QL scores , these factors like food , drugs , sun or hotness and stress , also there is no statistical significance relation between QL score and family history.

Table1: Drugs related to urticaria

Drug(s)	Frequency	Percent
Aspirin	4	8.0
Aspirin and paracetamol	1	2.0
Enalapril	1	2.0
Ibuprofen	2	4.0
Paracetamol	1	2.0
No drugs involved	41	82.0
Total	50	100.0

Table 2: Foods related to urticaria

Food(s)	Frequency	Percent
Banana	1	2.0
Banana and Milk	1	2.0
Mango juice	1	2.0
Milk	1	2.0
Multiple foods	1	2.0
Tuna	1	2.0
Tuna and Egg	3	6.0
No food involved	41	82.0
Total	50	100.0

Table 3 : Frequency of associated illness

Associated illness	Frequency	Percent
Hypertension	5	10%
Allergic disorder	6	12%
Gastrointestinal disorder	4	8%
D.M	2	4%

Table 4: Mean scores of life quality in relation to patient Gender

Gender of the case	Frequency	Mean	Std. Deviation
Male	9	18.00	3.162
Female	41	19.22	4.084

Table 5 :Mean scores of quality of life in relation to patient age and duration of illness

Variable	Minimum	Maximum	Mean	Std. Deviation
Age of the patient	17	60	36.78	11.701
Duration of illness in months	1.5	240.0	40.610	63.9345
Score of dermatology life quality index	5	26	19.00	3.933

Table 6 : Mean scores of quality of life score and marital status

Marital Status	Frequency	Mean	Std. Deviation
Not married	17	17.94	1.345
Married	33	19.55	4.678

Table 7 : Mean scores of quality of life score and occupation .

Job	Frequency	Mean	Std. Deviation
Home Resident	31	18.90	4.490
Outdoor activity	19	19.16	2.911

Table 8 : Quality of life score in relation to education

Educational level	Descriptive of the Score of dermatology life quality index				
	Number	Minimum	Maximum	Mean	Std. Deviation
No educational level	8	5	26	18.13	7.827
Not High Level	35	12	25	19.03	2.823
High Education	7	16	24	19.86	2.795

Table 9 : Mean scores of quality of life in relation to angioedema

History of angioedema	Frequency	Mean	Std. Deviation
No angioedema	14	18.50	5.446
There is angioedema	36	19.19	3.241

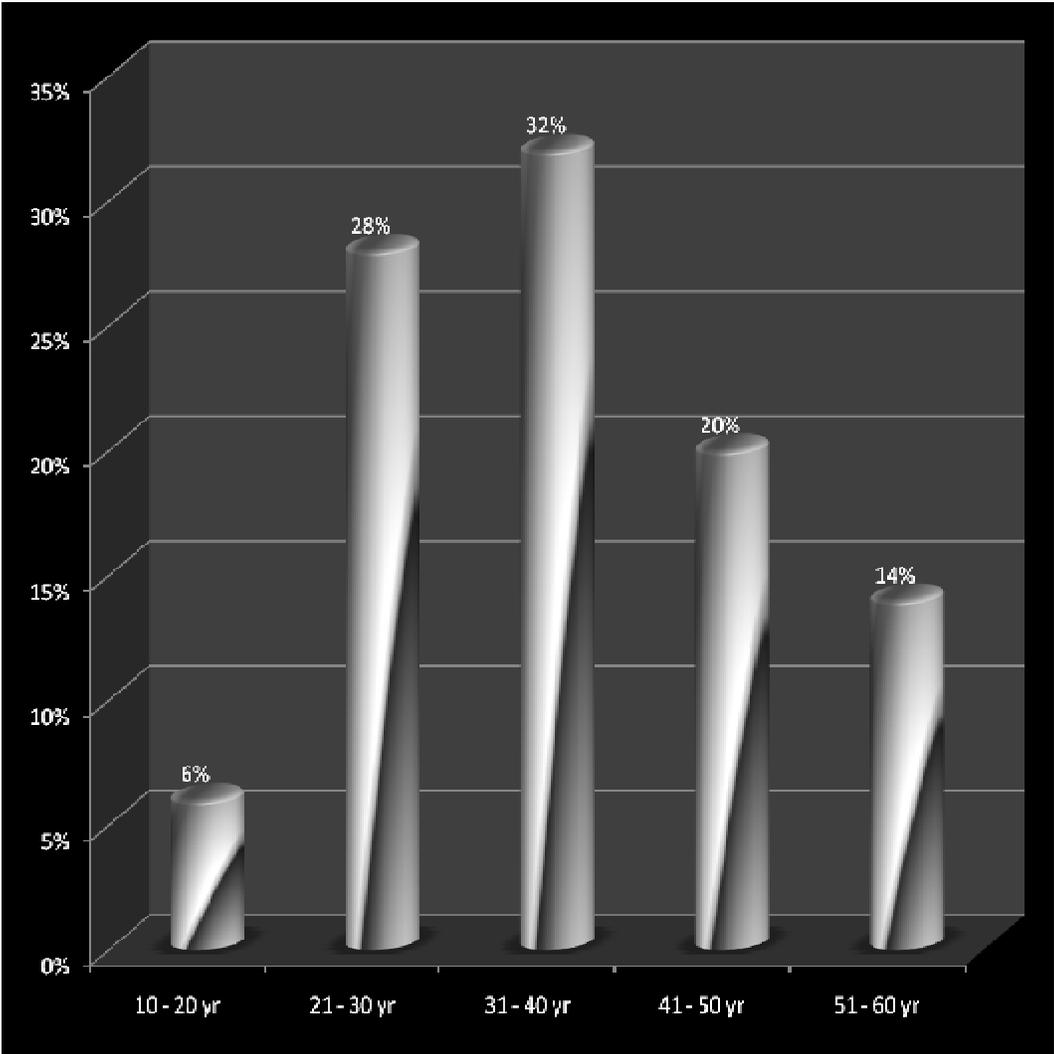


Figure (1): Distribution of study population on age groups - percentages

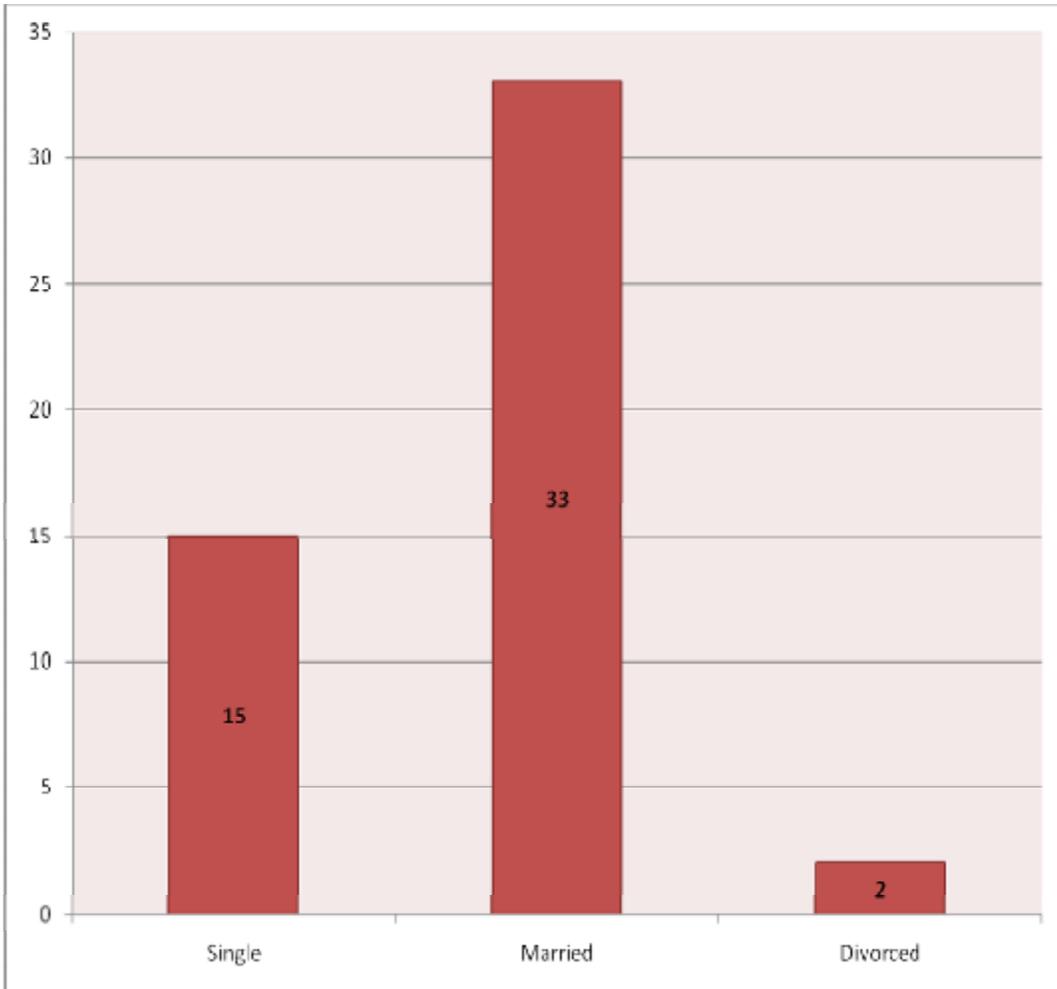


Figure (2) Distribution of marital status of study sample

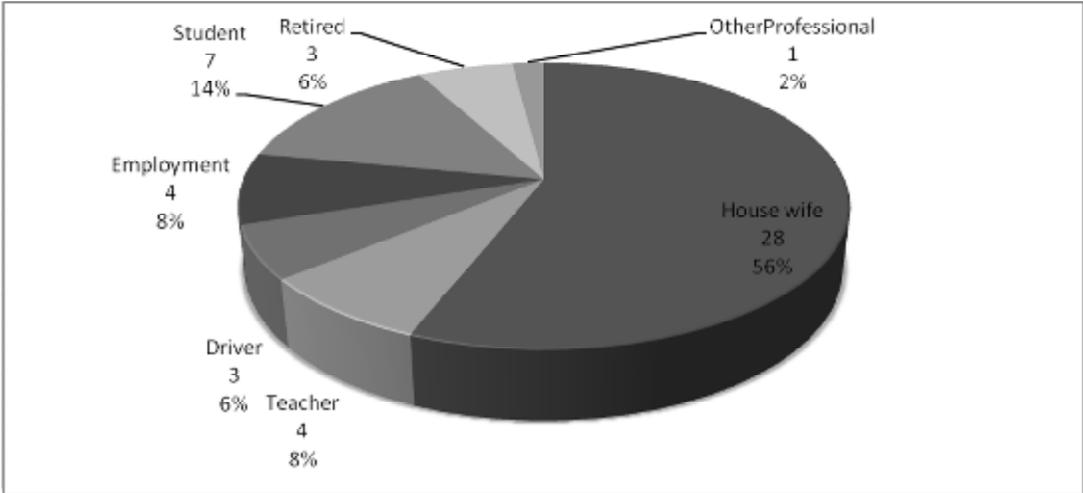


Figure (3) Distribution of jobs of study sample

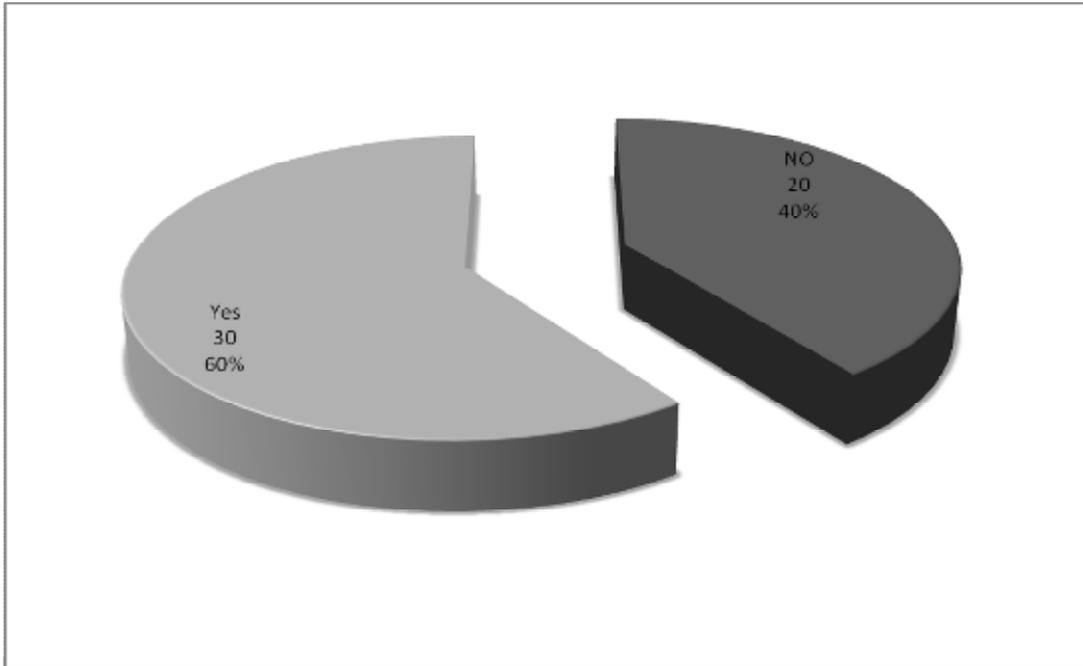


Figure (4) Occurrence of stress as an aggravating factor in the study sample

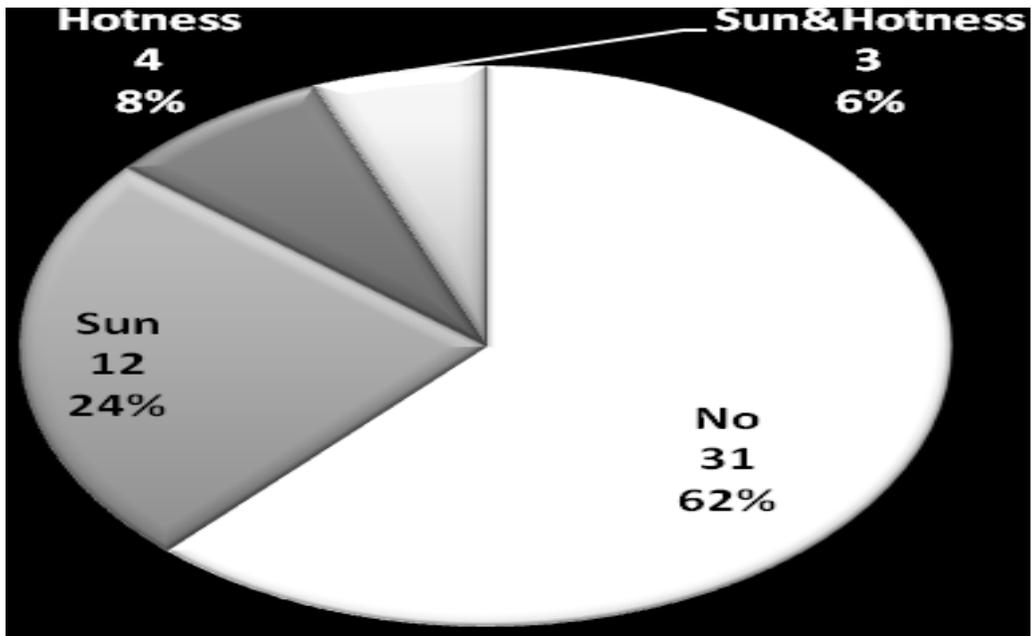


Figure (5) Occurrence of sun or hotness as an aggravating factor in the study sample

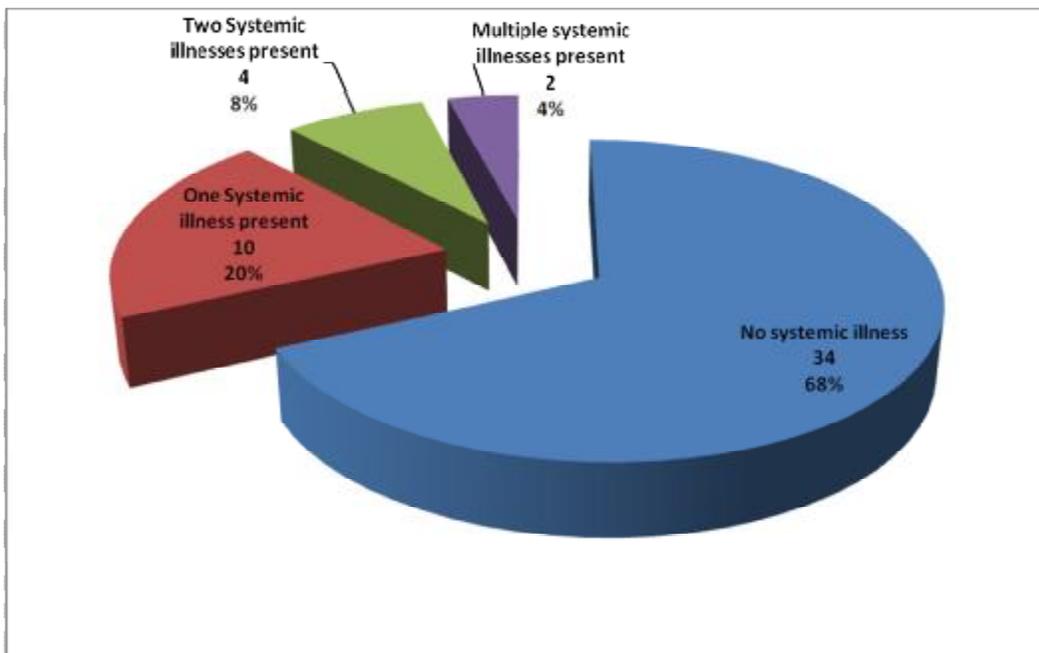


Figure (6) Systemic illnesses coexisting in the study sample

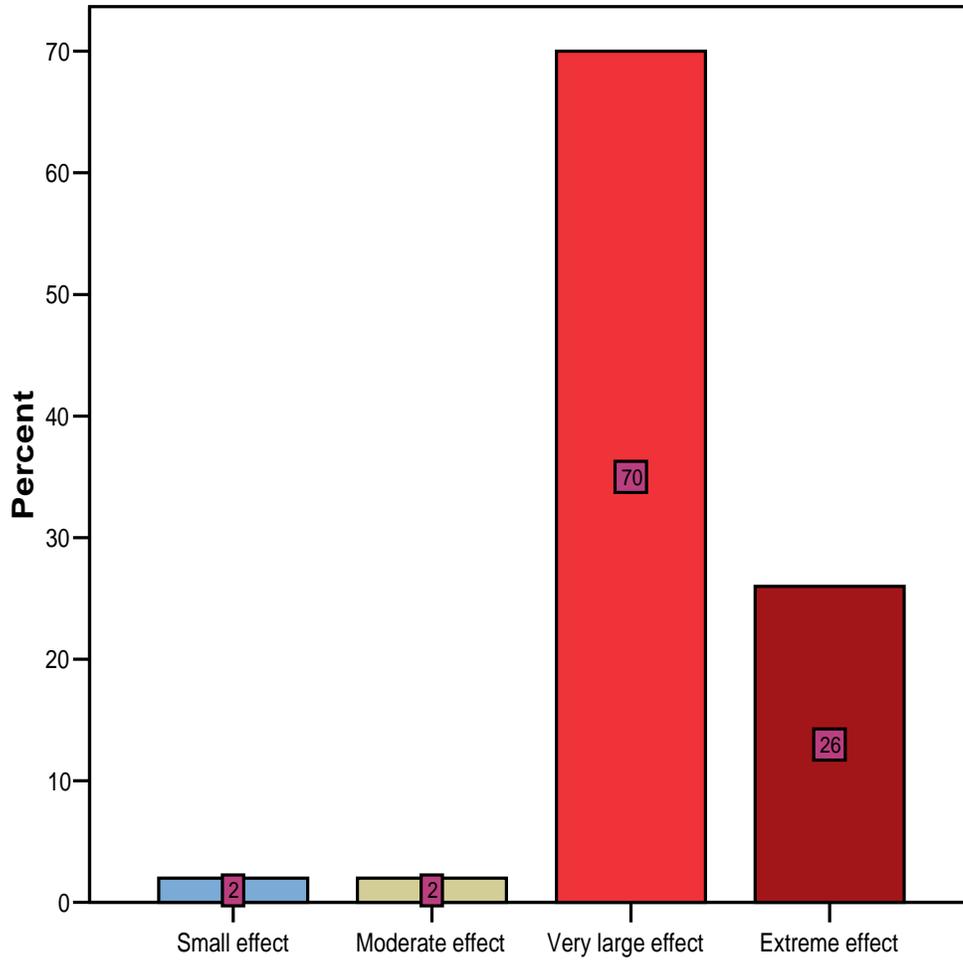
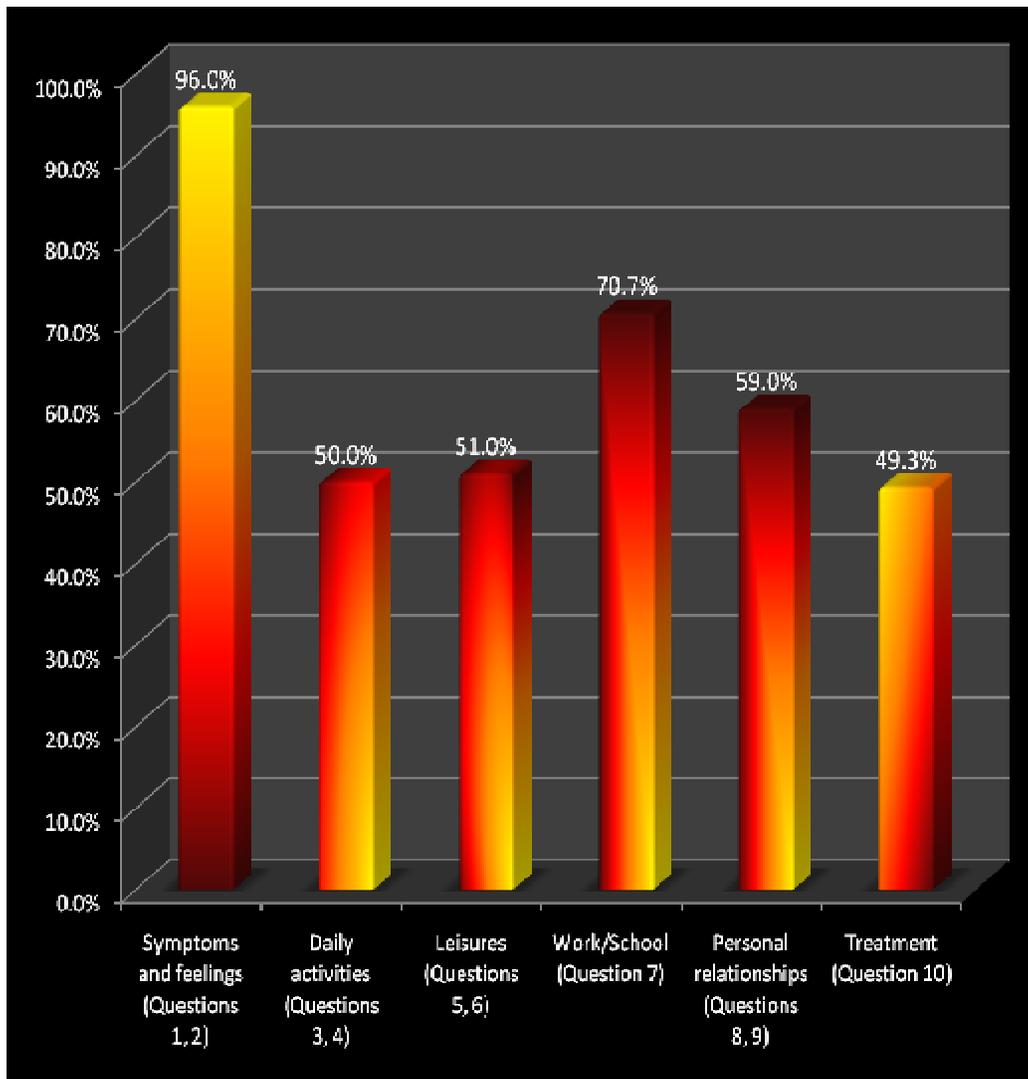


figure (7) Means of score of dermatology life quality in groups based on presence of any aggravating factor.



Figures (8): Proportions of score summations individualized for different areas of life quality affected

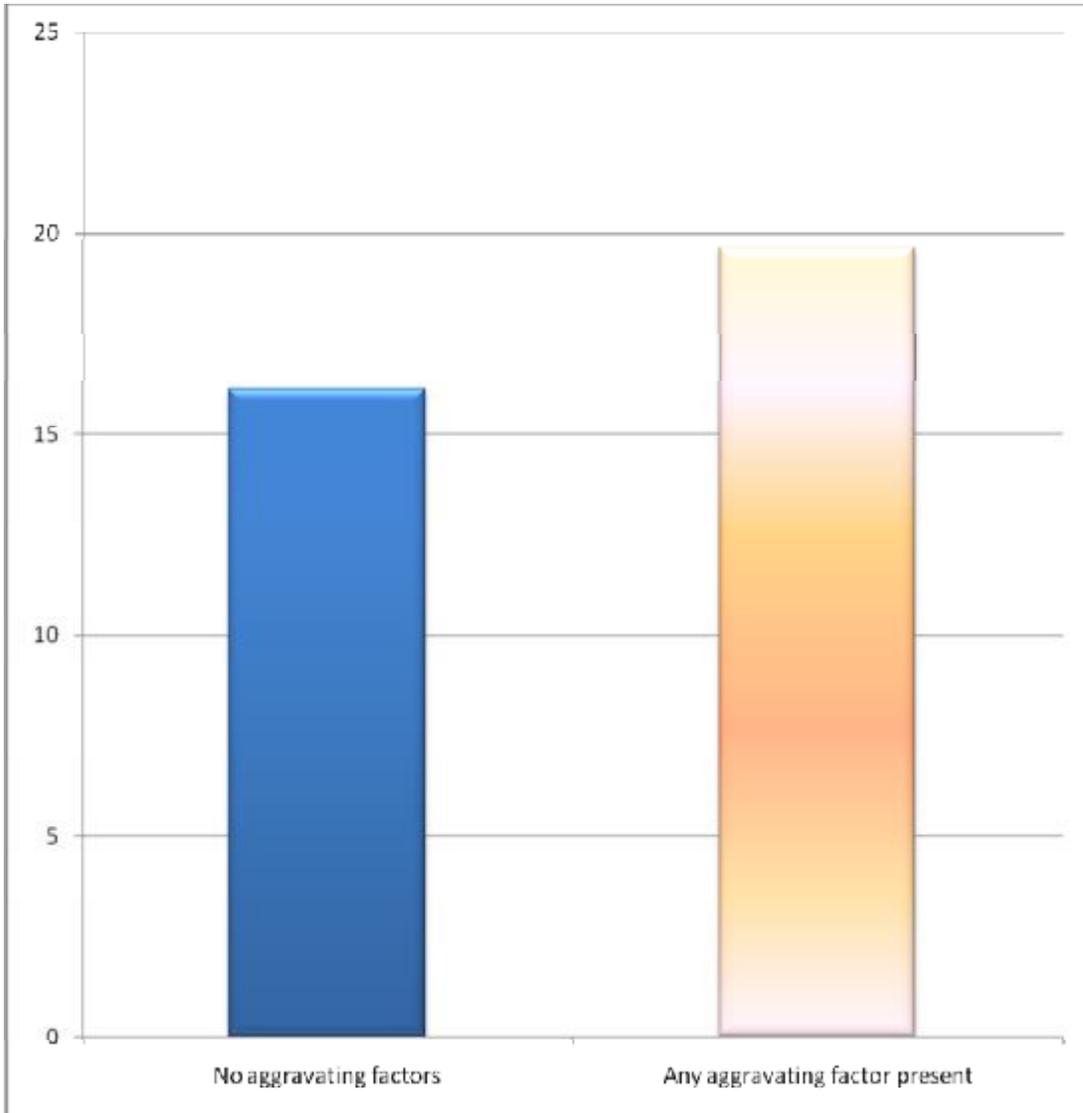


Figure (9) Distribution of study cases in categories of life quality index score

7 . Discussion

Chronic urticaria is a skin disorder characterized by erythematous weals, intense itching with or without angiodema . It remains a big problem in terms of activity , pathogenic mechanism and pharmacologic treatment.

It may possible to assign a specific etiology to individual cases of urticaria but many cases remain unexplained .

Among our patients in this study, the mean age of studied patients was 36.8 years which was similar to the results of study carried on Korean patients (37.3 years) and lower in comparison to Indian data (43 years)^{78,82}.

Concerning the patient sex , our study showed a higher percentage of female patients (82 %) and this show similarity to results of study carried by Finlay and Khan⁸³ , and was a relatively opposite to the sample of Godse KV study that showed males are more and represent (66%) of their patients.

More than (50%) of our patients were housewives and (66%) of them were married and the education level is not high.

In relation to the duration of disease , our study pointed out that it was ranging from 1.5 – 240 months with mean of 40 months, Kang MJ reported in his study sample that the average duration of disease was 18.6 months⁸².

Although angiodema may associated in 50% of ordinary urticaria cases , our data showed that 28% of patients were presenting with angiodema .

Degradation of mast cells and basophils can occur without involvement of IgE receptors after exposure to certain drugs (e.g codeine). The mechanism by which aspirin, non steroidal anti-inflammatory drugs and dietary pseudoallergens (such as salicylates, azo dyes and food preservatives) cause or aggravate urticaria remains uncertain but may involve leukotriene formation. In this study, history of 9 patients (18%) had related their urticaria to drugs including aspirin , paracetamol and ibuprofen and food including tuna, milk and banana.

Stress has been reported as an important aggravating factor of urticaria in our study and was seen in (60%) of our patients.

Association between chronic urticaria and occult infections (e.g dental abscess, and gastrointestinal candidiasis) have been proposed but there is a little evidence to support them. Thyroid autoimmunity in chronic urticaria is more prevalent than population control(14% vs 6%). In our study one or more systemic illness associated with chronic urticaria is recorded in 16 patients (32%) including hypertension, diabetes mellitus and allergic disorders..

Although, the role of Helicobacter in chronic urticaria is currently being investigated , in our study it is reported in only 4 patients (8%).

There have been numerous studies on impact on chronic urticaria on quality of life, it is important to note that all studies done so far show that the overall impact of the disease on QOL is substantial. O`Donnell et.al studied 142 patients with chronic idiopathic urticaria using QOL instrument and compared

them to 98 patients with coronary artery disease and upon evaluation , the scores for energy, social isolation and emotional reactions were similar in both groups and the degree of QOL impairment in chronic idiopathic urticaria is comparable to that of coronary artery disease ⁸⁵ .

In this study, all the studied patients have been interviewed and answered the questionnaire and the dermatology quality of life score was ranging from 5 – 26 with mean score of 19. This score is considered high if compared to other studies where the overall average score of their patients was 6.5, 7.16 and 8.5^{78,82} .

Godse KV in his study on 50 Indian patients showed that scoring up to 23 of 30 and 75% of their patients had DLQI score of less 10 or lower, out of a maximum score of 30 and in another study (65 %) were of moderate group whereas (30.7 %) were of severe group⁸² .

Almost more than 90% of our study sample have large or extreme effect of the disease on patient life. A study by Poon et . al showed that chronic idiopathic urticaria subjects with concurrent pressure urticaria and cholinergic urticaria showed the greater QOL impairment. Also Kang MJ found a significant and detrimental effect of the physical component on daily life activities and social function ⁸². Another study by O`Donnell and Greaves showed that QOL handicap in chronic urticaria and inpatients with triple coronary artery disease was equivalent⁸⁵. Other authors conclude that QOL impairment in chronic idiopathic urticaria patients is similar to acne vulgaris

and higher in vitiligo⁸⁶. and some survey demonstrated a poorer assessment when compared with respiratory allergies⁸⁸.

Symptoms and feelings are the most affected part assessed in our patients followed by work and school whereas others showed that symptoms have been underestimated ,also they have found more significant effect on physical component on daily activities and social function.

The present study does not show any significant relationship between QOL scores and the duration of the disease which is not consistent with other results which pointed out that the longer duration of the disease lasted, the more treatment induced restriction were placed upon patient. Also disease severity had significant effect on QOL categories associated with outward appearance or social activities⁸². Poon et .al showed that patients suffered serious impairment of sexual relationship due to chronic urticaria and its treatment⁸⁶. In the present study, some of the QOL categories were underestimated and the assessment could be less than expected due to fact that the questionnaire is not answered by the patient independently because the education level of majority of our patients is low in addition to that most of them are females and answering some of the questions specially that related to social activity and sexual activities through direct interview will not be clear and may be sometimes will not be answered.

Concerning association of urticaria and angiodema and its relation to QOL index scores, our study does not show any significant correlation with QOL

scores and this was similar with another study in which patients with urticaria and angioedema do not show any differences in QOL scores in patients with urticaria alone ⁸⁷ .

Measurement of QOL is becoming increasingly important for evaluating the overall effectiveness of therapy and the impact of the symptoms of chronic idiopathic urticaria on individuals. Grob et.al suggested that skin disorders can be characterized by specific QOL profile and profiles can be compared by dermatologists, helping them obtain a more objective view of QOL measurements ⁹⁰ .

Chronic urticaria is a common problem in skin departments and its impact on quality of life in Libya is not being studied and to the best of our knowledge this study is the first study to be carried out in our country.

Finally, although the Dermatology Life Quality Index questionnaire is designed for use in adults, self-explanatory and can be simply handed to the patient who asked to fill it without the need for explanation (it can be completed within 2-3 minutes). In our case and to study the QOL, we can only use and apply the translated form of the standard and original issue of Dermatology Life Quality Index questionnaire prepared by Finlay through patient interviewing but not that patient is filling the questionnaire independently, which may interfere socially and culturally with answering some categories of the QOL questionnaire specially that related to individual behavior and social activities.

Since QOL questionnaires may be appropriate for one culture setting but not valid in another. In our Libyan culture, further studies to assess the international QOL tools to evaluate the impact of common skin diseases including chronic urticaria on Libyan patient QOL and modify them according to our culture and social regulations and we might add other questions that can be considered an important measures in assessing the effect of the skin disease on our patient life e.g , Shaking hands, attendance of social activities like wedding or family or friends visiting and annoying questions asked by others about the disease, if it is infectious or not, especially for chronic type of skin diseases like chronic urticaria, psoriasis , alopecia or vitiligo.

8 . Conclusions

- 1- Chronic urticaria is a common disease and constitutes a major health problem in our dermatology department in terms of diagnosis, investigations and pharmacologic treatment.
- 2- In this study, majority of our patients were females and constitute (82%) of the cases , the average patient age was 36.8 years and the common age group was 31- 40 year.
- 3- More than (50%) of the patients were housewives, (66%) were married and (70%) the level of education was low.
- 4- Stress has been reported as an important aggravating factor (60%), drugs like aspirin, paracetamol and ibuprofen (18%), food like tuna, milk and banana, and Helicobacter was recorded in only (8%).
- 5- Dermatology quality of life index score was ranging from 5 – 26 (Mean 19) and more than (90 %) of our study sample have large or extreme effect on patient quality of life.
- 6- Symptoms and feelings are the most affected part assessed in our patients followed by work and school and there was no statistically significant correlation between QOL scores and disease duration, associated angiodema and disease severity.

9. Recommendations

- 1- Since chronic urticaria is a common dermatological problem in both dermatology departments in hospitals and outpatients dermatology clinics, more intensive teaching and training courses concerning disease management in both undergraduate and postgraduate levels are required.
- 2- Development of dermatology department and hospital laboratory in terms of diagnosis and management by providing them with recent and advanced equipments for virology, serology, immunology and allergic tests.
- 3- Further studies are required to assess the quality of life index in Libyan patients with chronic urticaria and other common dermatosis in order to evaluate the impact of these diseases on patient's life and effectiveness of therapy.
- 4- Assessment of the international QOL tools in Libyan patients with respect to add new measures or modify them according to our community and cultural needs and regulations.

ملخص البحث

جودة الحياة في مرض الشرى المزمن

المقدمة:

مرض الشرى المزمن لديه انتشار بمعدل (0.5%) إلى (3%) في عموم السكان، وهو نادر في الأطفال وعادة يبقى لمدة أشهر أو سنوات، مرض الشرى المزمن ليس له سبب واضح، بالرغم من أن بعض العوامل (مثل الأدوية، الخمج، الإجهاد، والطعام) يمكن أن تكون عامل مسبب .

المرض غالباً له تأثير عميق على جودة حياة المريض، لأن الحكمة الشديدة والأعراض الجلدية المصاحبة تتعارض مع النوم والعمل وكذلك الأنشطة اليومية الأخرى. تقييم التأثير لهذا المرض على جودة الحياة مهم جداً لمعرفة كيفية تأدية هذا المرض إلى الضعف والعجز الذي ممكن أن يؤدي إلى الإعاقة .

مبررات وأهداف البحث:

الغرض من هذه الدراسة هو تقييم تأثير مرض الشرى المزمن على حياة المريض في ليبيا وتحديد العلاقة بين مؤشر جودة الحياة ووبائية المرض.

طريقة البحث:

خمسون مريض لبيبي فوق 16 سنة لديهم مرض الشرى المزمن حضروا لقسم الأمراض الجلدية بمستشفى الجمهورية ببنغازي - ليبيا قد تم تدوينهم في هذه الدراسة . كل مريض خضع لتفاصيل تاريخ المرض مع فحص كامل للجلد وتمت المحادثة معه لتعبئة وإجابة أسئلة الاستبيان المعد لقياس جودة الحياة .

استبيان جودة الحياة الجلدي صُمم لاستخدامه للبالغين وتطبيقه على كل من الذكور والإناث مع ظهور طفح جلدي على الأقل 3 أيام كل أسبوع ولمدة ستة أسابيع متتالية أو أكثر. البيانات المدونة تم تحليلها إحصائياً بالبرنامج الإحصائي " SPSS " واختبار كاي تربيع " χ^2 " .

النتائج:

أظهرت نتائج الدراسة لعدد 50 مريض بأن 41 مريض (82%) إناث 9 مرضى ذكور (10%). . أعمار المرضى تتراوح من 17-60 سنة (المتوسط 36.8) ومعظم الحالات كانت بأعمار من 31-40 سنة (32%)، متبوعة بأعمار من 21-30 سنة (28%)، وأغلب الحالات (70%) كان المستوى التعليمي غير مرتفع .

الدراسة بينت أن (66%) من المرضى كانوا متزوجين، وأغلب المريضات كن ربات بيوت (56%). .

في معظم الحالات (82%) وُجد أن المرض ليس له علاقة بالطعام كعامل مسبب . أما بالنسبة للإجهاد كعامل مُهيج لمرض الشرى المزمن وُجد في (60%) من المرضى بينما التعرض للشمس والحرارة المباشرة كعامل مُهيج كان في (32%) من الحالات . البكتريا العسوية المعدية كانت إيجابية فقط في 4 مرضى (8%) بينما وجود نفس المرض في العائلة سُجل فقط في حالتين (4%). . مدة المرض تتراوح من 1.5 - 240 شهر (المتوسط 40 شهر) . معدل جودة الحياة الجلدي يتراوح من 5-26 (متوسط المعدل 19) وغالبية المرضى يعانون تأثير كبير على جودة حياتهم ومتوسط هذا التأثير كان متساوي في كل من الذكور والإناث.

لقد كان واضحاً أن الأعراض الجلدية والمشاعر الحسية كانت الجزء الأكبر المتأثر في جودة الحياة متبوعة بالعمل والدراسة .

التوصيات:

الشرى المزمن مرض شائع والإجهاد كان عامل مُهيج ومؤثر على المرضى كما أن هذا المرض له تأثير كبير على حياة المريض. أكثر من (90%) من مرضى هذه الدراسة تأثروا بشكل كبير وحاد في جودة حياتهم بينما الأعراض الجلدية والمشاعر الحسية كانت الجزء الأكبر المتأثر في هؤلاء المرضى متبوعة بالعمل والجانب الدراسي .

References:

1. Schocket AL. Chronic urticaria: pathophysiology and etiology, or the what and why. *Allergy Asthma Proc* 2006;27:90-5.
2. Zuberbier T, Maurer M. Urticaria: current opinions about etiology, diagnosis and therapy. *Acta Derm Venereol* 2007; 87:196-205.
3. Kukthanan K, Chiawsirikajorn Y, Jamton S. Acute urticaria: etiologies, clinical course and quality of life. *Asian Pac J Allergy Immunol* 2008; 26: 1-9.
4. Greaves M. Chronic urticaria. *J Allergy Clin Immunol* 2000;105: 664-72.
5. Kaplan AP, Greaves M. Pathogenesis of chronic urticaria. *Clin Exp Allergy* 2009;39:777-87.
6. Asero R, Riboldi P, Tedeschi A, Cugno M, Meroni P. Chronic urticaria: a disease at a crossroad between autoimmunity and coagulation. *Autoimmun Rev* 2007;7:71-6.
7. . Baiardini I, Pasquali M, Braidò F, Fumagalli F, Guerra L, Compalati E, et al. A new tool to evaluate the impact of chronic urticaria on quality of life: chronic urticaria quality of life questionnaire (CU-QoL). *Allergy* 2005;60:1073-8.
8. Richards HL , fortune DG et al . Patients with psoriasis and their compliance with medication . *J Am Acad Dermatol* 1999; 41: 581-3 .
9. Zaghloul S,Gonzalez M et al . In psoriasis , the greater the disability , the poorer the topical treatment compliance . *Br J Dermatol* 1999 ; 141 (Suppl . 55) : 48 .

10. Gaig P et al: Epidemiology of urticaria in Spain. *J Investig Allergol Clin Immunol* 14:214, 2004
11. Kaplan AP, Horakova Z, Katz SI. Assessment of tissue fluid histamine levels in patients with urticaria. *J Allergy Clin Immunol* 1978; 61: 350–4.
12. Ferrer M, Nakazawa K, Kaplan AP. Complement dependence of histamine release in chronic urticaria. *J Allergy Clin Immunol* 1999; 104: 169–72.
13. Doeglas HMG, Bleumink E. Plasma inhibitors in the plasma of patients with chronic urticaria. *Arch Dermatol* 1975; 11: 979–85.
14. Kobza Black A, Greaves MW, Champion RH et al. The urticarias 1990. *Br J Dermatol* 1991; 124: 100–8.
15. Champion RH. Acute and chronic urticaria. *Semin Dermatol* 1987; 6: 286–91.
16. Ormerod AD, Reid TMS, Main RA. Penicillin in milk: its importance in urticaria. *Clin Allergy* 1987; 17: 229–34
17. Ameisen JC, Capron A. Aspirin-sensitive asthma. *Clin Exp Allergy* 1990; 20: 127–9.
18. Champion RH, Muhlemann MF. A list of potential causes of urticaria. In: Champion RH, Greaves MW, Kobza Black A et al., eds. *The Urticarias*. Edinburgh: Churchill Livingstone, 1985: 123–9.
19. Lessof MH. Reactions to food additives. *J R Soc Med* 1992; 85: 513–5.

20. Sibbald RG, Cheema AS, Lozinski A et al. Chronic urticaria: evaluation of the role of physical, immunologic, and other contributory factors. *Int J Dermatol* 1991; 30: 381–6.
21. Tebbe B, Geilen CC, Schulzke JD et al. Helicobacter pylori infection in chronic urticaria. *J Am Acad Dermatol* 1996; 34: 685– 6.
22. James J, Warin RP. An assessment of the role of Candida albicans and food yeasts in chronic urticaria. *Br J Dermatol* 1971; 84: 227–37.
23. Wolfrom E, Chene G, Boisseau H et al. Chronic urticaria and Toxocara canis . *Lancet* 1995; 345: 196.
24. Numata T, Yamamoto S, Yamura T. The role of mite allergen in chronic urticaria. *Ann Allergy* 1979; 43: 356–8.
25. Leznoff A, Sussman GL. Syndrome of idiopathic chronic urticaria and angioedema with thyroid autoimmunity: a study of 90 patients. *J Allergy Clin Immunol* 1989; 84: 66–71.
26. Lindelof B, Sigurgeirsson B, Wahlgren CF et al. Chronic urticaria and cancer: an epidemiological study of 1155 patients. *Br J Dermatol* 1990; 123: 453–6.
27. Stephens CJM, Black MM. Premenstrual eruptions: autoimmune progesterone dermatitis. *Semin Dermatol* 1989; 8: 26–9
28. Shelley WB, Shelley ED, Talanin NY, Santoso-Pham J. Estrogen dermatitis. *J Am Acad Dermatol* 1995; 32: 25–31.

29. McKenzie AW. Urticaria after insertion of Smith–Petersen vitallium nail. *BMJ* 1967; iv: 36.
30. Espana A, Alonso ML, Soria C et al. Chronic urticaria after implantation of two nickel-containing dental prostheses in a metal allergic patient. *Contact Dermatitis* 1989; 21: 204–5.
31. Markow H. Urticaria following a dental silver filling. *N Y State J Med* 1943; 43: 1648–52.
32. Koblenzer C. Psychosomatic concepts in dermatology: a dermatologist–psychoanalyst’s viewpoint. *Arch Dermatol* 1983; 119: 501–12.
33. Hashiro M, Okumura M. Anxiety, depression, psychomotor symptoms and autonomic nervous function in patients with chronic urticaria. *J Dermatol Sci* 1990; 123: 129–35.
34. Hein UR, Henz BM, Haustein UW et al. Zur Beziehung zwischen chronischer Urtikaria und Depression/Somatisierungsstrung. *Hautarzt* 1996; 47: 20–3.
35. Sheehan-Dare RA, Henderson MJ, Cotterill JA. Anxiety and depression in patients with chronic urticaria and generalized pruritus. *Br J Dermatol* 1990; 123: 769–74.
36. Gupta MA, Gupta AK, Schork NJ, Ellis CN. Depression modulates pruritus perception : a study of pruritus in psoriasis, atopic dermatitis and chronic idiopathic urticaria. *Psychosom Med* 1994; 56: 36–40.

37. Champion RH. Urticaria then and now. *Br J Dermatol* 1988; 119: 588–97.
38. Lewis T. Vascular reactions of the skin to injury, 1: reaction to stroking urticaria factitia. *Heart* 1924; 2: 119–29.
39. Warin RP, Champion RH. Urticaria. London: Saunders, 1974: 121–32.
40. Wong RC, Fairley JA, Ellis CN. Dermographism: a review. *J Am Acad Dermatol* 1984; 11: 643–52.
41. Warin RP. Factitious urticaria: red dermographism. *Br J Dermatol* 1981; 104: 285–8.
42. Mayou SC, Kobza Black A, Greaves MW. Cholinergic dermographism. *Br J Dermatol* 1986; 115: 371–7
43. Dover JS, Kobza Black A, Milford Ward A, Greaves MW. Delayed pressure urticaria: clinical features, laboratory investigations and response to therapy of 44 patients. *J Am Acad Dermatol* 1988; 18: 1289–98.
44. Patterson R, Mellies CJ, Blakeship ML, Pruzansky JJ. Vibratory angioedema: a hereditary type of physical hypersensitivity. *J Allergy Clin Immunol* 1972; 50: 175–82
45. Ting S, Reimann BEF, Nat R et al. Nonfamilial, vibration-induced angioedema. *J Allergy Clin Immunol* 1983; 71: 546–51.

46. Lawlor F, Kobza Black A, Breathnach AS, Greaves MW. Vibratory angioedema: lesion induction, clinical features, laboratory and ultrastructural findings, and response to therapy. *Br J Dermatol* 1989; 120: 93–9.
47. Commens CA, Greaves MW. Tests to establish the diagnosis in cholinergic urticaria. *Br J Dermatol* 1978; 98: 47–5
48. Koro O, Dover JS, Francis DM et al. Release of prostaglandin D2 and histamine in a case of localized heat urticaria and the effect of treatments. *Br J Dermatol* 1986; 115: 721–8.
49. Neittaanmaki H. Cold urticaria: clinical findings in 220 patients. *J Am Acad Dermatol* 1985; 13: 636–44.
50. Sarkany I, Turk JL. Delayed hypersensitivity to cold. *Proc R Soc Med* 1965; 58: 622–3.
51. Soter NA, Joshi NP, Twarog FJ et al. Delayed cold induced urticaria. *J Allergy Clin Immunol* 1977; 59: 294–7.
52. Uetsu N et al: The clinical and photobiological characteristics of solar urticaria in 40 patients. *Br J Dermatol* 142:32, 2000
53. Harber L et al: Immunologic and biophysical studies in solar urticaria. *J Invest Dermatol* 41:439, 1963
54. Sams WJ et al: Solar urticaria. Investigation of pathogenetic mechanisms. *Arch Dermatol* 99:390, 1969

55. Bonkowsky H et al: Heme synthetase deficiency in human protoporphyria. Demonstration of the defect in liver and cultured skin fibroblasts. *J Clin Invest* 56:1139, 1975
56. Lim H et al: Generation of chemotactic activity in serum from patients with erythropoietic protoporphyria and porphyria cutanea tarda. *N Engl J Med* 304:212, 1981
57. Czarnetzki BM , Breetholt KH , Traupe H . Evidence that water acts as a carrier for an epidermal antigen in aquagenic urticaria . *J Am Acad Dermatol* 1986; 15: 623–7.
58. Simons FER. Prevention of acute urticaria in young children with atopic dermatitis. *J Allergy Clin Immunol* 2001; 107: 703–6.
59. Kelso JM. Pollen–food allergy syndrome. *Clin Exp Allergy* 2000; 30: 905–7.
60. Champion RH, Roberts SOB, Carpenter RG, Roger JH. Urticaria and angiooedema: a review of 554 cases. *Br J Dermatol* 1969; 81: 588–97
61. Green GR, Koelsche GA, Kierland RR. Aetiology and pathogenesis of chronic urticaria. *Ann Allergy* 1965; 23: 30–6.
62. Fowler PBS. Epilepsy due to angioneurotic oedema. *Proc R Soc Med* 1962; 55: 601–2.
63. Williamson DM .Reticulate erythema : a prodrom in hereditary angioedema *Br J Dermatol* 1979; 101:549 -52.

64. Donaldson VH, Evans RR. A biochemical abnormality in hereditary angioneurotic edema. *Am J Med* 1963; 35: 37–44.
65. Bork K, Barnstedt SE, Koch P, Traupe H. Hereditary angioedema with normal C1-inhibitor activity in women. *Lancet* 2000; 356: 213–7.
66. Davis MD, Daoud MS, Kirby B, Gibson LE, Rogers RS 3rd. Clinicopathologic correlation of hypocomplementemic and normocomplementemic urticarial vasculitis. *J Am Acad Dermatol* 1998;38:899-905.
67. Grattan CEH, Sabroe RA, Greaves MW. Chronic urticaria. *J Am Acad Dermatol* 2002; 46: 645– 60.
68. Simons FER, Simons KJ. The pharmacology and use of H1-receptorantagonist drugs. *N Engl J Med* 1994; **330**: 1663–70.
69. Brestel EP, Thrush LB. The treatment of glucocorticosteroid-dependent urticaria with stanozolol. *J Allergy Clin Immunol* 1988; 82: 265–9.
70. Grattan CEH, Francis DM, Slater NGP *et al.* Plasmapheresis for severe, unremitting, chronic urticaria. *Lancet* 1992; 339: 1078–80.
71. O'Donnell BF, Barr RM, Kobza Black A *et al.* Intravenous immunoglobulin in autoimmune chronic urticaria. *Br J Dermatol* 1998; 138: 101–6.
72. Grattan CEH, O'Donnell BF, Francis DM *et al.* Randomised double-blind study of cyclosporin in chronic 'idiopathic' urticaria. *Br J Dermatol* 2000; 143: 365–72.

73. Calman KC. Quality of life in cancer patients –an hypothesis .J Med Ethics 1984; 10(3); 124-7 .
74. Jemec GB, Wulf HC. Patient –physician consensus on quality of life in dermatology . Clin Exp Dermatol 1996; 21; 177 -9 .
75. Finlay AY , Coles EC et al . Quality of life improves after seeing a dermatologist . Br J Dermatol 1998; 139 (Suppl 51) : 15.
76. Skoet R, Zachariae R et al. Contact dermatitis and quality of life : a structured review of the literature . Br J Dermatol 2003; 149 ; 452 -6 .
77. Williams TL, May CR et al. patient satient satisfaction with tele dermatology is related to perceived quality of life Br J Dermatol 2001; 145: 911-7 .
78. Finlay AY and Khan GK. Dermatology Life Quality Index (DLQL) – a simple practical measure for routine clinical use . Clin Exp Dermatol 1994; 19 210 -6 .
79. Lewis V, Fnlay AY . 10 years experience of the DLQL . J Invest Dermayol 2004 (In press) .
80. Mazzotti E, picardi S et al . Sensitivity of the Dermatology Life Quality Index to clinical change in patient with psoriasis . Br J Dermatol 2003 ; 149: 318 -22.

81. Engin B, Uguz F, Yilmaz E, Ozdemir M, Mevlitoglu I. The levels of depression, anxiety and quality of life in patients with chronic idiopathic urticaria. *J Eur Acad Dermatol Venereol*. 2008;22:36–40.
82. Kang MJ, Kim HS, Kim HO and Park YM, The Impact of Chronic Idiopathic Urticaria on Quality of Life in Korean Patients.
83. Lennox RD. Validation of the Dermatology Life Quality Index as an outcome measure for urticaria-related quality of life. *Ann Allergy Asthma Immunol* 2004;93:142-6.
84. Hermansen SE, Helland CA, Finlay AY. Patients' and doctors' assessment of skin disease handicap. *Clin Exp Dermatol* 2002;27:249-50.
85. O'Donnell BF, Lawlor F, Simpson J, Morgan M, Greaves MW. The impact of chronic urticaria on the quality of life. *Br J Dermatol* 1997;136:197-201.
86. Poon E, Seed PT, Greaves MW, Kobza-Black A. The extent and nature of disability in different urticarial conditions. *Br J Dermatol* 1999;140:667-71.
87. Godse KV. Methotrexate in autoimmune urticaria. *Indian J Dermatol Venereol Leprol* 2004;70:377.
88. Baiardini I, Giardini A, Pasquali M, Dignetti P, Guerra L, Specchia C, et al. Quality of life and patients' satisfaction in chronic urticaria and respiratory allergy. *Allergy* 2003;58:621-3.

89. Aftergut, K., Carmody, T., & Cruzm, P.R. (2001) . Use of the HIV-Dermdex quality-of-life instrument in HIV-infected patients with skin diseases. *Int. J. Dermatol*,40, 472-484.

90. Grob JJ, Revuz J, Ortonne JP, Auquier P, Lorette G. Comparative study of the impact of chronic urticaria, psoriasis and atopic dermatitis on the quality of life. *Br J Dermatol*. 2005;152:289–295.

Appendix

Fig.10. Chronic urticaria and quality of life index (Patient Proforma)

S.NO :..... DATE :.....

Patient name :..... Age :.....

Residence :..... Nationality :.....

Occupation :.....Type of work :.....

Marital status : Un married () married () Divorced ()

- Clinical diagnosis :.....
- Duration
- Associated manifestations :.....
- Aggravating factors : Stress () infection () Sun exposure ()

Drugs

Others

Family history of same disease :.....

Associated systemic disease

Treatment :

Topical :.....

Systemic:

DERMATOLOGY LIFE QUALITY INDEX QUESTIONNAIRE

1.	HOW ITCHY , SORE , PAINFUL OR STINGING HAS YOUR SKIN BEEN ?	Very much A lot A little Not at all	
2.	How embarrassed or self conscious have you been because your skin?	Very much A lot A little Not at all	
3.	How much has your skin interfered with you going shopping or looking after your home or garden?	Very much A lot A little Not at all	Not relevant
4.	How much has your skin influenced the clothes you wear ?	Very much A lot A little Not at all	Not relevant
5.	How much has your skin affected any social or leisure activities ?	Very much A lot A little Not at all	Not relevant
6.	How much has your skin made it difficult for you to do any sport ?	Very much A lot A little Not at all	Not relevant
7.	Has your skin prevented you from working or studying ?	Very much A lot A little Not at all	Not relevant
	If "No" , how much has your skin been a problem at work or studying ?		
8.	How much has your skin created problems with your partner or any of your close friends or relatives ?	Very much A lot A little Not at all	Not relevant
9.	How much has your skin caused any sexual difficulties ?	Very much A lot A little Not at all	Not relevant
10.	How much of a problem has the treatment for your skin been , for example by making your home messy , or by taking up time ?	Very much A lot A little Not at all	Not relevant

المقياس الجلي لجودة الحياة

خلال هذه الأسئلة نسعى إلى قياس الحجم الحقيقي لمشكلتك الجلدية خلال الأسبوع الماضي ، الرجاء اختيار حقل واحد من الأجوبة واحد من الأجوبة لكل سؤال .

1. خلال الأسبوع الماضي، ما مقدار الحكمة ، الألم بأشكاله المختلفة أو الإحساس بالوخز أو اللسع بسبب جلدك ؟

*كثير جداً ، * كثير ، * قليل ، * معدوم .

2. خلال الأسبوع الماضي، ما مقدار إحراجك أو ارتباكك بسبب جلدك ؟

*كثير جداً، *كثير ، * قليل . * معدوم .

3. خلال الأسبوع الماضي ، ما مدى ما أعاقك جلدك في تأدية بعض أعمالك مثل التسوق أو العمل المنزلي أو العمل في حديقة الدار ؟

* كثير جداً ، * كثير ، * قليل ، * معدوم ، * ليس له أي صلة بالموضوع .

4. خلال الأسبوع الماضي ما مدى تأثير جلدك على أسلوب اختيارك لملابسك التي ترتديها ؟

* كثير جداً ، * كثير ، * قليل ، * معدوم ، * ليس له أي صلة بالموضوع .

5. خلال الأسبوع الماضي هل أثر جلدك علي أي نشاط اجتماعي أو نشاط تقوم به في وقت فراغك؟

* كثير جداً ، * كثير ، * قليل ، * معدوم ، * ليس له أي صلة بالموضوع .

6. خلال الأسبوع الماضي ما مدى صعوبة القيام بأي نشاط رياضي بسبب جلدك ؟

* كثير جداً ، * كثير ، * قليل ، * معدوم ، * ليس له أي صلة بالموضوع .

7. خلال الأسبوع الماضي هل منعك مرضك من العمل أو الدراسة ؟

* نعم ، لا ، * ليس له أي صلة بالموضوع .

إذا كان الجواب بالنفي ، فخلال الأسبوع الماضي ما مقدار المشكلة التي سببها لك مرضك في العمل والدراسة ؟

*كثير ، قليل ، * معدوم

8. خلال الأسبوع الماضي ، ما مقدار المشكلة التي سببها لك مرضك مع شريكك أو مع اصدقاءك المقربين أو أقاربك ؟

* كثير جداً ، كثير ، قليل ، * معدوم ، * ليس له أي صلة بالموضوع .

9. خلال الأسبوع الماضي ، ما مقدار الصعوبات الجنسية بسبب مرضك ؟

* كثير جداً ، كثير ، قليل ، * معدوم ، * ليس له أي صلة بالموضوع .

10. خلال الأسبوع الماضي، ما مقدار ما سبب لك العلاج الجلدي من مشاكل ، على سبيل المثال كم كان مقدار الفوضى التي حدثت في منزلك أو كم من الوقت استهلكت ؟

* كثير جداً ، كثير ، قليل ، * معدوم ، * ليس له أي صلة بالموضوع .

LIST OF TABLES

Table		page
Table 1	Drugs related to urticaria	36
Table 2	Foods related to urticaria	36
Table 3	Frequency of associated illness	36
Table 4	Mean scores of life quality in relation to patient Gender	37
Table 5	Mean scores of quality of life in relation to patient age and duration of illness	37
Table 6	Mean scores of quality of life score and marital status	37
Table 7	Mean scores of quality of life score and occupation	37
Table 8	Quality of life score in relation to education	38
Table 9	Mean scores of quality of life in relation to angioedema	38

LIST OF FIGURES

Figure		page
Figure 1	Distribution of study population on age groups -percentages	39
Figure 2	Distribution of marital status of study sample	40
Figure 3	Distribution of jobs of study sample	41
Figure 4	Occurrence of stress as an aggravating factor in the study sample	41
Figure 5	Occurrence of sun or hotness as an aggravating factor in the study sample	42
Figure 6	Systemic illnesses coexisting in the study sample	42
Figure 7	Means of score of dermatology life quality in groups based on presence of any aggravating factor	43
Figure 8	Proportions of score summations individualized for different areas of life quality affected	44
Figure 9	Distribution of study cases in categories of life quality index score	45
Figure 10	Patient Proforma	67