## Study of Efficacy of Autologous Serum Therapy in Patients with Chronic Autoimmune Urticaria

### Thesis

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This work is dedicated to the most important persons in my life

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My Sisters

\* Hanan & Ashgan \*

A

My husband

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My little angels

\* Aya, Sara, Malak \*



سورة البقرة الآية: ٣٢



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#### **List of Abbreviations**

**AAE** : Acquired angioedema with c1 esterase

inhibitor deficiency

**ACE** : Angiotensin-converting enzyme

**ACTH** : Adrinocorticotropic hormone

**ANCA** : Antineutrophil cytoplasmic antibody

**APST** : Autologous plasma skin test

**ASOT** : Anti-streptolysin o test

**ASST** : Autologous serum skin test

**AST** : Autologous serum therapy

**AT** : Autoimmune thyroiditis

**AWB** : Autologous whole blood

**CAU** : Chronic idiopathic urticaria

**CIU** : Chronic idiopathic urticaria

**CU** : Chronic urticaria

CU-Q(2)oL: German version of the chronic urticaria

quality of life questionnaire

**DLQI** : The dermatology life quality index

**EAACI** : European Academy of Allergology and

Clinical Immunology

**EBV** : Epstein-barr virus

**EDF/WAO**: European DermatologyForumand the

World Allergy Organization

**ESR** : Erythrocyte sedimentation rate

**ESR** : Erythrocyte sedimentation rate

**FBC**: Full blood count

#### 🕏 List of Abbreviations 🗷

**GA2LEN**: The global allergy and asthma European

Network

**HAE** : Hereditary angioedema

**HBsAg** : Hepatitis B surface antigen

**HCV Ab** : Hepatitis C virus antibody

**HRA** : Histamine release assays

**HRFs**: Histamine-releasing factors

**IgE** : Immunoglobulin E

**IgG**: Immunoglobulin G

IL-1 : Interleukin-1

**IVIG** : Intravenous immunoglobulin

**KFT**: Kidney function test

**LFT**: Liver function test

**LFT**: Liver function test

LTRAs : Leukotrienes receptor antagonists

**NB-UVB** : Narrowband ultraviolet B

**NSAID** : Non-steroidal anti-inflammatory drug

**PAF** : Platelet-activating factor

**QoL** : Quality of life

SA : Spotnaneous angioedema

**SPTs** : Skin prick tests

**TNF-** $\alpha$  : Tumor necrosis factor alpha

**UAS** : The urticaria activity

**UEMS**: The european union of medical specialists

**USS** : The urticaria total severity score

**UV** : Ultraviolet

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## Introduction

In 1769, William Cullen introduced the word "urticaria" (transient edematous papule, plaque with itching). It is a clinical reaction pattern triggered by many factors causing the liberation of vasoactive substances such as histamine, prostaglandins and kinins. Urticaria is classified according to its duration into acute (< 6 weeks duration) and chronic (>6 weeks duration) (*Shankar et al.*, 2010).

In 1993, *Hide et al.*reported that autoantibodies against the high-affinity IgE receptor, FcεR Iα cause histamine release in a subset of patients with chronic urticarial (CU). Subsequent reports established that 27-61% (*Grattan et al., 2002, Greaves et al., 2002, Godse, 2004, Buss et al., 2007*) of CU patients, depending on the method of antibody detection, had these circulating antibodies in their blood. The simplest screening method to identify this group of patients having what was termed chronic autoimmune urticaria (CAU), was found to be the autologous serum skin test (ASST). Intradermal injection of autologous serum in these patients elicited an immediate-type wheal and flare response indicating the presence of a