교 육 강 좌

성인 두드러기 증례 토의

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박 해 심

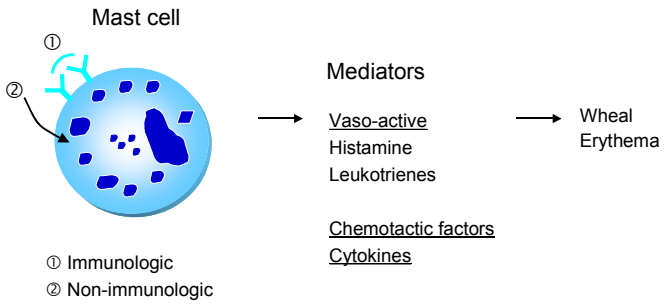


Fig. Release of chemical mediators to cause wheal and erythema reaction

Urticaria Classification

1. Acute : Food and drugs
   * Seafood
2. Chronic : > 6 weeks
   *ASA, Food additive sensitivities
   Thyroid autoimmunity
   ACE inhibitor , rarely angiotensin receptor antagonist
3. Physical urticaria
   Heat / Cold / Pressure
   Exercise (cholinergic)
4. Urticaria vasculitis
5. C1 esterase inhibitor deficiency : hereditary or acquired

Acute urticaria due to seafood

Food additives and their clinical symptoms

1. ASA-related allergy : ASA- intolerant asthma, rhino-sinusitis, urticaria (acute and chronic), angioedema, anaphylaxis
2. Sulfite : Asthma, rhinitis, anaphylaxis, urticaria, angioedema
3. Tartrazine : asthma, urticaria
4. Na benzoate : asthma, urticaria
5. Monosodium glutamate : asthma, urticaria Chinese restaurant syndrome

Chronic urticaria in a 23-year male patient

CC : Generalized urticaria for 3 months

PH : Food Allergy to fish

FH : Asthma and Rhinitis in his sisters

Not associated with angioedema

Laboratory findings

Allergy skin prick test : All negative responses

Total IgE : 137 IU/ml

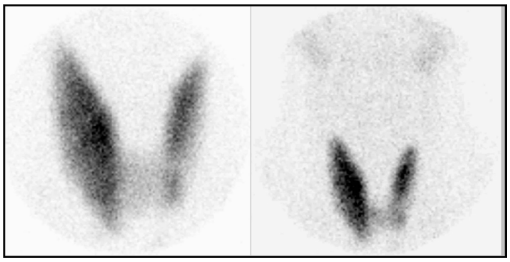
CBC, ESR, TEC : W. N. L

ANA : Negative

C1 esterase inhibitor : W. N. L

HBS-Ag : - , ant HBS-Ab : +

ASA-oral provocation test : Negative



anti-TG antibody : P (450U/ml, N<100),

anti-MC antibody : P (2904U/ml, N<100)

Euthyroid state on TFT, C/W : Hashimoto's thyroiditis

Diagnosis and Management

Dx : Chromic urticaria associated with thyroid autoimmunity

Management

1. Combination H_1 and H_2 anti-histamines for 3 months
2. Add oxiklorin on two H_1 and H_2 antagonist
3. Thyroid hormone in severe cases

Chromic urticaria associated with thyroid autoimmunity

Table 1. Comparisons of clinical and laboratory parameters in chronic idiopathic urticaria patients with or without thyroid autoantibodies.

Thyroid auto-antibody	N	Age (yrs)	Sex (M/F)	Duration (mo)	ANA Positivity (no)	TEC(/ul)	Total IgE(IU/ml)
Positive reactor	24	36.7±10.1	**7/17**	**48.8*±49.3**	1	193.9±282.3	**185.4±194.7**
Negative reactor	**75**	36.7±11.7	37/38	27.3±42.5	2	210.3±296.9	255.7±277.1

Suh YJ et al; Clinical significance of thyroid auto-antibodies in patients with chronic idiopathic urticaria; J Asthma Allergy Immunol 20:528, 2000

Severe recurrent urticaria in 28-year-old male

1st visit : July, 2002

CC : Generalized urticaria for 4 yrs, progressive,
combined with angioedema, abdominal pain ,shortness of breath

PH : No food allergy history
Nine H_1 antagonist medications including systemic steroid
since 1998

Drug allergy history : urticaria is more aggravated by URI medications

Lab. findings (July-02)

CBC, ESR, TEC : WNL except elevated SGPT (50)

Auto antibody screening : ANA(-), anti-TG(-), anti-MC(-)

Total IgE : 448 IU/ml, Specific IgE to HDM : elevated

Allergy skin prick test : positive response to HDM, tree pollens

FGS : GERD, gastric erosion

Diagnosis and Management

Dx : Chronic urticaria associated with ASA sensitivity

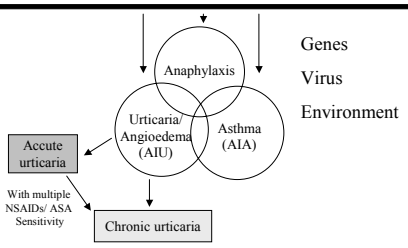
1. 2002-07 ~ 2003-02 (7개월)
   5-6 kinds of H_1 antagonist and H_2 antagonist + oxiklorin
   + colchicin + oral steroid (10-20mg/d)
2. 2003-02 ~ 2004-01
   Stopped oral steroid, mainatain H_1 and H_2 antagonist (1-2개)
3. 2004-01 ~ 2004-03 : Two H_1 antagonist every 2-3 days
4. 2004-10 : Aggravated again with chest pain : not controlled by steroid
5. 2004-11 : IVIG for 5 days and monthly injection
6. 2005-01 : Severe urticaria and angioedma after taking ibuprofen 300mg – oral provocation test

Prevalences of ASA/NSAIDs related allergic diseases

1. Asthma (ASA intolerant asthma)
   1) Childhood : asthma <10 years: rare, 10-20 years: 10%
   2) Adulthood: asthma all: 10-20 %
      asthma and rhino-sinusitis: 30-40%
      history of ASA reactions: 60-85%
2. Chronic urticaria
   Disease controlled : 20-30 %, Disease uncontrolled : 50-80%
3. Acute urticaria: 1-2 %
4. Anaphylaxis < 1%
5. Aseptic menigitis and hypersensitvity peumonitis : rare

Stevenson et al, 60th AAAAI meeting, 2003 March

ASA/ NSAID-related allergies



-Single NSAID sensitivity (IgE-mediate)
-Multiple NSAID/ ASA sensitivity
-AIA + AIU
-Blended reactions (AIU + AIA + Anaphylaxis)

Chronic urticaria in patients with autoimmunity (Ab to FcεRI)

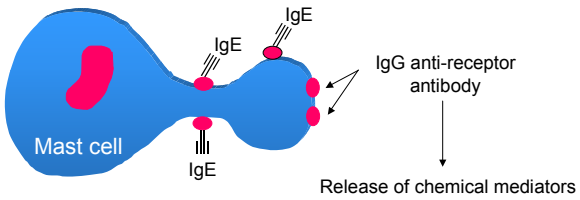


Fig. Diagram of the activation of cutaneous mast cells by IgG antibody directed to the IgE receptor.

Urticarial vasculitis

Recurrent urticaria and angioedema with cutaneous vasculitis (venule)
associated with serum sickness, c-t diseases
infections (viral) or physical stimuli

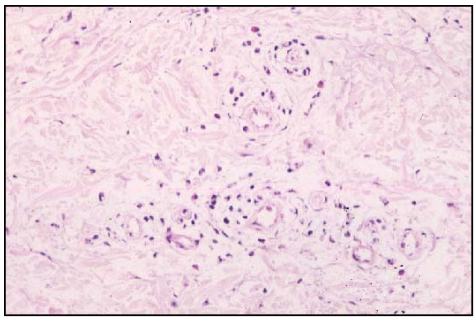
Clinical features
- chronic
- female (70%) > 40 yrs
- longer duration, daily development
- pururitic, buming or painful quality
- may induce hyperpigmentation
- associated with general symptoms renal and lung (fever, malaise, LN enlargement)

Lab findings
- ESR↑, ↓ complement (Ab to Clq)

Treatment
- Anti-histamine agents, NSAIDs
- Require oral coticosteroid
- Colchicine, hydroxychloroquice, dapsone, MTX or cytoxan

Skin biopsy: lymphocyte or neutrophil dominant

Neutorphil dominant group require more oral steroid



Sudden onset of angioedema with dyspnea in 29-year-old male patient

CC : Sudden onset of facial edema and dyspnea for 2 days

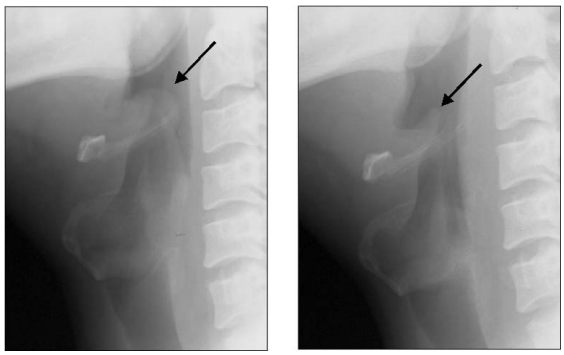
PH :For 15 yrs, intermittent angiedema on both upper extremities every 2 months - persistent for 2, 3 days -spontaneous recovery

No histories of drug or food allergies

FH : No family history of allergic diseases

PE : Angioedema on both hands and face

Laryngeal edema



Laboratory findings (1999)

WBC : 11,200 (neutrophil 83.7%, eosinphil 0.8%)

ESR : 15m/hr (0-10)

Autoantibody : ANA(-), IgG/ IgA/ IgM : WNL

Total IgE : 278 IU/ml C_3 :Normal, C_4: 11mg/dl (12-43), Clq (↓)

C1 esterase inhibitor level : 7.0 ml/dl (11-99)

Allergy skin prick test : Positive response to HDM

Diagnosis and management

Dx : Acquired C1 esterase inhibitor (C_1 INH) deficiency (type II)

- type I : Lymphoproliferative disorder, autoimmune diseases
- type II : Autoantibody generation to C_1INH by B-lymphocyte

1. Anti-histamine (H1)
2. Danazole : 100mg × 2/day

Course: No angioedema attack with normal Cl INH level after taking danazole for 4years

Sudden onset of generalized angioedema in 37-year-old female

CC : Generalized progressive angioedma for 3 days after common cold

PH : Diagnosed as having SLE and treated for two years- remission for 4 yrs without any medications, Atopic dermaitis and allergic rhinits for 7 yrs

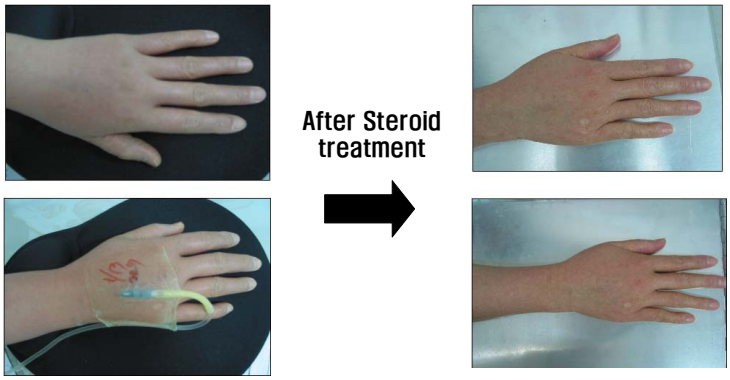
No drug histrory

PE : High fever(> 38 C), no urticaria , upper or lower respiratory symptoms arthralgia

Lab : WBC: 2300/ul, lymphopenia, plt: 80,000/ul, ANA : positive in 1:320

Elevated in ESR, hemolytic anemia

Acquired type of angioedema, type I



Angioedema associated with systemic diseases

Associated with

- Autoimmune diseases (SLE)
- Hematologic or lymphoproliferative diseases
- Hypocomplementemia

Management

•Medications for underlying diseases

Physical urticaria

Immediate onset, disappear within 2hr

1. Dermographism
2. Pressure urticaria
3. Vibratory urticaria
4. Cold urticaria
5. Cholinergic urticaria

Exercise-induced urticaria and anaphylaxis

Cholinergic urticaria

1. Induced by various conditions, elevated core body temperature, mainly exercise
2. Cholinergic urticaria alone
3. Cholinergic urticaria + exercise induced anaphylaxis

   Cf) food-dependent exercise induced anaphylaxis

   Specific foods: wheatflour, vegetable, seafood, buckwheat flour,

   Cf) exercise induced asthma
4. Management

Anti-histamine agents and prevention

Cold Urticaria

Diagnosis: History and Ice cube test

표. 만성 두드러기의 검사

일차선별검사
CBC, Differential count, ESR
C3, C4, CH50
ANA
IgG, A, M
HBsAg/anti-HBsAb
SGOT/SGPT
TFT
* Thyroid auto-antibody : thyroglobulin and microsomal antibody level
Urinalysis

추가검사
Allergy skin prick test
Food elimination and challenge
Challenge with physical agents
Oral provocation test with food additive/drugs
Skin biopsy

두드러기 치료의 핵심

1. 분류가 중요하다 (기간, 병인, 임상 양상에 따른).

2. 원인 및 악화 인자 규명이 중요

3. 조기 약물 투여 및 장기적인 약물 투여가 중요하다.

4. 심한 만성 두드러기의 경우 면역 조절제 등의 치료가 필요하다.