**Abstract**

Background: Atopic Dermatitis (AD) is a chronic skin disease which often relapsed and associated with abnormality skin barrier, allergen sensitization and recurrent skin infection. This research was conducted to figured out the prevalence of AD patients which treated by the systemic therapy in Outpatient Clinic of Allergic and Immunology Division of Dr. Soetomo Hospital in 2013. As well as there is a lack information of this issue in Indonesia.

Methods: The authors used observational descriptive as a research design. The instrument are used from medical records. The new patients of AD who treated by systemic therapy as a sample. The variable are the types of systemic therapy their used and the profile of patient.

Result: All of AD patients used Cetirizine the antihistamin as the mayor systemic therapy (100%). 32 patients took corticosteroid Dexamethasone (34,7%). 2 patients used antibiotics (2.2%). The Algorithms of therapy according to Consensus guideline for management atopic dermatitis in asia pacific.

**Introduction**

Atopic Dermatitis (AD) is a chronic skin disease which often relapse and associate with abnormality skin barrier, allergen sensitization and recurrent skin infection. Babies and children are common. Insidence of AD at Outpatient Clinic is increasing every year. The Amount of AD patients in 2006 was 116 (8,14%), in 2007 was 148 (11,05%) and 2008 was 230 (17,65%) [1-3].

AD research was limited especially about the prevalence of the systemic therapy. The unsatisfied therapy of AD caused by long term therapy and relapsed was still happens.

**Methods**

The design of this research are observational descriptive. The sample was all of the new AD patients at Outpatient Clinic in 2013. The variable taken by the type of the systemic therapy that patient consumed, age, gender, jobs, the chief complaint, the onset, the atopic history, the morphology of lesion and predilection of lesion. The secondary data from medical records as the instrument. The data has been collected and assembled in descriptive. The result will be presented in tables and images.

**Result**

The amount of AD patients who got systemic therapy in throughout a year in 2013 was 92 patients (Table 1). The prevalence of a chief complaint of the AD pateints at Outpatient clinic Division of Allergy and Immunology Dr. Soetomo General Hospital Surabaya in 2013.

According Table 1, women are more common in AD who treated by the systenmic therapy, there are approximately 65 patients (70,7%). The group of 15-24 years old are most dominant toacquired AD, 35 patients (38%). Based on the collected data, the jobs of AD patients are 40 patients an employee of non government (43,5%), 15 patients are a housewife (16,3%) and 6 patients are a public servants (6,5%).

According Table 2, the most chief complaint that brought patients to the hospital are the pruritus skin, there are 70 patients (76,1%). The onset of the chief complaint were begun less than one year 47,8%, in between 1-12 months as 32,6%, more than one year about 16,3%.

The history of atopic in AD patients themselves are 23,9%. Meanwhile, the history of atopic in family member of AD patients are approximately 19,6%. The most types of atopic which experienced by patients are rhinitis allergic 14,1%. On the other hand, there are asthma bronchiale
10.9%, urticaria 2.2%, both asthma bronchiale and rhinitis allergic 7.6%. Asthma bronchiale, rhinitis allergic and urticarial in the same patient 1.1%.

In Physical examination were found the most morphologic are erythema as 68 patients (73.9%). Another morphologic are papule 46.7%, lichenification 41.3%, erosion 36.9%, xerosis 29.3%, Ichthyosis 26.1%, excoriation 20.6%, hyperpigmentation 8.7%, pustule 8.7%, vesicle 2.2%. The predilection were found are the extensor 89.2%, on the face 9.8%, the trunks 9.8%, the neck 3.3% and the flexor 2.2%.

The most common systemic therapy were given to 92 patients are antihistamine (Figure 1). Another options are corticosteroid and antibiotics. The most given antihistamine are Cetirizine 78.2%. Dexamethasone are popular corticosteroid for AD, approximately 34.7%. The rarely therapy that used among AD are antibiotics, Erythromycin and Amoxycillin 1.1% (Figures 2-4).
Discussion

In this research women are the most gender who suffering AD. It was matched with the research in korea that shown women are common in AD than men. There are literature which revealed babies and toddler are most in AD and tend to developed until they grow up. FLG gene are allegedly play a role to increasing the AD risk in babies. However in Dr.Soetomo General Hospital, the patients below 14 years old admitted in pediatric outpatient clinic [1,4,5].

According Table 2, the most chief complaint made patients seek the doctor are pruritus. The pruritus may appear caused by skin barrier disfunction called FLG gene mutation. FLG took a part for filagrin coding. Filagrin is a cornocytes stabilizer which forming the skin barrier. When filagrin been interrupted, the allergen are free to made penetration into the skin and became the pruritus skin. In AD patients there are immunologic deficieny, those are increasing IgE and lymphocyte T dysfunction. On early phase reaction of AD, after the allergen bind to IgE on the surface of the mast cell, then degranulation of mast cell occurred. Thus, the histamine and the cytokines came out of the mast cells then appeared symptoms such as dominant pruritus and redness of the skin [6,7].

Children with AD might increasing the susceptibility to suffering asthma bronchiale and rhinitis allergic, mainly a child who has AD below 2 year old approximately 50% to acquired asthma bronchiale. Those children might increasing the possibility to suffer from asthma bronchiale and rhinitis allergic. Thus, the children need to be treated as early as possible. The most chief complaint made patients seek the doctor are pruritus. The pruritus may appear caused by skin barrier disfunction called FLG gene mutation. FLG took a part for filagrin coding. Filagrin is a cornocytes stabilizer which forming the skin barrier. When filagrin been interrupted, the allergen are free to made penetration into the skin and became the pruritus skin. In AD patients there are immunologic deficieny, those are increasing IgE and lymphocyte T dysfunction. On early phase reaction of AD, after the allergen bind to IgE on the surface of the mast cell, then degranulation of mast cell occurred. Thus, the histamine and the cytokines came out of the mast cells then appeared symptoms such as dominant pruritus and redness of the skin [6,7].

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The acute lesion of AD, commonly marked by the intensified pruritus, papule erythema with excoriation, vesicle and the serous exudate. Then, in subacute lesion arearised the erythema, excoriation with scaling papule. In chronic lesion marked by thickening plaque, protruded of skin markings and fibrotic papule (prurigo nodule). The predilection of lesion could be classified based on age and the disease activity. In the babies patient, the lesion often appear on face region, scalp and extensor extremity. In adolescence who has AD longer than the babies, might developed to chronic AD with lichenification and located erythema in the flexor folds. In adult patient, the lesion mostly on cubiti fossa, popliteal fossa, neck and wrist. The lesion may appeared are papule, vesicle and lichenification [6,8].

The management of AD with systemic therapy in dermatology department of Dr.Soetomo General Hospital such as, antihistamine, corticosteroid and antibiotic. The antihistamine has given are Cetirizine, Chlorpheniramine, Diphenhydramine HCL and Loratadine. The corticosteroid mostly given are Prednisone and Dexamethasone. If there are secondary infection on AD lesion, could chosen antihistamine are Cetirizine. Dexamethasone are popular corticosteroid for relieve the AD inflammation in Dr. Soetomo hospital. Antibiotics that have been used are Erythromycin and Amoxicillin. The result of gender prevalence that common in AD are woman. The age group that popular in AD are 15-24 years old. The most predilection are the extensor extremity in AD patients in Dr.Soetomo hospital.

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The advice for Division of allergy and immunology in Dr.Soetomo are the responds of therapy systemic in AD patients could be input in medical record for evaluation. Then, SCORAD index could be aplicated in the future in clinical assessment. The research of AD still necessary because the therapy of AD still unsatisfied and made AD still relapsed.

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Reference


