aohc

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2d asean meeting on dental public health (amdph)

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Prepace

Dear Colleagues,

On behalf of the organizing committee of the Asian Oral Health Care (AOHC) and 2nd Asian Meeting on Dental Public Health (AMDPH), it is my great pleasure to all colleagues and participants to attend the AOHC & 2nd AMDPH in Jakarta, from December 20-22 November 2008

The theme of AOHC and 2nd AMDHP is Future Directions on Asian Oral Health Care. The scientific meeting will include a variety of presentations covering a wide range of interesting topics related with the theme. I hope this proceeding can benefit us to improve our knowledge.

I would like to especially thank to the speakers, participants and companies who have participate in this event.

Emmyr F. Moeis
Chaiman of AOHC & 2nd AMDPH

161 – 169 THE UNIVERSITY STUDENTS QUALITY OF LIFE DESCRIPTION WITH MANDIBULAR THIRD MOLAR IMPACTED
Sudibyo, Dwi Harijanto

170 - 177 HE BEST METHOD OF BABY'S FEEDING IN EFFORT OF CARIES PREVENTION
Eriska Riyanti

178 – 190 MECHANICAL PROPERTIES EVALUATION OF TWO ALLOYS USUALLY USED AS CAST-POST MATERIALS
Gantini Subrata, Zulia Hasratiningsih, Rosida Manurung, Novi Anggraini Siregar, Rorika Ester Sinaga

191 – 198 GRINSPAN'S SYNDROME : A CASE OF THE TRIAD OF ORAL LICHEN PLANUS, HYPERTENSION AND DIABETES MELLITUS
Irna Sufiawati, Tenny Setiani Dewi

199 - 206 THE EFFICIENCY OF 0,05% CLOBETASOL OF PROPIONATE IN CUSTOM MADE SOFT ACRYLIC TRAY IN MANAGEMENT OF DESQUAMATIVE GINGIVITIS IN PATIENT WITH ORAL LICHEN PLANUS
Madelyne Savarimuthu, M. Faiz Fitri, Irna Sufiawati

207 - 213 IDENTIFICATION OF HEMATOLOGIC DISEASE AS RISK FACTORS OF ORAL DISORDERS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOUS AT LUPUS CLINIC OF HASAN SADIKIN HOSPITAL BANDUNG IN 2007
Vivie Rafi Atunnisa, Irna Sufiawati, Rachmat Gunadi Wachjudi

214 - 222 POROSITY ANALYSIS USING ULTRASONIC WAVES OF NYLON THERMOPLASTIC AND HEAT-CURED ACRYLIC RESINS WITH DIFFERENT THICKNESSES
Nina Djustiana, Renny Febrida, Amoranto Trisnobudi, Ilmillda

223 - 228 GINGIVAL RESPONSE AFTER USING OF FIXED DENTURE RESTORATION MATERIALS
Edy Machmud

229 - 232 INTRODUCING SINGING DENTAL DRILL (HOW TO CHANGE DENTAL CARE IMAGE)
Dhanni Gustiana

233 - 242 INFLUENCE OF GREEN TEA EXTRACT TO REDUCE MERCURY LEVEL IN BLOOD
Dhona Afriza, Widyawati

243 - 252 CONE BEAM COMPUTED TOMOGRAFY - 3 DIMENSION FUTURE IMAGING IN DENTOMAXILLOFACIAL RADIOGRAPH
Fahmi Oscandar

253 - 257 INTRODUCING DENTAL PUBLIC HEALTH TO MEDICAL STUDENTS OF UNIVERSITAS PADJADJARAN AS AN ALTERNATIVE WAY IN ACCELERATING THE IMPROVEMENT OF THE NATIONAL DENTAL HEALTH CONDITION (A PERSONAL EXPERIENCE)
Grita Sudjana

258 - 262 THE MANIFESTATION ACUTE LYMPHOBLASTIC LEUKEMIA IN CHILDREN
Winny Yohana

263 - 270 MINERAL SOLUBILITY THRESHOLD OF ENAMEL AND DENTAL EROSION AFTER ACID CONTAIN SOFT DRINK CONSUMPTION IN MARMOT
Muhammad Ilyas

candidiasis and other systemic adverse effect such as moon face, buffalo hump, etc. The patient is also interviewed about any incidence of mood changes or insomnia.

CONCLUSION

In summary, prednisone 5 mg as mouth rinse was effective to control erosive lichen planus on the buccal mucosa lesions, and the application of clobetasol propianate 0.05% in custom tray appears to be effective for erosive lichen planus on gingival (desquamative gingivitis). The key factors that determine the successful of topical corticostetoid use depends upon an appropriate diagnosis, the choice of types and dosage of drugs, the specific formulations, and treatment regimen.

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IDENTIFICATION OF HEMATOLOGIC DISEASE AS RISK FACTORS OF ORAL DISORDERS IN PATIENTS WITH SISTEMIC LUPUS ERYTHEMATOUS AT LUPUS CLINIC AT HASAN SADIKIN HOSPITAL BANDUNG IN 2007

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ABSTRACT

Systemic Lupus Erythematosus (SLE) is an autoimmune disease characterized by production of various autoantibodies and complement fixing complex-immune which result in tissue damage. Immunocomplex deposition causes small-vessel vasculitis which then leads to renal, cardiac, hematologic, mucocutaneous, and central nervous system destruction. There is no typical pattern of presentation. Hematologic disorders quite often happened in patients with SLE, such as anemia, leukopenia and trombocytopenia. Anemia and leukopenia are predisposing factors of oral lessions, such as ulcer, erythema, erossion and angular cheilitis. Trombocytopenia can cause appearence of petechiae and ecchymosis in skin or oral mucossa. The aim of this research is to identify hematologic disorders as cause of oral disorders in patients with SLE at Lupus Clinic of Hasan Sadikin Hospital Bandung in 2007. The datas were taken from patients's medical records. The result shows that the percentage of patients who have had anemia is 44,4%. The percentage of patients who have had leukopenia is 19,0%. The percentage of patients who experienced trombocytopenia is 7,9%. It concluded that hematologic disease as anemia is higher risk in causing oral disorders in patients than other hematologic disease as leukopenia and trombocytopenia.

Keywords : Systemic Lupus Erythematosus, Hematologic disease, Oral disorders

INTRODUCTION

Systemic Lupus Erythematosus (SLE) is a chronic autoimmune disease and multisystem, characterized by the production of various autoantibodies, including *antinuclear antibodies* (ANA), *double-stranded* DNA (dsDNA) and *anti Smith antibody*.[1,2] Systemic Lupus Erythematosus progresivity is related to production of these autoantibodies and deposition of complement fixing

immune complex which result in tissue damage.[1,3] The SLE specific etiology is still unknown, but according to the scientist, SLE is caused by multifactor. Genetic as predisposing factor, hormonal factor, intrinsic abnormalities of immune system and environmental factor can be involved in pathogenesis of SLE.[2-4]

The occurence of SLE is high enough. According to June F. Klinghoffer, [4] in a large number of clinics in San Fransisco, new case of SLE was 7,6 % per 100.000 people with entirety prevalence was 1 case from 1969 people.[4] Systemic Lupus Erythematosus occurs ten times more frequently in females and has a higher incidence among black people. The peak incidence being in the age range of 20 to 40 years. [3,5]

In Indonesia, there is no certain number of SLE occurrence. However, there is a phenomenon increasing number of SLE occurrence at government hospital. In Department of Pathology in Faculty Of Medicine, University of Indonesia in RSCM Jakarta, there is an increasing incidence of patients with SLE. By time of year 1988-1990, mean incident was 37,69 per 10.000 treatments. The number was fold two and a half which has been reported in range of time 1972-1976 that was 15,02 per 10.000 treatment. [6]

The incidence of SLE that happened in Hasan Sadikin Hospital Bandung is quite high. Based on data, until June 2008, total number of patients with SLE Lupus Clinic in Hasan Sadikin Hospital is 162 patients. So far, the number of patients with SLE in 2007 is the highest number, 63 patients or 38,88% from the overall total of patient of SLE at clinic of lupus in Hasan Sadikin Hospital Bandung.

Systemic Lupus Eryhtematosus has no typical pattern of presentation, small vessel vasculitis occurs as result of immune-complex deposition and leads to renal, cardiac, hematologic, mucocutaneous and central nervous system destruction.[3,6] SLE also can be manifestated in oral cavity. According to Rhodus and Jhonson (1990) have reported high incidence (81,3 to 87,5%) of various oral lessions including ulcers, angular cheilitis, mucositis and glositis and high incidence (75.0 to 87,5 %) of subjective oral conditions includes glossodyia, dysgeusia, dysphagia and dry mouth.[6] Oral mucossal lessions can be found as annular leukoplakia areas and/or involve palate, purpuric lessions such ecchymosis and petechiae may also occur. The lessions usually affect the palate, buccal mucosa and gingivae. Sometimes they appear as lichenoid, but they may also look nonspecific or even granulomatous.

One of SLE manifestations is hematologic disorders such as anemia, leukopenia and trombocytopenia. Anemia have few etiologies, which includes secondary to chronic inflammatory disease ,renal insuffiency, blood loss, or drug use. Acute autoimmune hemolytic anemia resulting from autoantibodies directed against red blood cell.[7] Oral manifestation of anemia can seen in changes of membrane of oral mucosa. The tongue will be seen

turn anemic with filiformis papilla flatten. The continuing atrophy can make the tongue look slippery, run dry and gleam. The patient possibly will suffer pain in the tongue (glossodinia) or burning sensation (glossopirosis). The lips will also be seen strained and attenuate, and looked tight and thin, besides, and also the widht of the mouth is narrow. Others oral manifestation are appearance of angular cheilitis, apthose ulcerations, erythema and mucosal erosion.[8]

Leukopenia also often occured, with white blood cell counts ranging between 2500/mm^3 to 4000/mm^3 and often associated with active disease. It is considered caused by other causes such as drug use and infections. In active SLE, white blood cell rarely falls below 1500/mm^3 . Leukopenia increased the consequencies of bacterial infection, in some cases, ulcer in mouth and oropharny is the lead as oral manifestation of leukopenia.[9]

Trombocytopenia have other etiologies such as infection or drug use. Patients with thrombocytopenia, follows a course of acute SLE and responds to treatment of the disease. The patients may also have platelet count of around 50.000/mm^3 but have no serious bleeding.[7] Trombocytopenia can be manifestated in oral cavity. It is purpuric lessions, which may appear in skin or mucossa.[10] Trombocytopenia happened when platelet count is 100.000/mm^3 or below. Petechiae and ecchymosis appears when the platelet count decreased significantly, about 10.000-30.000/mm^3. Spontan hemorrhages can happened if platelet count about less than 5000/ml.[8,11]

The aim of this research is to identify hematologic disease as a risk factors of oral disorders in patients with SLE at Hasan Sadikin Hospital Bandung in 2007.

MATERIAL AND METHOD

This research material based on the medical records of patients who have been diagnosed SLE at clinic lupus of Hasan Sadikin Bandung on January 1st to December 31st , 2007 and based on secondary data which appropriate with research variable, show that hematologic disease can cause oral disorders in patients with SLE ,these includes anemia, leukopenia and trombocytopenia.

RESULT

The research shows that the patient characteristics with SLE at Lupus Clinic of Hasan Sadikin Hospital Bandung in 2007 are mostly women. The number of female patients is 61 patients (96,83 %). The mostly ages are between 22 and 28 years old.

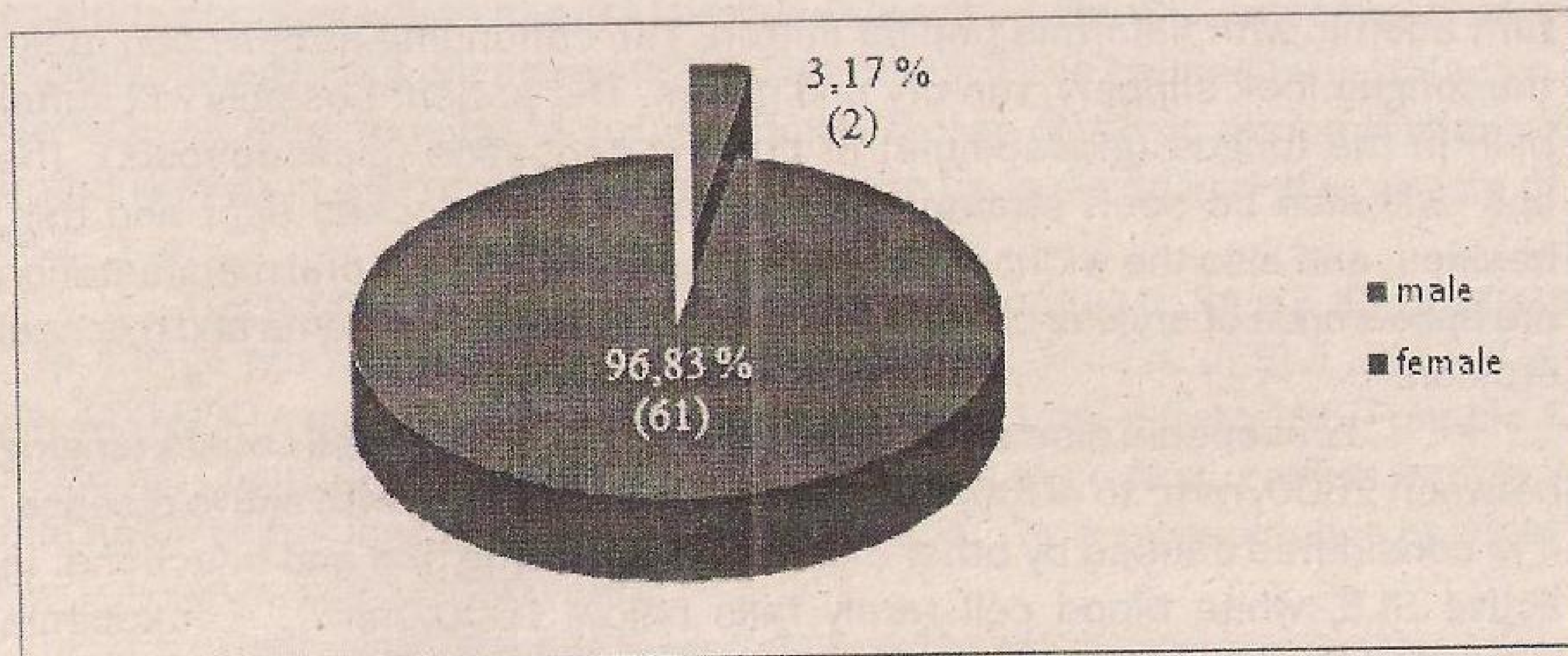

Diagram 1 The Percentage of Patients with SLE Based on Sex

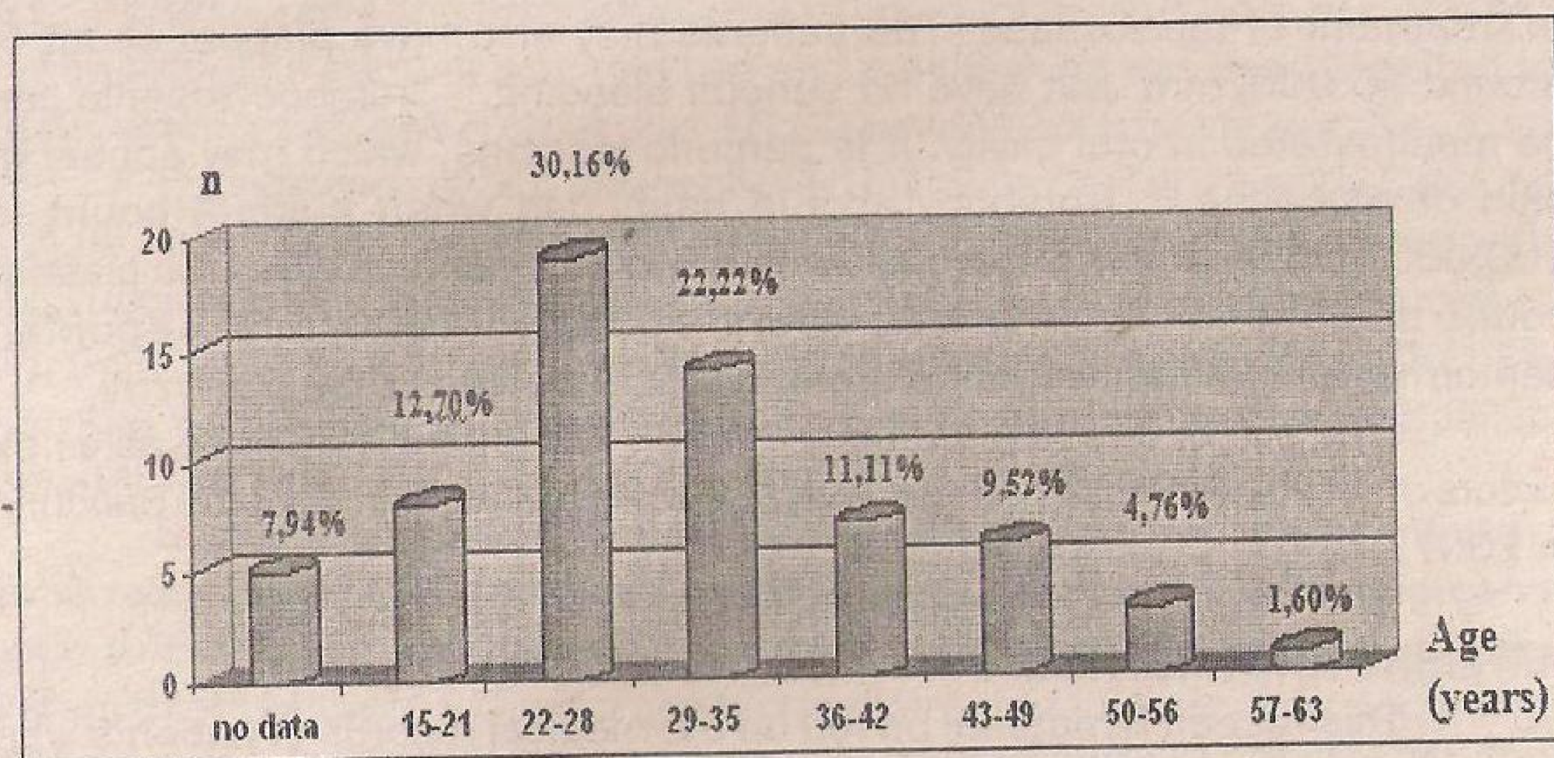

Diagram 2 The Percentage of Patients with SLE Based on Age

It is obvious from the history of hematologic disorders which have been experienced by patient, that the number of patients who have experienced anemia is 28 patients (44,4%).

Table 1. The Percentage of Patients with SLE Experienced Anemia

Hematologic Disorders	n	Percentage
Red Blood Cell count		
Anemia	28	44,4 %
No anemia	35	55,6%
Total	63	100,0%

It shows that the number of patients who have experienced leukopenia (Leukocyt count < 5000 /mm3) is 12 patients (19,0%).

Table 2. The Percentage of Patients with SLE Experienced Leukopenia

Hematologic Disorders	n	Percentage
White Blood Cell		
Leukopenia	12	19,0 %
No leukopenia	51	81,0%
Total	63	100,0%

Table 5 shows that there were only 5 people or 7,9% patients who have had trombocytopenia (Platelete count < 100.000/

Table 3. The Percentage of Patients with SLE Experienced Trombocytopenia

Hematologic Disorders	n	Percentage
Platelet count		
Trombocytopenia	5	7,9 %
No trombocytopenia	58	92,1%
Total	63	100,0%

These hematologic disease including anemia, leucopenia and thrombocytopenia are frequent in patients with SLE. It is about 49,2% of overall patients, while some other no hematologic disorders and unknown data.

DISSCUSION

The result of this observation shows that the number of female patients is higher than male. The epidemiology phenomenon of SLE often happened in women. This is related to hormone of sex. The level of estrogen is found increased in female patients with SLE.[3]

Systemic Lupus Erythematosus is found mostly happened at age of 22-28 years reaching the percentage up to 30,16%. The youngest patient is 15 years old and the eldest is 57 years old. According to epidemiology, SLE mostly happened in women at productive ages, with the highest incidence between 20 until 40 years.[3]

The highest percentage of hematologic disorders which have been experienced by patients with SLE is anemia. Autoimmune hemolytic anemia

often happened in patient with SLE. Hemolitic anemia is related to existence of autoantibody which effect erytrocytes.[2,7] Angular cheilitis can occur in patients with anemia and appears in the form of localized white fissure and bilateral in angle of the mouth. The appearance of Angular cheilitis is the result of deficiencies of vitamin B (Riboflavin B_2 and of Cyanocobalamin B_{12}), deficiencies of iron, existence of secondary infection of *Candida albicans*.[12] Other oral manifestation of anemia is a change in membrane of oral mucosa and tongue will be seen turn anemic with filiformis papilla flatten. The continuing atrophy can effect the tongue looked slippery, run dry and gleam. Patient will possibly suffer pain in the tongue (glossodynia) or burning sensation (glossopirosis) and lip will be seen strained and attenuate.[8]

Leukopenia is one of hematologic manifestations of SLE. According to table 4, there were 12 patients with SLE suffered leukopenia. Leukopenia usually reflects lymhopenia and can also caused by immunosuppressive therapy for SLE patients.[3] In condition of severe leukopenia, suspectibility to bacterial infections and ulceration of the mouth and throat as the initial manifestation is high.[9]

Other hematologic disease which also often happened in SLE patients is trombocytopenia.[3] According to (table 5) there were only 5 patients who suffered thrombocytopenia. Thrombocytopenia (plateletes count <100.000/mm^3) could happen as result of increasing phagocytosis of autoantibody-coated platelets by spleen, liver, bone marrow and lymph node macrophages.[3] The decreasing of platelets count can cause haemorrhages. In platelets count ranging about 30.000 to 50.000/mm^3 may cause excessive bruising with minor trauma and those with 10.000 to 30.000/mm^3 may develop spontaneous purpuric lesions as petechiae and ecchymosis. In patients with platelets counts below 10.000/mm^3 are at risk of internal bleeding. [11]

It can be known that hematologic diseases are found quite often and also have risk of causing oral disorders in patients with SLE. And, it is important to figure out the clinical signs which may appear in oral cavity of the patients with SLE who have hematologic disease.

CONCLUSION

According to the result, the patients with SLE at Lupus Clinic of Hasan Sadikin Hospital Bandung in 2007 who have hematologic disease such as anemia, leukopenia nd thrombocytopenia are risk factors of oral disorders. These conditions need to be considered as factors that can affect oral health. The dentist should have more consideration in SLE patients with hematologic disorders to avoid the complications after dental procedures as well.

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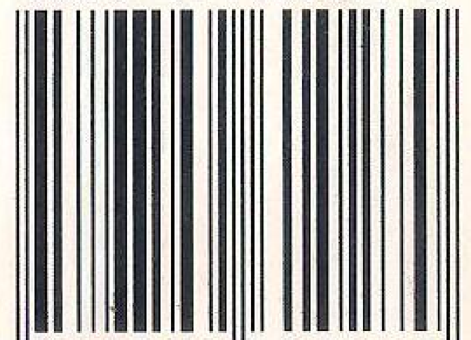
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