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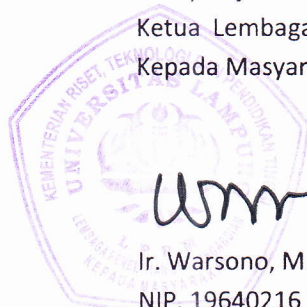

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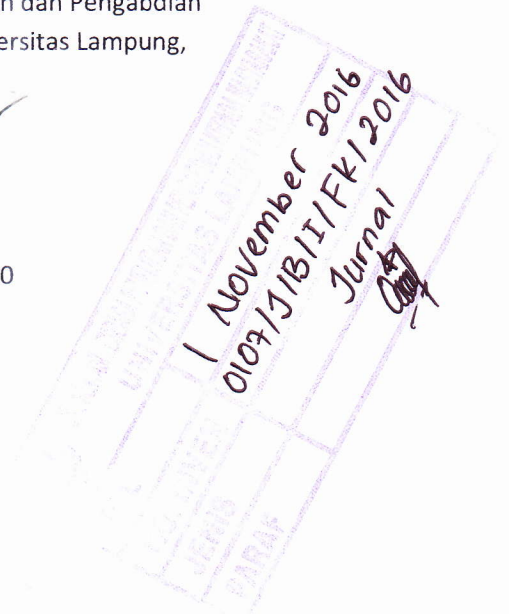


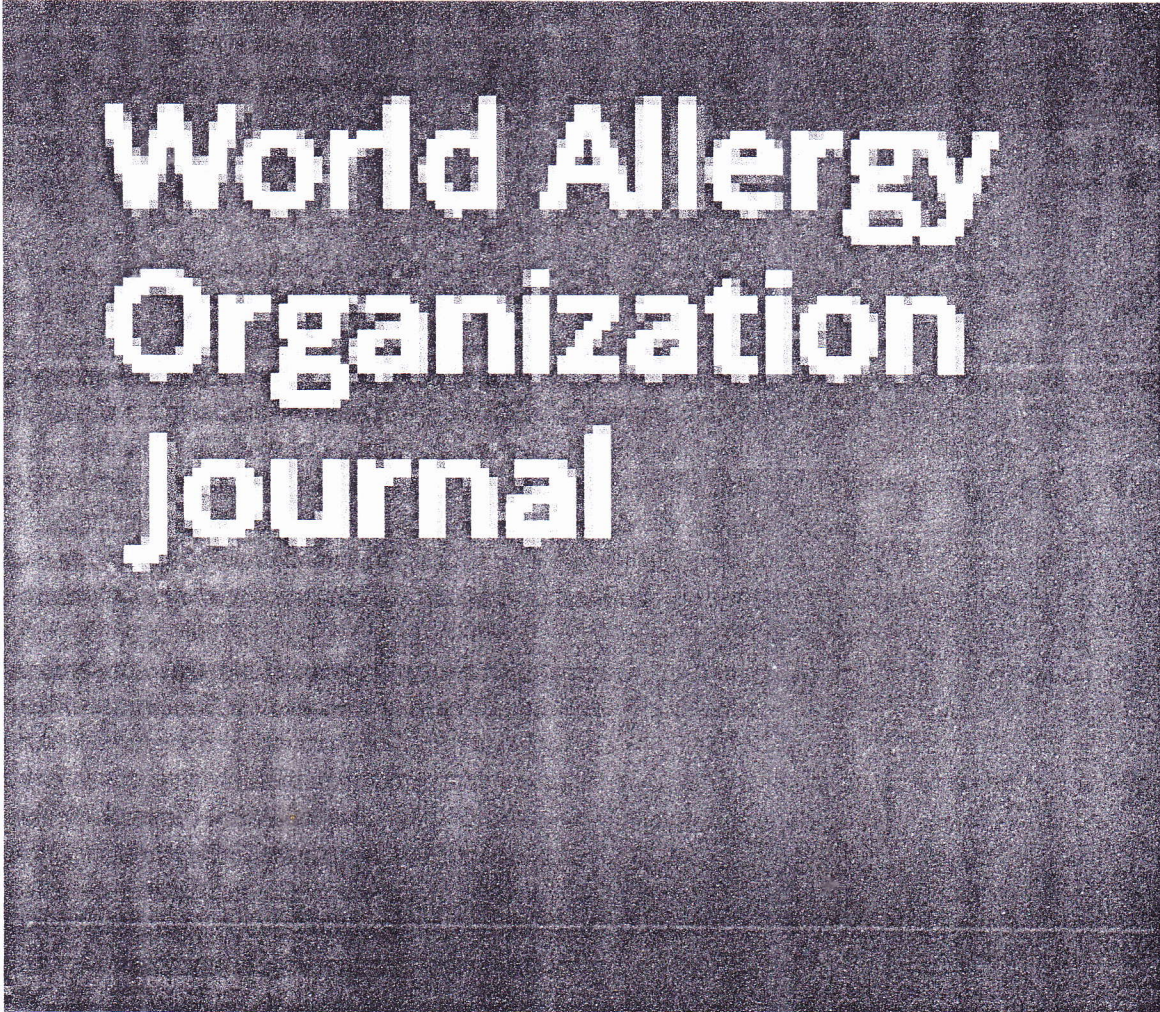
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Dear Colleagues,

Welcome to Bangkok and the XX World Allergy Congress! You are going to be part of an extremely innovative and exciting program designed to enlighten world allergists on important advances in allergy. The meeting highlights new scientific achievements, and novel approaches to the diagnosis of and concepts in the treatment of allergy, with a particular focus on immunotherapy and food allergy. The meeting hosts speakers from every corner of the world who will share unique perspectives with the international delegates encouraging lively dialogue and discussions.

The famous scientists you expect to see at a global meeting are part of the scientific program, but so are well-respected lecturers from sites less familiar at the moment but whose voices advance the science in critical ways. The meeting provides an ideal forum for the exchange of knowledge among allergists from different backgrounds. The World Allergy Congress fully and truly reflects the international nature of the World Allergy Organization. At the end of the day, you will have learned, networked, made new connections, and enjoyed yourself.

Complementing the scientific program is the social program, which has been carefully planned with varied and exciting events. And you will be enchanted with exotic, cosmopolitan Bangkok.

We are delighted you are here and are sure you will enjoy every aspect of the World Allergy Congress.



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### **Stevens Johnson Syndrome in Bandar Lampung, Indonesia**

(Abstracts: Abstracts of the XX World Allergy Congress. 2007 December 2-6, 2007, Bangkok, Thailand: POSTER GROUP 3 - WEDNESDAY: DRUG ALLERGY: 863)

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#### **Background :**

Stevens Johnson Syndrome (SJS) is severe form of erythema multiforme with related mucocutaneous disorders, often with severe constitutional symptoms and associated high rate of mortality and morbidity

#### **Objective:**

To find out the incidence, etiology, treatment, length of stay and complication.

#### **Methods:**

A 3 years retrospective study (January 1, 2004 through December 31, 2006) of patients admitted to dermatology department of Dr. Abdul Moeloek Hospital Lampung.

#### **Results:**

Among 24 cases reviewed there were 11 (45.8%) male and 13 (54.2%) female. The youngest patients was a 10 years old girl and the oldest one a 54 years old female. We assume that the causes were antibiotic (penicillin derivative) 10 (41.6%), analgesic/antipyretic 8 (33.3%), anticonvulsant (carbamazepin) 3 (12.5%), and 3 (12.5%) patient unknown. There was a variety in length of stay of hospitalization from 1 until 27 days with an average of 7.2 days. Systemic corticosteroid was the choice against fatality, 19 (79.2%), recovered 5 (20.8%) patient died, the cause of death were 3 (60%) bronchopneumonia, 1 (20%) septicemia and 1 (20%) *gastrointestinal bleeding*

#### **Conclusion :**

The incidence of Stevens Johnson Syndrome in Dr Abdul Moeloek Hospital was found female is bigger than male, the highest group of age was 24-44 (54.1%) and the drugs most commonly involved were antibiotics (41.6%) followed by analgesic/antipyretic (33.3%), bronchopneumonia was the mostly cause of death (60%)

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## INTRODUCTION

Steven Johnson Syndrome (SJS) is an emergency condition at Dermato-venerology department. SJS was initially reported in 1992 as ectodermosis erosive pluriorificialis<sup>2</sup>. The clinical symptom that found was an abnormalities on skin and mucosal with systemic symptoms, that varied from mild to severe and fatal.<sup>1,2</sup> This syndrome was named as Severe Bullous Form, Eritema Exudativum Multiforme Mayor, Erytema Bulosum Maligna.<sup>1,2,3</sup>

The most common etiology was drugs allergy like sulfa, penicillin and its derivate, non steroid anti inflammation drugs (NSAID) and anti convulsant. Another causes are viral, bacteriy, parasite or mycoplasma infection, neoplasm, vaccination, pregnancy, radiology and some symptom that patient did not recognize the etiology.<sup>1,2,3</sup>

This syndrome pathogenesis was unknown, was suspected occur when the affect oh hypersensitivity reaction, and aggregrassion of Imunoglobulin M cells, complement (C3) and fibrin from skin tissue.<sup>1,2</sup>

The clinical symptoms were varied, occurred between 1-14 days with prodromal symptoms such as fever, malaise, respiratory infection, vomit, pain swallowing, then followed with skin lesion such as irish type eritematous macula, papuls, vesicles and bulous, sometimes with purpura. The distribution occur symmetrically on the back, hand and leg, lesion on mucose occur on mouth, eye and genitalia organ.<sup>(1,2,3)</sup>

SJS have a tendency to increase as use of broad spectrum drugs like antibiotics and anti pyretic which sold freely.<sup>4</sup>

This syndrome cured well in 2-3 weeks if occur on genitalia mucose that caused balanitis or vulvovaginitis, symblefaron, cornea ulcer, anterior uveitis and panophthalmitis.<sup>2,3</sup>

The prognosis was depended from the speed and the accuracy given to the patient and the complication that may happen. The most common complication were pneumonia, sepsis and kidney failure, sometimes gastrointestines bleeding.<sup>1,2,3</sup>

The treatment commonly to treat the fluid and electrolyte imbalance, the hypersensitivity, prevent and treat the secondary infection and also eliminate the causing factor.<sup>1</sup>

The aim of this retrospective study is to study the SJS patients that admitted at Dermato-venerology department of Dr. H. Abdul Moeleok hospital Bandar Lampung, during January 2<sup>nd</sup>, 2004 until December 31<sup>th</sup>, 2006.

## MATERIAL AND METHOD

This study used retrospective method based on medical record SJS patient that admitted at IRNA 2 ward of Dr. H. Abdul Moeleok hospital Bandar Lampung during January 2<sup>nd</sup>, 2004 until December 31<sup>st</sup>, 2006. Had been recorded by gender, age, causing drug, treatment, admitted period, complication and the patient status when discharged.

SJS diagnosed by anamnesis particularly history of drug that was suspected the cause of the clinical sign and symptoms such as skin lesion, abnormalities on mouth and eye mucose and also the constitutional symptom.

## RESULT

During January 2<sup>nd</sup> 2004 until December 31<sup>th</sup> 2006 at Dermato-venerology department of Dr. H. Abdul Moeloek hospital Bandar Lampung, had been admitted 24 SJS patients consisted of 11 male, and 13 female (table 1), with the youngest age was 10 years old and the oldest was 54 years old. The most incidence at the age of 24 – 44 years old, was 13 patients. And 13 to 23 years old, were 9 patients (table 2).

The drug was suspected as the most caused was, repetitively, was peniciline group 10 patients, analgetic/antipyretic was 8 patients, carbamazepine was 3 patients and 3 patients was unknown (table 3).

Intravenous corticosteroid and gentamycin antibiotic was given to all the patients. Treatment period was 1 – 27 days. With average was 7,2 days (table 4).

The most complication that happened during the treatment was bronchopneumonia 3 patients (60%), sepsis was 1 patient (20%) and gastrointestinal bleeding 1 patient (20%), these were the caused of death of these patients. (table 5)

## DISCUSSION

As January 2004 until December 2006 period at Dermato-venerology department of Dr. H. Abdul Moeloek hospital Bandar Lampung, there was 24 patients of SJS that had been found consisted of 11 males and 13 females.

The higher frequency of female patients was similar to some studies at various hospital like Schopt reported in West Germany (ratio 2:1),<sup>5</sup> Sidabutar NT et all in Surabaya Indonesia (28-71,8% female and 11-28,2% male)<sup>6</sup>, Wartini R. et all in Bandung Indonesia (9-90% female and 1-10% male)<sup>7</sup>, Rikyanto et all in Jogjakarta Indonesia (10-76,9% female and 3-23,1% male)<sup>8</sup> but Indha IGAS et all in Denpasar and Waworuntu LV et all in Manado reported just the opposite which male was more than female.<sup>4,9</sup>

Most patients were at the age between 24-44 (54,1%), that similar to Sidabuntar NT et all in Surabaya, Waworuntu LV et all in Manado, Wartini R. et all in Bandung and Rikyanto et all in Jogjakarta.<sup>6,7,8,9</sup>



From the anamnesis was suspected that most of the causes were peniciline group, was 10 patients, analgetic group 8 patients, carbamazepine 3 patients and 3 patients was unknown. These were similar to the report by Schoft et all in West Germany<sup>5</sup> and that found in some center of medicine in Indonesia, reported by Wartini et all in Bandung and Waworuntulu LV et all in Manado.<sup>7,9</sup> Whereas in Seattle (USA), Surabaya and Jogjakarta was anticonvulsant.<sup>6,8,10</sup>

Peniciline was the most common cause because until now this drug was still used freely with a various of brand and easy to get and oftenly the patient having less information for the adverse effect.<sup>9</sup> Anticonvulsant like phenobarbital and carbamazepine was the cause on epileptic patient who came to the Neurology department, this drugs has been used so many because its cost relatively cheaper that the other anti convulsant.<sup>8,9,10</sup>

Analgetic and antipyretic had been long known as one of the cause of adverse effect (EEM mild until SJS).<sup>1,9</sup> Patient with unknown causative factor were further examined, because despite of the SJS drug could also caused by bacteria, viral, parasite or mycoplasma infection, neoplasm, vaccination, pregnancy and also radiotherapy.<sup>1,3</sup>

The given treatment to all the patient was intravenous corticosteroid and fluid therapy, because usually patient admitted were in a severe condition and difficult to swallow.

Corticosteroid treatment with dexamethasone from dosage of 20-30 mg divided with 3 dosages, depending on the severity of the disease and body weight, dosage was maintenance for some days, than tapering off until improvement. If the patient condition was improved and able to swallow, drug was changed with prednisone tablet as its equivalent dosage than tapering off.

Antibiotic was given intravenous gentamicin to the entire patient. This antibiotic is meant to avoid and cure the secondary infection.

SJS patient admission period was varied between 1-27 days, the shortest time was 1 day and the longest was 27 days with average 7,2 days. As a comparison at LDS Hospital Salt Lake City (USA) average was 7,69 days, in Surabaya was 4-27 days, in Bandung was 3-16 days, in Jogjakarta was 3-24 days and in Manado 2-28 days.<sup>6,7,8,9,11</sup>

The complication was happened to 5 patients (23,1%), 3 patients was bronchopneumonia, 1 patient was sepsis and 1 patient was gastrointestinal bleeding, that these are the cause of the death of them. The morbidity rate was higher, 23,1 % almost similar to Waworuntu et all reported was 21,7%<sup>8</sup>, but higher than Pindha GAS reported 13,3%, Rikyanto et all was 7,69% and Sidabutar et all 5%,<sup>5,6,8</sup> whereas according literature, SJS death approximately 3-25%, these 4 cases probably happened because many patients came to hospital in severe and late condition, where 3 patients passed away after 1 day admission. There were also 2 patients discharged at the family demand. (table 5).

## CONCLUSION

The incidence of Steven Johnson Syndrome in Dr. H. Abdul Moeloek hospital Bandar Lampung was found female is bigger than male, the highest group of age was 24-44 (54,1%) and the drugs most commonly involved was antibiotics (41,6%) followed by analgesic antipyretic (33,3%), brochopneumoni was the mostly cause of death (60%).

Table 1. Steven Johnson Syndrome admitted at Dr. H. Abdul Moeloek hospital Bandar Lampung 2004-2006 based on gender.

Year	Male	Female	Total
2004	4	6	10
2005	2	3	5
2006	5	4	9
<b>Total</b>	<b>11</b>	<b>13</b>	<b>24</b>

Table 2. Steven Johnson Syndrome admitted at Dr. H. Abdul Moeleok hospital Lampung 2004-2006 based on age.

NO	Ages	2004	2005	2006	Total
1	< 12	1	-	-	1
2	13-23	4	2	3	9
3	24-44	5	3	5	13
4	45-65	-	-	1	1
5	65>	-	-	-	-
	<b>Total</b>	<b>10</b>	<b>5</b>	<b>9</b>	<b>24</b>

Table 3. Steven Johnson Syndrome admitted at Dr. H. Abdul Moeleok hospital Bandar Lampung 2004-2006 based on was suspected as the causative drugs

NO	Drug	Total	%
1	Peniciline group	10	41,7
2	Analgetic/antipyretic	8	33,3
3	Carbamazepine	3	12,5
4	Unknown	3	12,5
	<b>Total</b>	<b>24</b>	<b>100</b>

Table 4. Steven Johnson Syndrome admitted at Dr. H. Abdul Moeleok hospital Bandar Lampung 2004-2006 based on admission period

Total Patient	Admission period/patient	Total admission day
4	1	4
2	4	8
3	6	18
4	7	28
2	9	18
1	10	10
1	12	12
1	15	15
1	16	16
1	23	23
1	27	27
	<b>Average</b>	<b>7,2</b>

Table 5. Discharged condition of Steven Johnson Syndrome patients admitted at Dr. H. Abdul Moeleok hospital Bandar Lampung 2004-2006 based on admission period.

Discharged condition.	Total	%
Cured	17	53,8
Passed away	5	23,1
Discharged with own demand	2	23,1
Total	24	100

Table 6 . Complication of Steven Johnson Syndrome patients admitted at Dr. H. Abdul Moeleok hospital Bandar Lampung 2004-2006 based on admission period.

Complication	Total	%
Bronchopneumoni	3	60
Sepsis	1	20
GIT bleeding	1	20
Total	5	100

## REFERENCES

1. Fritsch OP, Ramon RM, Erythema Multi forme, Steven Johnson Syndrome and Toxic Epidermal Necrolysis. In Fitzpatrick TB, Eisen HZ, Wolf K, Frenberc IM, Austin KF, editor , *Dermatology in General Medicine*. 6th edition, New York : McGraw-Hill Inc, 2003: 543-556.
2. Odom RB, James WD, Berger IQ *Andrew's disease of the skin*. 9th edition . Philadelphia : WB Saunders Co, 2000 : 136 - 139.
3. Breathnach SM, Erythema Multiforme., Steven Johnson Syndrome and Toxic Epidermal Necrolysis. In Burns S, Breathnach S, Cox N, Griffiths editor. *Rook's Textbook of Dermatology*. 7th edition, Massachusetts , Blackwell, 20A4 : 751 - 52.
4. Pindha IGAS., Bratiartha M, Adiguna SM, Wardhana M. Sindroma Stevens Johnson di RSUP Denpasar. *Kumpulan Makalah Ilmiah Kongres Nasional PERDOSKI, Bukittinggi, 1992 : 152 - 57.*
5. Schopf E, Stuhmer A, Rzany B, Victor N, Zentgraf R, Kapp JF. Toxic epidermal necrolysis and Stevens-Johnson syndrome : an epidemiologic study from West Germany. *Arch Dermatol*. 1991 ; 127 : 839-842.
6. Sidabutar NT, Noor RM, Lumintang H, Martodihardio S. Sindroma Stevens Johnson di RSUD Dr. Sutomo Surabaya. *Kumpulan Makalah Ilmiah Konas VII PERDOKSI, Bukittinggi 1992 : 1287 -95.*
7. Wartini Rm Sasmojo, M, Adi S. Tinjauan retrospektif pasien Stevens Johnson Syndrom di Bagian / SMF IP Kulit dan RSUP Dr. Hasan Sadikin Bandung, *MDVI 2001 : 21S - 23S.*
8. Rikyanto, Etnawati K. Peneliti an Retrospektif kasus Sindroma Stevens Johnson selama 5 tahun kemungkinan oleh karena karbamazepin di bangsal kulit Rumah Sakit DR. Sardjito, Yogyakarta *Kumpulan Makalah Ilmiah Kongres Nasional PERDOSKI , Bukittinggi 1992 : 1354 - 58.*
9. Waworuntu LV Niode NJ, Pandelake, HEJ, Warouw WFI. Sindroma Stevens Johnson Di Bagian I.P. Kulit dan Kelamin RSUP Manado. Januari I 998-Desember 2002. *MDVI 2004 : 187 - 190.*
10. Chan HI, Stern RS, Arndt kA, Langlois J, Jick SS, Jick H, and Walker AM, The incidence of erythema multiforme, Stevens Johnson syndrome and toxic epidermal necrolysis. A population based study with particular reference to reactions caused by drugs among outpatients, *Arch Dermatol*, 1990: ; 125 :43. Classen DC, Pestitnik SL, Evans RS, Lyoyd JF, and Burke JP, Adverse drug eents inhospitalized patients. Excess length of stay, extracost, and attributable mortality, *JAMA*, 1997 : 227.
11. Clasen DC, Pestinik SL, Evans RS, Lyiod JF, and Burke JP, Adverse drug reaction ib hospitalized patients, Excess length of stay ,extracost, and atributable mortality, *JAMA*, 1997 : 227. ,