Distribution and Development of the TCM Syndromes in Psoriasis Vulgaris

ZHANG Guang-zhong 张广中 1, WANG Ju-sheng 王家生 1, WANG Ping 王萍 1, JIANG Chun-yan 姜春燕 1, DENG Bing-xu 邓丙戌 1, LI Ping 李萍 2, ZHAO Yi-ming 赵一鸣 3, LIU Wa-li 刘瓦利 4, QU Xing 瞿幸 5, CHEN Wei-wen 陈维文 1, ZENG Lin 曾琳 3, ZHOU Dong-mei 周冬梅 1, SUN Li-yun 孙丽云 1 & LI Ruo-ru 李若瑜 6

1Department of Dermatology and Venereology, Beijing TCM Hospital Affiliated to the Capital Medical University, Beijing 100010, China
2Beijing Institute of Traditional Chinese Medicine
3Research Centre of Clinical Epidemiology, the Third Hospital of Beijing University
4Department of Dermatology and Venereology, Guanganmen Hospital Affiliated to China Academy of Chinese Medical Sciences
5Department of Dermatology and Venereology, Dongzhimen Hospital Affiliated to Beijing University of Chinese Medicine
6Department of Dermatology and Venereology, First Hospital of Beijing University

Objective: To study the distribution and development rules of the TCM syndromes in psoriasis vulgaris.

Methods: Based on the clinical epidemiologic mass survey, the study was carried out by means of a status survey, multi-center and large-sample research. The data base was set up by EPIINFO6.0. The SPSS was used to do the statistical analyses in 2651 cases of psoriasis vulgaris to study the correlations among the distribution and development of the TCM syndromes, the stages of the disease, nationality, psoriasis history, family history, smoking history, alcohol drinking history, and severity of the disease. Results: The TCM syndromes in psoriasis vulgaris mainly include the blood-heat syndrome (53.8%), blood-dryness syndrome (27.4%), and blood-stasis syndrome (18.1%). Other syndromes were rarely seen, covering 0.6%. The concurrent syndromes mainly involve dampness, heat, blood stasis and toxin. The distribution differences of the main syndromes at different stages of the disease had statistical significance (P<0.01). The syndrome distribution is not related with nationality and family history (P>0.05), but it was closely related with the psoriasis history, smoking history, alcohol drinking history, and severity of the disease (P<0.01). Conclusion: At the initial stage, psoriasis vulgaris usually manifests itself as the blood-heat syndrome, and later it may be improved or turn into the blood-dryness or blood-stasis syndrome. Smoking, alcohol consumption, and severity of the disease may play a role in the syndrome’s transformation.

Based on a clinical epidemiologic mass survey, the authors conducted the study on distribution and development rules of the TCM syndromes in psoriasis vulgaris by means of a status survey, as well as multi-center and large-sample research.

CLINICAL DATA

Source of Cases

All the 2651 cases of psoriasis vulgaris in this series, out- or inpatients from the Department of Dermatology and Venereology of Beijing TCM Hospital Affiliated to the Capital Medical University, Guanganmen Hospital Affiliated to China Academy of Chinese Medical Sciences, and Dongzhimen Hospital Affiliated to Beijing University of Chinese Medicine.
The Diagnostic Criteria

The diagnostic criteria for psoriasis vulgaris were made based on The Criteria for Diagnosis, Cure and Improvement of Clinical Diseases. The diagnostic criteria for the TCM syndromes of the disease were made based on The Differential Diagnostics of TCM Syndrome Complex, and in referring to the experiences of some TCM and Western dermatological experts in Beijing, such as ZHAO Bing-nan, ZHU Ren-kang and JIN Qi-feng. And the syndromes were classified as the basic syndrome and concurrent syndrome.

The basic syndrome complex: 1) The blood-heat syndrome: Spot-like skin rash occurred and quickly develops, accompanied with flush in the damaged skin area. New skin rash appears continuously, with profuse squamae, which could not cover the red spots, and could easily strip in the surface and tightly attach to the skin at the bottom; and cribriform hemorrhagic spots appeared after stripping of the squama. There was obvious itching, often accompanied with general symptoms of dry mouth and tongue, constipation, vexation and peevishness, and scanty, yellow urine. The tongue proper was red or dark red with thin-white or slightly yellow coating, and the pulse was wiry-slippery or rapid. 2) The blood-dryness syndrome: The duration of the illness was quite long, with rare appearances of new skin rash. The damaged skin was in pale-red color. The shape of the rash could be coin-like or merge in patches, mostly infiltrative and thickened. There was little squamae. The tongue proper was pale with thin-white or little coating, and the pulse was deep-thready or wiry-thready. 3) The blood-stasis syndrome: The damaged skin was dark red in color, infiltrative, thickened and long lasting. The squamae were quite thick, some of which were like shells. The tongue proper was dull or sometimes with ecchymoses, and the pulse was hesitant or thready.

The concurrent syndrome complex: 1) Concurrent with toxins: There were pustulae in the damaged skin area, and or complications of some infective diseases, such as pharyngitis and tonsillitis. 2) Concurrent with dampness: The damaged skin was sticky or with exudate. The tongue coating was white-sticky or yellow-sticky. 3) Concurrent with blood stasis: The damaged skin was rough and thickened with obvious infiltration. The tongue proper was dull, sometimes with ecchymoses or petechiae. 4) Concurrent with heat: The damaged skin was red, and the tongue proper was also red. 5) Concurrent with wind: There were the symptoms of fever, aversion to wind, or accompanied with itching of throat, cough, nasal obstruction, nasal discharge, and floating pulse. The skin damage developed very quickly, and could spread all over the body, with obvious itching sensation. 6) Concurrent with dryness: The damaged skin was dry, with obvious itching sensation.

The Criteria for Stage-Division

The course of psoriasis vulgaris can be divided into three stages. The active stage: At this stage, new skin rash kept appearing, and the old rash kept broadening, with thickening of the squamae, and obvious inflammation. Inflammatory red signs appeared around the damaged skin area, with obvious itching sensation.

The resting stage: At this stage, the condition was at a standstill, basically no new rash appeared, and no old rash disappeared.

The regressive stage: At this stage, the inflammatory infiltration was disappearing, the squamae was decreasing, and the skin rash became smaller and flat with the surrounding skin becoming pale in color. There may be spots left, indicating a decrease of pigmentation.

The Criteria for Enrollment

Any patient, who met the diagnostic criteria of psoriasis vulgaris and agreed to participate and cooperate well in the survey, could be enrolled in the research.
METHODS

Design of the Survey Form
Considering the problems relevant to psoriasis vulgaris and following the general rules and methods for making the epidemiological form of survey, the subject group first designed a form of survey about the standard research on CM differentiation for psoriasis vulgaris cases, which involved the patient’s general state, life habits, the occurrence of the illness, the causative factors, the four TCM diagnostic methods, and the dermatological conditions. After preliminary tests, experts in clinical practice, TCM syndrome-differentiation and clinical epidemiology jointly made some modifications and evaluations for the form of survey, and then determined the formal form of survey.

Survey Methods
Doctors involved in the epidemiological survey should be those who had engaged in TCM and integrated TCM and Western epidemiological clinical work for more than 3 years. Training courses were held for them, including the identification of all the items in the form of survey, the determination on skin damage and severity of the disease by the four TCM diagnostic methods, the TCM criteria for the syndrome type-differentiation of psoriasis vulgaris, and the correct way to complete the survey form. The patients under the survey were asked to render good cooperation, give exact answers, and have reliable memories. The severity of the illness was evaluated based on the skin area covered by psoriasis vulgaris and the severity index of the disease. Based on the value of Psoriasis Area Severity Index (PASI), the severity of the disease was divided into three degrees, namely, mild (PASI≤3), moderate (PASI 3–15), and severe (PASI >15).

Statistical Methods
The data base was set up by EPIINFO6.0. The work was done to ensure the accurateness and reliability of all data in the study. In the course of the survey, some cases were found with incomplete data. Therefore, statistical analyses was conducted on the existing data. The locked database was transformed into an SPSS data base, and the statistical analyses was carried out with software package SPSS12.0. The enumeration data was described with frequency and constituent ratio. The hypothesis testing was done for chi-square test. The measurement data was shown by mean ± standard deviation (SD). And hypothesis testing was done for single factor analysis of variance.

RESULTS

General Data
Three hospitals had conducted the survey in 2651 cases of psoriasis vulgaris, including 1544 male cases (58.2%) and 1107 female cases (41.8%), aged from 4 to 91 years (mean, 37.43±15.15 years), with the duration of the illness from 1 week to 65 years (mean 10.60±10.42 years). In this series, 2532 cases (95.5%) were from Han nationality, and 119 cases (4.5%) were from minority nationalities. 1827 cases (68.9%) lived in Beijing; 708 cases (26.7%) had the family history of psoriasis vulgaris, and 667 cases (25.2%) had had their attack for the first time.

The TCM Syndrome Differentiation
In this series, 1427 cases (53.8%) belonged to the blood-heat syndrome, 727 (27.4%) belonged to the blood-dryness syndrome, 480 (18.1%) belonged to the blood stasis syndrome, and 17 (0.6%) belonged to other syndromes. And, 1448 cases (55.2%) were concurrent with other syndromes, among whom 618 (42.7%) were mixed with dampness; 34 (23.5%) with heat; 227 (15.7%) with blood stasis; 146 (10.1%) with toxins; 78 (3.0%) with wind; and 38 (1.4%) with dryness.

Distribution of the Main Syndromes
1. For the relationship between the TCM basic syndromes of psoriasis vulgaris and the stages of the disease, see Table 1.
Table 1. Relationship Between TCM Basic Syndromes of Psoriasis Vulgaris and the Stages of the Disease (cases, %)

<table>
<thead>
<tr>
<th>Type of Syndrome</th>
<th>n</th>
<th>Active Stage</th>
<th>Resting Stage</th>
<th>Regressive Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood-heat</td>
<td>1368</td>
<td>842 (60.8)</td>
<td>490 (35.4)</td>
<td>54 (3.9)</td>
</tr>
<tr>
<td>Blood-dryness</td>
<td>710</td>
<td>94 (13.2)</td>
<td>391 (55.1)</td>
<td>225 (31.7)</td>
</tr>
<tr>
<td>Blood stasis</td>
<td>470</td>
<td>44 (9.4)</td>
<td>378 (80.4)</td>
<td>48 (10.2)</td>
</tr>
</tbody>
</table>

Table 1 suggests that the distribution differences of the basic syndromes of blood-heat, blood-dryness and blood stasis at different stages had a statistical significance ($P<0.01$). The blood-heat syndrome mainly appears at the active stage, and the blood-dryness and blood-stasis syndromes appear mainly at the resting stage.

2. For the distribution of basic TCM syndromes of psoriasis vulgaris in different nationalities, as well as in family history of the disease, and in other aspects, see Table 2.

Table 2. Distribution of the 3 Syndromes in Relation to Nationality, Case history, Family history, Smoking history and Alcohol Consumption History (Cases, %)

<table>
<thead>
<tr>
<th>Type</th>
<th>Han</th>
<th>non-Han</th>
<th>Yes</th>
<th>No</th>
<th>Initial</th>
<th>Recurrence</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood-heat</td>
<td>1368</td>
<td>594 (49.6)</td>
<td>368 (52.3)</td>
<td>1051 (54.8)</td>
<td>445 (67.4)</td>
<td>982 (49.7)</td>
<td>420 (54.5)</td>
<td>1007 (54.8)</td>
<td>204 (56.2)</td>
<td>1223 (53.9)</td>
</tr>
<tr>
<td>Blood-dryness</td>
<td>688</td>
<td>394 (32.8)</td>
<td>218 (31.0)</td>
<td>507 (26.4)</td>
<td>148 (22.4)</td>
<td>579 (29.3)</td>
<td>166 (31.7)</td>
<td>560 (30.1)</td>
<td>73 (20.1)</td>
<td>654 (28.8)</td>
</tr>
<tr>
<td>Blood stasis</td>
<td>459</td>
<td>214 (17.6)</td>
<td>117 (16.6)</td>
<td>361 (18.8)</td>
<td>67 (10.2)</td>
<td>413 (20.9)</td>
<td>184 (23.9)</td>
<td>296 (15.9)</td>
<td>86 (23.7)</td>
<td>394 (17.3)</td>
</tr>
<tr>
<td>Total</td>
<td>2515</td>
<td>199 (100)</td>
<td>703 (100)</td>
<td>1919 (100)</td>
<td>660 (100)</td>
<td>1974 (100)</td>
<td>771 (100)</td>
<td>1863 (100)</td>
<td>363 (100)</td>
<td>2271 (100)</td>
</tr>
</tbody>
</table>

Table 2 suggests that the distribution differences of the three syndromes of psoriasis vulgaris do not have statistical significance with nationality, and family history ($P>0.05$), but they have statistical significance with the case history, smoking history, and alcohol consumption history ($P<0.01$).

3. For relationship between the severity of psoriasis vulgaris and its basic TCM syndromes, see Table 3.

Table 3. Relationship Between the Severity of Psoriasis Vulgaris and its Basic TCM Syndromes (Cases, %)

<table>
<thead>
<tr>
<th>Severity</th>
<th>n</th>
<th>Blood-heat</th>
<th>Blood-dryness</th>
<th>Blood-stasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>375</td>
<td>179 (47.7)</td>
<td>153 (40.8)</td>
<td>43 (11.5)</td>
</tr>
<tr>
<td>Moderate</td>
<td>1611</td>
<td>896 (55.6)</td>
<td>433 (26.9)</td>
<td>282 (17.5)</td>
</tr>
<tr>
<td>Severe</td>
<td>362</td>
<td>224 (61.9)</td>
<td>58 (16.0)</td>
<td>80 (22.1)</td>
</tr>
</tbody>
</table>

DISCUSSION

The results of this study show that in psoriasis vulgaris, the blood-heat syndrome is the most commonly seen, and the blood-dryness syndrome and blood-stasis syndrome are second. The syndrome distributions are closely related with the stages of the disease: the blood-heat syndrome is mostly seen at the active stage; the blood-dryness syndrome is mostly seen at the resting and regressive stages; and the blood-stasis syndrome is mostly seen at the resting stage, indicating that the patients at the early stage of the initial attack or recurrence of the disease would be manifested by the blood-heat syndrome; while along with the passage of time or the disappearance of the damaged skin, the blood-heat syndrome would turn into the blood-dryness or blood-stasis syndrome. The above conclusion is in accordance with the past reports.10, 11
The causative factors of psoriasis vulgaris are very complicated, and the condition varies. The basic syndromes of blood-heat, blood-dryness and blood-stasis do not reflect the entire pathogeneses of the disease. Researches have proved that 55.2% of the patients are accompanied with concurrent syndromes, among whom 42.7% were mixed with damp, and, in turn, mixed with heat, blood stasis, toxins, wind, and dryness. Therefore, in the treatment, careful differentiation should be made first, so as to make clear the basic syndrome and the concurrent syndromes. Only by doing so, can the Chinese herbal prescription be targeted in a manner that will increase the therapeutic effects.

There is no connection between the basic syndrome distribution of psoriasis vulgaris and the nationality and family history of the patient, indicating that the basic syndrome distribution of this disease is not directly related genetic. The basic syndromes of the disease are, however, closely related with the case history, the smoking history and the alcohol consumption history of the patient. The initial attack of the disease is mainly manifested by the blood-heat syndrome, while the recurrence of the disease tends to be manifested by the blood-dryness and blood-stasis syndromes. Patients having a smoking history and an excessive alcohol consumption history would have the blood-stasis syndrome, while those with non-smoking and non-alcohol drinking history tend to have the blood-dryness syndrome. Therefore, smoking and alcohol drinking may be one of the factors that causes the attack and determines which type of syndrome of psoriasis vulgaris. The value of PASI is also closely related with the syndrome distribution of psoriasis vulgaris. Along with the rising of PASI value, i.e. the aggravation of the condition, the ratios of the blood-heat syndrome and the blood-stasis syndrome are rising, while the ratio of the blood-dryness syndrome is decreasing.

Based on the above results, we can infer that the developmental rules of TCM syndromes of psoriasis vulgaris are as follows: At the active stage of the disease, it may be manifested as the blood-heat syndrome, which will later develop in two ways. One way is that for most of the patients, under proper care and treatment, the disease will develop into a regressive stage, and then the syndrome will not transform into other syndromes; if, for some reasons, the alleviation of the damaged skin is very slow or the disease develops to the resting stage, the blood-heat syndrome would turn into the blood-dryness syndrome. The other way is that for a small number of the patients, owing to body constitution, emotional factors, delayed treatment, smoking and/or alcohol drinking, the disease turns from the active stage to the resting stage, when the blood-heat syndrome would transform to the blood-stasis syndrome or the blood-dryness syndrome. The blood-heat syndrome is relatively easy to treat with good prognoses. The blood-dryness and blood-stasis syndromes are relatively difficult to treat, with slow recovery of the damaged skin. In particular, the blood-stasis syndrome would be very intractable, with repeated attacks, which would seriously affect the patient’s quality of life.

REFERENCES


(Translated by WANG Xin-zhong 王新中)