慢性疼痛とアレキシサイミア
——「痛みについての質問票」の結果から

【要旨】
慢性疼痛を主訴に山形大学医学部精神神経科と山形県立中央病院精神科を受診し、DSM-III-Rで「身体表現性疼痛障害」の診断基準を満たす患者48名について、心理検査として「痛みについての質問票」、CMI、MMPIを施行し、その心理特性と治療予後にについて考察を加えた。

1) これら対象に関し、精神科での診察時の中間から、心理的特徴としてのアレキシサイミア傾向の有無について検討した。その基準として、①不安、抑うつ、攻撃性などの感情表現に乏しい、②身体症状に対するこだわりの強さ、③精神療法的介入の困難さ、の3点について検討し、すべてを満たすものをアレキシサイミア群、①③のいずれにも該当しないものを非アレキシサイミア群、その他を中間群とした。その結果、14名がアレキシサイミア群、21名が非アレキシサイミア群、13名が中間群と分類された。

2) 対象者全員に「痛みについての質問票」の記入を依頼したところ、48名中46名が質問項目のII, IV, 5, III, IIのいずれかで高得点を示した。

CMIは40名に施行し、I領域が4名、II領域が14名、III領域が10名、IV領域が12名という結果であった。

MMPIは28名に施行し、8名が正常プロフィール、9名が"conversion V"プロフィール、9名がその他の神経症状スケールの高値を示し、1名はその他の病的プロフィールを示した。

3) 「痛みについての質問票」で精神症状を示すIII, II, 5の得点総計を、身体的苦痛を示すII, IVの得点総計で割った値（アレキシサイミア傾向スコア）を比較したところ、アレキシサイミア群の平均値は非アレキシサイミア群の平均値に比べ、有意に低かった。

同様に、CMIでIII, IV領域に属するものの数を比較したところ、アレキシサイミア群の数が、非アレキシサイミア群の数に比し、有意に少なかった。

MMPIの"Alexithymia Scale"をアレキシサイミア群と非アレキシサイミア群で比較したが、その平均値に有意差は認められなかった。

4) 治療の予後をアレキシサイミア群、非アレキシサイミア群で比較したところ、非アレキシサイミア群の方が薬物療法や精神医学的治療に対する反応がよかった。

5) 各種心理検査、治療の結果から分かるとおり、慢性疼痛と診断される患者の心理機制が一様ではなく、それぞれの特性に応じた治療技法を考える必要がある。「痛みについての質問票」の結果から得られる「アレキシサイミア傾向スコア」は、慢性疼痛患者の中でのアレキシサイミア傾向を有する患者の判定に有用であり、治療法の選択や予後の判定に補助的に行うことが可能と考えられた。
Chronic Pain and Alexithymia
—From the results of a “Questionnaire on Pain”

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Yukiko Morioka, MD  Shiro Totsuka, MD

Introduction

The disease which has been called “Psychogenic Pain” is now mostly diagnosed as “Somatofrom Pain Disorder” according to DSM-III-R, and that is usually used as almost the same meaning as “Chronic Pain”. Different from “Psychogenic Pain Disorder” of DSM-III, whose criteria involved the item which says “Psychological factors are judged to be etiologically involved in the pain”, the diagnostic criteria of “Somatoform Pain Disorder” (DSM-III-R) as a whole consists of exclusion of somatic pain. As a result psychogenic pain disorders derived from many kinds of psychological mechanisms are contained in this diagnosis. From the standpoint of therapy for these pain patients, it is important to know their psychological problems in order to make plans for the therapeutic strategy.

Chronic pain patients are often difficult to treat. And it is said that one of the factors is due to their alexithymic characteristics. We have tried to find the ways of alexithymia in chronic pain patients using several tests and explored their prognosis from the standpoint of alexithymic characteristics.

Subjects and Methods

The subjects are 48 patients who were referred from other clinics to the outpatient clinics of the Department of Neuro-Psychiatry of Yamagata University Hospital and the Division of Psychiatry of the Yamagata Prefectural Central Hospital and their chief complaints were pains which were difficult to explain on the basis of somatic origins.

The subjects are 23 men and 25 women, whose ages ranging from 16 to 74 years old (the mean age: 45.6±15.4 years old). The durations from the onset of their pains to their visits to our outpatient clinics ranged from 3 months to 20 years (the mean period: 43.5±57.7 months). The locations of their pains are shown in Table 1. Their diagnoses concerning their pains when they were referred to us included psychogenic pain (14), lumbago including protrusion of intervertebral disc of lumbar spine and spondylolisthesis (9), post-traumatic pain (6), post-operative pain (5), headache (3), malignant tumors (3), cervical pain (2), chronic pancreatitis (2), diabetes mellitus (2), mandibular dysfunction (2), and others (2). Needless to say, their physical diagnoses were not proper enough to explain their pains.

Table 1  Location of the pain

<table>
<thead>
<tr>
<th>Location</th>
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<tbody>
<tr>
<td>Low back</td>
<td>16</td>
</tr>
<tr>
<td>Head (including jaw joint)</td>
<td>15</td>
</tr>
<tr>
<td>Neck~Shoulder</td>
<td>7</td>
</tr>
<tr>
<td>Chest</td>
<td>5</td>
</tr>
<tr>
<td>Abdomen</td>
<td>4</td>
</tr>
<tr>
<td>Oral cavity (including tongue)</td>
<td>3</td>
</tr>
<tr>
<td>Lower extremity</td>
<td>3</td>
</tr>
<tr>
<td>Upper extremity</td>
<td>1</td>
</tr>
<tr>
<td>Whole body</td>
<td>1</td>
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</table>

*Some patients complained of pain at more than two parts.
All patients were interviewed by the same psychiatrist, and diagnosed as “Somatoform Pain Disorders” according to DSM-III-R (The duration of some patients did not reach 6 months from the onset of their pain when they received our initial interview).

The subjects were classified into three groups based on clinical interview, that is, alexithymic group, non-alexithymic group and intermediate group. Referring to Chaturvedi’s criteria, clinical features adopted for classification are as follows; a) poor emotional expression of such states as anxiety, depression or aggression, b) insistence on physical symptoms in details, c) difficulties of psychotherapeutic intervention. Patients who fulfilled all items were classified as the alexithymic group, ones who fulfilled neither a) nor c) were classified as the non-alexithymic group, and others were classified as the intermediate group. Most of the patients referred to our clinics were usually embarrassed to be treated for their pain in the psychiatric department first. On psychiatric interview, we asked about their daily life and emotional life as well about factors related to their pain. Alexithymic patients mentioned their life events but did not express well their emotions related to them. The diagnostic criteria a) means not only their emotional expression of the interview, but also that which is related to their lives. The diagnostic criteria c) means the feeling of difficulties on the side of the interviewer, and the patients did not always resist the psychiatric therapy consciously.

All of them completed our “Questionnaire on Pain” (QOP for short), and 40 of them completed CMI (Cornell Medical Index) and 28 completed MMPI (Minnesota Multiphasic Personality Inventory).

After having been reported in the previous paper, the “QOP” was revised in some parts as follows. The 1st part consists of the location, the characteristics and the visual analog scale of pain. The 2nd part consists of 23 questions mainly about the interaction between pain and daily life, which are subgrouped in the changeability of pain influenced by psychological factors (II-1), the changeability of pain by environmental factors (II-2), the limitation of body activity by pain (II-3), the limitation of daily life by pain (II-4), psychological sufferings due to pain (II-5), and the changeability in a day (II-6). The 3rd part consists of 55 questions about various psychological problems, which are subgrouped into interpersonal sensitivity (III-1), anxious or depressive tendency (III-2), aggressive tendency (III-3), other psychophysiological symptoms (III-4), and the doctor-patient relationship (III-5). The 4th part consists of 15 questions about the reliability of the test. The selections of answers of II and III are provided in 5 ways and scored from 1 to 5 according to them.

As we reported before, when one shows high scores in either of II-4, 5, III-1, 2, 3, his pain can be probably judged to have psychogenic origin. In the paper the cutting point of high score was set at 60% of the sum of each category.

Now, we tried to devide the sum of the scores of III-1, 2 and 3 by the sum of the scores of II-4 and 5. That means the grade of psychological sufferings was compared with somatic sufferings. We thought this score would decrease in alexithymic patients, though it was not equal to alexithymia. We called it “Alexithymic-Tendency Score” (abbreviated as “ATS”).

The results of CMI were classified into 4 areas according to Fukamachi’s classification.

Regarding the results of MMPI, pathological profiles were judged according to the scores, and MMPI alexithymia scales (Kleiger) were calculated.

Most of the patients were treated by medication and brief psychotherapy. Only two patients were hospitalized in the psychiatric department and others were treated at outpatient clinics.

Results

1. In “QOP”, 46 of 48 patients showed high scores in at least one of II-4, 5, III-1, 2, 3. This result shows most of them were judged as psychogenic pain according to “QOP” and only 2 patients cannot be identified as psychogenic origin.

The results of psychological tests are shown in Table 2.

Regarding CMI, the scores of 4 patients were
Table 2 Results of psychological tests

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<tbody>
<tr>
<td></td>
<td>CMI: I (4) II (14) III (10) IV (12)</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Patterns of profile</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal profile</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Conversion V</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Other neurotic profile</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Other pathological profile</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Alexithymia scale</td>
<td></td>
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<tr>
<td></td>
<td>Under 14</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>14-16</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Over 16</td>
<td>1</td>
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categorized in area I, those of 14 patients were in area II, those of 10 patients were in area III, and those of 12 patients were in area IV, respectively.

Regarding MMPI, 8 patients showed no pathological patterns, 9 patients showed "conversion V" profile, 9 patients showed high scores of neurotic scales (Hypochondriasis, Depression, Hysteria) without "conversion V" profile, and 1 patient showed other pathological profile. Scoring the alexithymia scale, 14 patients showed scores under 14, 8 patients showed scores between 14 and 16, only 1 patient showed 17. This result means only one patient could be identified as alexithymic by alexithymia scale (AS), according to Shibayama's criteria of alexithymia(*)

2. Following the psychiatric interview, 14 patients (10 male, 4 female) are grouped in the alexithymic group, 21 patients (6 male, 15 female) in the non-alexithymic group, and 13 (7 male, 6 female) in the intermediate group.

The results of psychological tests were compared between the alexithymic and non-alexithymic groups (Table 3).

Table 3 Comparison of psychological tests between alexithymic and non-alexithymic group

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<tr>
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<tbody>
<tr>
<td></td>
<td>Alexithymic (n=14)</td>
<td>Non-alexithymic (n=21)</td>
</tr>
<tr>
<td>QOP (ATS)</td>
<td>2.4±0.6</td>
<td>3.2±0.7</td>
</tr>
<tr>
<td>CMI (III+IV)</td>
<td>2/12</td>
<td>12/18</td>
</tr>
<tr>
<td>MMPI (AS)</td>
<td>14.0±2.8</td>
<td>11.1±3.8</td>
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</table>

When the mean "ATS" was compared between the two groups, the alexithymic group showed significantly lower score than the non-alexithymic group (p<0.01, Wilcoxon test).

Similarly, comparing the number of the patients who belong to areas III and IV in CMI and are possibly interpreted as neurotic, the number of alexithymic patients is significantly less than that of non-alexithymic patients (p<0.01, chi-square test). Comparing the mean score of MMPI alexithymia scale, there were no significant differences between alexithymic and non-alexithymic groups, though there seemed to be a tendency that the score of the alexithymic group was higher than that of the non-alexithymic group (p<0.1, Wilcoxon test).

There were no significant differences in the duration of the pain between the two groups. With regard to treatment and prognosis, 7 of 14 patients of the alexithymic group dropped out from psychiatric therapy at the early stage, while 18 of 21 patients of the non-alexithymic group continued psychiatric therapy (at least more than 5 visits) until they found relief from symptoms.

About the efficacy of drug therapy, 12 patients of the alexithymic group did not react to any drugs

Table 4 Outcome of treatment

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<tbody>
<tr>
<td>Motivation for psychiatric therapy</td>
<td></td>
</tr>
<tr>
<td>Drop-out at early stage</td>
<td>7</td>
</tr>
<tr>
<td>Continued for certain period</td>
<td>7</td>
</tr>
<tr>
<td>Medical treatment</td>
<td></td>
</tr>
<tr>
<td>Effective by antianxiety drugs or antidepressants</td>
<td>0</td>
</tr>
<tr>
<td>Effective by neuroleptics</td>
<td>2</td>
</tr>
<tr>
<td>Ineffective or unknown</td>
<td>12</td>
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and only 2 reacted to antipsychotic drugs, while 17 patients of the non-alexithymic group reacted to antidepressant or antianxiety drugs (Table 4).

Discussion

Alexithymic characteristics have been thought to contribute to the causation or maintenance of psychosomatic disease since Sifneos had published the concept of alexithymia\(^\text{[11]}\). And it has also been said that a lot of chronic pain patients have alexithymic characteristics\(^\text{[2-6,12,13]}\).

In order to judge the presence of alexithymia, several psychological tests\(^\text{[14-16]}\) have been devised other than Beth Israel Questionnaire (BIQ)\(^\text{[11]}\). MMPI alexithymia scale\(^\text{[7]}\) is used most frequently for that purpose among them, though some researchers cast some doubts on its reliability for detection of alexithymia\(^\text{[17,18]}\).

In our previous paper, we reported the usefulness of our "Questionnaire on Pain" (QOP) for the purpose of screening chronic pain patients. As mentioned in it, we think that we can judge his pain as having a psychogenic origin when a patient shows high scores in at least one of II-4, 5, III-1, 2, 3.

After using "QOP" on many pain patients, we found some patients showed high scores only in II-4 or 5, and low scores in III-1, 2, 3. That means that they have many difficulties in their daily life due to pain, but on the other hand, they do not have or find emotional problems other than pain. We noticed these characteristics are similar to alexithymia, and that it was difficult to deal with these patients by usual psychiatric intervention. Accordingly we thought the score of the sum of II-4 and 5 devided by the sum of III-1, 2 and 3, which we call "Alexithymic-Tendency Score" (ATS), may correlate to alexithymic characteristics.

In order to examine our finding, we tried to contrast "ATS" with clinical impression by psychiatric interview. In this study we proposed three diagnostic criteria in judging alexithymic tendency, referring to Chaturvedi’s criteria\(^\text{[9]}\). They are, a) poor emotional expression of such as anxiety, depression or aggression, b) insistence on physical symptoms in details, c) difficulties of psychotherapeutic intervention. Though they do not certainly mean exactly the same meaning of "alexithymia", we think they should contain the main part of the alexithymic characteristics. Recently many researchers adopt some psychological tests in order to judge the "alexithymia". We should admit that those tests may correlate to alexithymic characteristics, but cannot substitute the original meaning of "alexithymia", which was derived from the difficulties of psychological intervention to psychosomatic patients. We think the criteria we present are closer to the original thought of Sifneos rather than the ways judged by psychological tests.

Grouping the pain patients into the alexithymic group and the non-alexithymic group according to these criteria, we compared the two groups by CMI, "ATS", and MMPI alexithymia scale.

According to the results of CMI, the number of the patients of the alexithymic group who belonged to area III or IV was fewer than that of the non-alexithymic group. That means alexithymic patients are less neurotic, though this result was expected.

Comparing two groups by "ATS", the alexithymic group showed significantly lower scores in "ATS" than those of the non-alexithymic group.

On the other hand, MMPI alexithymia scale could not differentiate two groups. That means this study could not always justify this scale for judgment of alexithymia. So we think "ATS" is more useful for rough screening of alexithymic characteristics of chronic pain patients.

With regard to medical treatment, many patients of the non-alexithymic group were relieved by antianxiety or antidepressant drugs, while pain patients of the alexithymic group did not react to drug therapy except for two who were relieved to some extent by neuroleptics. This result may indicate that the pains of the non-alexithymic group were derived from anxiety or depression, whereas the pains of the alexithymic group had more complicated psychophysiological mechanisms.

A half of the alexithymic patients dropped out from psychiatric therapy at the early stage, while many of the non-alexithymic group continued psychiatric therapy until they obtained relief. Although
this result might be expected from the criteria of the classification of alexithymia, it is worthy to note that a half of the patients of the alexithymic group continued to visit our clinics. This is most probably because we accepted the presence of their pains, and they did not resist psychiatric treatment consciously, although unfortunately most of them did not react to usual psychiatric intervention. This point indicates the difference between these patients and hypochondriacal patients. It is our opinion that for these chronic pain patients with alexithymic characteristics, some other treatment, such as group therapy or behavioral intervention\textsuperscript{5,6,}, must be employed rather than usual psychiatric therapy.

At any rate, these results show that our classification of chronic pain patients by using the clinical interview is reasonable for the prediction of the outcome of treatment. We should admit, however, that these criteria can be rather subjective on the part of interviewers, especially in the items of a) and c). We think that “ATS” can complement these criteria. That is to say, when a patient shows low “ATS”, he could be judged as alexithymic, and he is not indicated for psychodynamically-oriented psychotherapy nor recommended for the use of antianxiety drugs and antidepressants. In that way “ATS” can be used as an useful instrument for selecting treatment modalities for chronic pain patients.

\textbf{Summary and Conclusion}

Some psychological tests were conducted in order to pick up the alexithymic characteristics in chronic pain patients. The results of those tests and the outcomes of their psychiatric treatment were examined by comparing the alexithymic group with the non-alexithymic group. Summary of our results and conclusions are as follows.

(1) Subjects were 48 patients whose chief complaints were pains which could not be explained by somatic origin. They were diagnosed as "somatic form pain disorders" according to DSM-III-R.

(2) They were classified into alexithymic, nonalexithymic and intermediate groups. The criteria adopted for classification included: a) poor emotional expressions of such as anxiety, depression or aggression, b) insistence on physical symptoms in details, c) difficulties of psychotherapeutic intervention. Patients who fulfilled all items were classified as the alexithymic group and ones who fulfilled neither a) nor c) were as the non-alexithymic group, and others as the intermediate group. 14 subjects were grouped in the alexithymic group, 21 were grouped in the non-alexithymic group, and 13 were grouped in the intermediate group following psychiatric interview.

(3) All subjects completed “Questionnaire on Pain” (QOP), and 40 completed CMI, 28 completed MMPI.

Comparing the alexithymic group with the non-alexithymic group, the mean of the Alexithymic-Tendency Score (ATS), which means the sum of the scores of III-1, 2, 3 divided by those of II-4, 5 in “QOP”, was significantly lower in the alexithymic group than in the non-alexithymic group.

Similarly the number of the subjects who belong to areas III and IV in CMI was significantly less in the alexithymic group than in the non-alexithymic group.

MMPI alexithymia scale could not differentiate two groups.

(4) Concerning the treatment, patients of the non-alexithymic group reacted better to medical treatment and psychotherapeutic intervention than the alexithymic group.

(5) The results of psychological tests and treatment showed that chronic pain patients were not uniform in psychological characteristics and therefore must be treated differently. We think “ATS” of “QOP” can be a very useful index for selecting the treatment and predicting the prognosis of chronic pain patients.

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