"Fear of Emitting Bad Odors"

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INTRODUCTION

It has been known that in our country there exist some uncommon forms of neurosis, among which is a peculiar one presenting with a camplaint of "emitting bad odors" (Kohra et al.[1], Shikano et al.[2], Adachi[3], Konuma[4], Nakazawa[5], Miyamoto[6], Uemoto et al.[7,8]). This condition, which was named "offensive corporal smell" by Kohra et al.[1] who is of the school of Morita, has been investigated from a clinico-psychiatric or psychiatrico-anthropologic point of view. In recent years some reports have also been made available successively in this regard (Murakami[9], Koyano[10], Fukui[11], Suwaki[12], Ohumi[13], Tsukamoto[14]). In Germany this condition is known as "Eigengeruchspsychose", concerning which some studies have been made by Tellenbach[15,16] and Walter[17]. Making a comprehensive collection of cases of the condition under the name of "fear of emitting bad odors", Kasahara[18] attempted to classify it according to the time-course and at the same time made a highly suggestive argument with respect to its relationship with schizophrenia. Miyamoto[19] brought forward a classification based on status picture and also made an attempt to clarify the experience of how one feels about his body giving out an offensive odor.

In this paper is presented our experience in 38 such patients (27 males and 11 females) seen during the past 5 years at the Department. of Neuropsychiatry, Yamaguchi University School of Medicine or the Health Counselling Center of Yamaguchi University.

Illustrated below are some representative cases selected from among these patients according to Kasahara's[18] classification referred to above. We must admit that our study extended over too short a period to corroborate the validity of our classification for a long time to come.

REPORT OF CASES

I. Cases of early onset mainly in puberty

a) Deteriorating type - - Patients who have had the experience of feeling the body emitting a bad odor as initial symptom, which leads relatively rapidly to the deterioration of their personality with schizophrenic symptoms coming to the foreground sooner or later (Table 1).

Case 2 - - A woman aged 24 at the time of first examination.

The patient has had no previous history of any significant illness except for having been weak in her childhood. Her family history is marked by a first cousin (male) who committed suicide at age 18 after developing symptoms of apparently a schizophrenic nature.

It was in the springtime of the year when she was 17 years of age that for the first time she complained of her body smelling somewhat offensive. She became unable to concentrate her minds on studying her lessons. Her complaint then subsided for a little while. After finishing high school she was registered at a junior college as a literature student. Soon after she started her student life as a resident at a dormitory, she called on each of her fellow residents to ask if her body gave out a somewhat offensive smell. This event caused her to leave the dormitory and change her quarters in a private boarding house after a month of unpleasant life at the dormitory. Again, however, she became liable to insomnia, this time complaining of her being looked askance at or left out in the cold by her neighbors. She sought our psychiatric advice and then was hospitalized for 3 months under the diagnosis of a hebephrenic type schizophrenia. Subsequently she went to school from her own home while remaining under our care on an ambulatory basis, until she graduated last on the school list. It was about that time that she developed marked symptoms including a lack of spontaneity, delusion of persecution, autistic traits and flattening of affect. In those days she was confining herself to her room on the assumption that she must lie in bed with her bedclothes pulled all over her head so as to keep herself from sending forth an annoying scent. She was almost out of contact even her family members and moreover not taking meals or a bath unless she was so inclined.

She described the oder in question as follows. "It seems to come out slowly but steadily from something in the body up to the surface of the skin through the muscle. That I'm giving forth an offensive odor can be seen from winking at each other of those who are around me, the whispers in which people speak ill of me behind my back, or their

Table 1. Early onset-deteriorated type

Case No.	Sex	Age of Onset	Age of First Examination	Duration of Treatment	Property of Smell	Diagnosis	Treatment	Prognosis	Main Replacing Symptoms	Hereditary Background
1	M	15	20	1 year	Gas	Hebephrenia	Ambulatory	Not yet cured	Personality deterioration	Not remarkable
2	F	17	24	5 years	Body odor	〃	Hospital→ Ambulatory	〃	〃	A cousin (male): Committed suicide
3	M	17	22	4 〃	Sperm	〃	Hospital	〃	Attempted suicid; personality deterioration	Not remarkable
4	M	14	15	2 〃	Fermentative odor of gastric origin	〃	〃	〃	Personality deterioration	Grandfather (paternal): Schizophrenia, sister: Schizophrenia (?)
5	M	17	17	1 year	Body odor	〃	Ambulatory	〃	〃	Aunt (maternal): Committed suicide
6	F	19	21	3 years	〃	〃	〃	〃	〃	Not remarkable
7	M	13	14	3 〃	〃	〃	Hospital	〃	〃	〃
8	M	15	17	3 〃	Fecal odor	〃	〃	〃	〃	〃
9	M	15	19	1 year	Axillary odor	〃	Ambulatory	〃	〃	〃
10	M	16	18	1 〃	Foul breath; gas	〃	Ambulatory discontinued	Unknown	〃	〃
11	M	14	15	5 years	Fecal odor	〃	Ambulatory	Not yet cured	〃	〃
12	M	12	14	3 〃	Foul breath	〃	〃	〃	〃	〃

passing by me making a grimace or holding their nose with their hand." She concluded assuredly that she had an idiosyncrasy in which modern medicine is of no use. With a state of personality deterioration coming to the foregound in these days, she has hardly had any complaint of what she calls her body odor, which nevertheless has underlain the presenting symptoms.

In this case, fear of emitting an offensive odor constitutes part of the initial symptomatology of a hebephrenic type schizophrenia. The property of the odor is so ambiguous that even the patient herself can describe it only as "a bad odor not to be compared with anything else." As is invariably the case with such an experience, the odor has no sensational basis. The complaint of the odor somehow coming forth from the entire surface of the body through the muscle, as well as the hypochondriacal delusion of such an idiosyncrasy being beyond the control of modern medicine, undoubtedly stems from schizophrenia following a malignant course. The smell is originally quite different from body odor, contrary to her believing it to be so. The contradiction of being and at the same time not being body odor is of major importance in psychiatrically elucidating the experience which is "not an olfactory hallucination but rather approximates to a delusion". The offensive odor, which the patient asserted to be attributable to a mass which was present in her stomach, making her feel unwell, has faded away and settled like dregs in the long course of our observation.

Case 4 - - A boy aged 15 at the time of first examination

The family history of the patient is marked by his grandfather on the father's side who developed schizoid symptoms in his early life, requiring 2 months' stay at a mental institution. The elder sister of the patient has also been idling her time away at home since she left school for no definite reasons when she was a third-grade student of a senior high school. The patient is a nervous and timid type but somewhat obstinate. No events of special note had occurred until he was a third-grade student of a junior high school, when he came to absent himself from school complaining of toothache or feeling unwell in the bowels. As a senior high school boy he was absent from school at least once or twice a week for televiewing or reading funny books in his room. He was then brought to us because he sometimes had beaten up or kicked his mother admonishing him. He said that he felt having a mass in the vicinity of his stomach, which underwent fermentation to produce gases and that he always had his stomach kept full trying to avoid the gas from coming out of his mouth and anus. He also said that he had been alienated from all his friends because of the offensive odor, which also

Table 2. Early onset-transitional type

Case No.	Sex	Age of Onset	Age of First Examination	Duration of Treatment	Property of Smell	Diagnosis	Treatment	Prognosis	Main Replacing Symptoms	Hereditary Background
13	F	16	18	3 years	Body odor	Obsessional neurosis	Ambulatory	Not yet cured	Dread of uncleanness; idea of observation	Uncle (paternal): Schizophrenia
14	M	15	20	4 〃	Foul breath	Hebephrenia	〃	〃	Spreading of thought; idea of persecution	Father: Schizophrenia
15	F	19	20	1 year	Gas	Paranoid	Hospital→ Ambulatory	〃	Ideas of persecution and observation	Not remarkable
16	M	15	18	3 years	Body odor	Hebephrenia	Hospital	〃	Attempted suicide; delusion of persecution	〃
17	F	16	20	1 year	〃	〃	Ambulatory	〃	Delusion of reference	〃
18	M	15	18	2 years	Foul breath	Borderline case	〃	〃	Idea of persecution	〃
19	F	23	23	3 〃	Body odor	Hebephrenia	Hospital	〃	Passivity phenomenon	〃
20	F	18	20	3 〃	Gas	〃	Ambulatory	〃	Delusion of reference	〃
21	M	15	18	6 months	〃	Simple type	〃	〃	Idea of observation	Mother: Presenile dementia (?)
22	M	15	16	1 year	Smell of genitalia	Hebephrenia	〃	〃	〃	Grandfather (paternal): Epilepsy
23	F	16	16	2 years	Gas	Simple type	Hospital	〃	Idea of culpability	Father: Committed suicide

caused his classmates to frown when he stepped into the classroom, and that his teachers moved their hand to their nose as soon as their eyes met with his. Admitted under the diagnosis of a hebephrenic type schizophrenia, he was in an excited state with delusions of persecution and a trait of negativism: he said that none of the nurses would have anything to do with him alone, and that he didn't want to take any medicine because it would dissolve his bowels. Six months of hospital treatment relieved him of the morbid experience. Even after discharge, however, he failed to go to school, idling most of his time at home, often in a bedridden manner, except while working as a helper at a filling station. Not complaining of the odor any more, he even refused to take most of the doses of psychotropic agents prescribed at the outpatient clinic. Monologue and hysterical laughing are the symptoms that have become pronounced in these days.

In this case, too, fear of emitting bad odors that developed as the incipient symptom triggered a rapid progress to autism and deterioration of personality through school phobia. There were 12 cases (of which 2 were female) coming under this category: onset of disease in puberty with fear of emitting bad odors which leads rather rapidly to a state of personality deterioration.

A feature common to the patients in this group is that the experience of feeling one's own body stinking disappears rapidly but not completely, persisting long under the shade of severe schizophrenic manifestations. Of great interest is the fact that no transition from the experience to a typical olfactory hallucination will take place, a fact which may be considered to indicate that the experience is not identical with any olfactory hallucination.

b) Transitional type - - Patients with fear of emitting bad odors replaced in time by psychic symptoms characteristic of schizophrenia but but not leading to serious personality changes traceable to schizophrenic origin (Table 2).

Case 13 - - A woman aged 20 at the time of first examination

Neither the family history nor the hereditary background of the patient is remarkably abnormal. The patient has a sister who is a senior high school student. At the age of 6 she suffered from tuberculous meningitis, of which she was then cured completely by 5 months of hospital treatment. Since then she has had bilateral streptomycin deafness. The use of a hearing aid saved her from any serious trouble in studying her lessons or in her interpersonal relations while she was a primary or junior high school girl. After graduating from senior high school medio-

cre on the list, she served at a dressmaker's shop. Being gentle and yielding in character with a rather large circle of acquaintances, she was often lost in thought after having been harassed by a feeling of gases spontaneously coming out of her anus during a school excursion made when she was a third-grade student. She turned to an internist for help. No improvement resulted, but she came to say that her friends and even passersby frowned as they looked at her face. Sought our advice at the age of 20, when the use of a hearing aid enabled her to have a conversation with us as satisfactorily as ordinary people. On suspicion of a delusion-like state often encountered in patients with deafness she was administered with neuroloptics while being placed under psychotherapy. As a result, her fear of emitting bad odors dissipated. Then, with flushing or anthropophobia coming to the foreground instead, she was sometimes away from work. She once spoke to us that both her family members and the doctors firmly denied the possibility of her feeling the air going in and out of her anus, that she herself thought it strange to feel so, and that it was very hard on her to be haunted by the idea of gases even though she made it a practice to try to think that she was to blame for being possessed by such a stupid idea. Subsequently her condition followed a relatively favorable course although with some variation in the severity of the presenting symptoms, but then was aggravated about the time when her parents brought an offer of marriage before her. Now she is apt to stay in home afflicted by the ideas of being watched. For the time being there is no appreciable sign suggestive of personality changes.

This is a case which has suffered from deafness since childhood. It is well known that sensitive ideation of reference is not rare in such a patient. This case may be regarded as the instance of a delusional state obsessively coupled with the experience of feeling one's own body offensive. The obsession and the experience were first replaced by fears of flushing and other people and then, with a hypochondriacal trait toned down, by the idea of reference and observation, which has persisted up to the present. This case may fall under the delusion of a reference type as designated by Miyamoto[19].

Case 15 - - A man aged 20 at the time of first examination

The family history of the patient is featured by his father who has been in a condition suggestive of long-standing schizophrenia. The patient is an unsociable, taciturn, gloomy type and somewhat obstinate in character.

In the autumn of the year when he was a third-grade student of a

senior high school, he began to feel that his classmates had kept aloof from him. Being under ambulatory care of a dentist at that time, he ascribed this to halitosis due to dental caries and implored the dentist to extract two molar teeth under treatment. This dental surgery, however, resulted in no improvement in his alleged halitosis. He complained of a saliva-like mucous fluid oozing out of the gingival cavities thus produced, a fluid which, when oozing out, caused his classmates to make a grimace all at once, thereby indicating that an offensive odor was being given forth from his mouth or nose. He also made an ambiguous statement that he didn't know exactly what kind of an odor it was but it must be a foul one in view of the fact that people frowned at it. Such a condition of the patient subsided gradually as he devoted himself to preparing for the entrance examinations to universities. Soon after he began to live in a lodging house as a university student, however, there developed a marked degree of halitosis again after someone intentionally dropped by his lodging house as if making a mock of him studying there, or walked in a different manner along the street in front of the lodging house in order to make a contemptuous sign against him. He then turned to the Health Counselling Center of Yamaguchi University for advice, complaining that he had a low time staying in the campus because he was alienated from his fellows and that his ideas became so widely known to other students as to make him feel as if he had not been his own. When interviewed for the first time, he kept his mouth shut with downcast eyes for about 30 minutes before he said that he had nothing to talk about after all since all his ideas must have been known to us. A neuroleptic regimen was administered, while psychiatric interview was continued. Notwithstanding, he often failed to attend lectures, until in the summer of the year when he was a freshman he came to carry a knife with him with the intention of killing a fellow who had been tormenting him so much and who he said must be somewhere in the campus. His parents were then advised to admit him to a mental institution in his native place. After about one month of a successful treatment there, he came back to the campus again. Being cheerful enough to smile on occasions, he expressed his new resolution to go by the principle of "Lets others mind their own business". Despite that, he often failed to attend lectures, with the result that he had to stay back in his class for a year. His family members are describing him as somewhat perverse, but no marked sign of personality deterioration has been observed up to the present. The patient has taken the required credits, although with the lowest marks. In there days a trait of egorrhea symptom (Fujinawa[21]) with an alleged feeling of his ideas leaking out has been presenting itself.

Table 3. Early onset-persistent type

Case No.	Sex	Age of Onset	Age of First Examination	Duration of Treatment	Property of Smell	Diagnosis	Treatment	Prognosis	Main Replacing Symptoms	Hereditary Background
24	M	18	19	3 years	Gas	Simple type	Ambulatory	Not yet cured	None	Not remarkable
25	M	14	15	3 〃	Foul breath	Anthropoph-obia	〃	〃	〃	〃
26	M	15	15	3 〃	Body odor	Obsessional neurosis	〃	〃	Obsessional hand-washing	Aunt (paternal): heavy drinker Father: heavy drinker
27	M	16	19	5 〃	Foul breath	Simple type	Hospital	Subsided	Dread of uncleanness	Not remarkable
28	M	17	22	1 year	Fecal odor	Borderline case	Ambulatory discontinued	Not yet cured	None	〃
29	M	15	24	3 years & 6 months	〃	Obsessional neurosis	Ambulatory	〃	〃	〃
30	F	15	16	2 years	Body odor	〃	〃	〃	〃	〃
31	F	16	27	1 year	〃	〃	〃	〃	〃	〃
32	M	24	25	1 〃	Belch; foul breath	Simple type	〃	〃	〃	〃

In this case, the experience of feeling one's own body stinking constituted one of the manifestations of a hebephrenic type schizophrenia and, in the course of time, led to the development of other symptoms such as delusion of persecution and spreading of thoughts. The condition of this patient is considered to be relatively stable at present, with its progress being at a standstill for sometime now. The cardinal symptom at the present stage is spreading out of thoughts, with the experience of feeling one's own body stinking already replaced by a prominent trait of egorrhea or fear of one's ideas leaking out. For the time being, there is no indication of further progress of the condition.

c) Persistent type - - Patients with fear of emitting bad odors persisting as a solitary symptom over a considerable period of time (Table 3).

Those patients who complain of nothing but experience of feeling their body smelling offensive, which persists for a prolonged period of time, have so far interested us as such. In this sense these patients can be labeled as having fear of emitting bad odors in the narrow sense of the word. There are 9 such cases encountered during the period of our observation, of which 7 are male and 2 female. The majority of these cases fell under the category of a simple type or borderline case of schizophrenia. It must be added here that at our clinic we might put a somewhat broad construction on the criteria for the diagnosis of a simple type schizophrenia; hence, it is quite likely that the same patients may be diagnosed as schizoid or other states at other clinics. In most of the patients coming under this category, there is a marked trait of phobia with presenting symptoms relatively responsive to treatment, but prognostication requires a prolonged period of observation. Personality changes seem to be minimal or absent in these cases.

Case 28 - - A boy aged 16 at the time of first examination

There is no abnormality in the hereditary background of the patient. However, he has been brought up by his mother alone, who has meddled with or cared for him to an extraordinary degree ever since she got separated from his father in his childhood. He has a sister who is a junior high school girl. He is fainthearted, nervous, willful, fond of cleanliness and somewhat obsessive. Nothing was the matter with him, who stood high in his school performances, until he was a third-grade student of a junior high school when he for the first time became nervous about his halitosis while televiewing a commercial for a dental paste. He then began to complain of being reluctant to study or having his mind distracted. He gargled frequently, and consulted a dentist and an internist of

his own accord. As a senior high school student he remained in essentially the same condition although with the symptom varying to some extent in severity. It is when he was a freshman that he was transferred to our clinic as a suspected case of psychosis. The patient used to go to the university by train from his house. Meanwhile, it seemed to him that as soon as he got in the train passengers around him began to smoke or chew gum to make an oblique hint at his stinking, or that they partitioned their faces with newspapers as a quiet protest against his producing stinking smells. He also used to listen to lectures at the rearmost seat lest he should cause annoyance to other students. In the belief that constipation will entail aggravation of halitosis, he was in stool for a long time in the morning. This often caused him to miss the train and hence absent himself from school. He was then hospitalized because he, when admonished by his mother, assaulted his sister in an eccentric manner. Immediately after admission he complained that the psychiatrist, the dentist and the internist had conspired together to entice him to the institution. Confining himself to his room without becoming friendly with the nurses and other patients, he took meals alone, stayed in stool for a long time, and plagued the doctor in charge with a barrage of questions about the relationship between constipation and halitosis. In the 6th month of hospital stay his interpersonal relations were improved enough for him to join voluntarily in occupational programs. Then he was discharged, and now he is under continued observation as an outpatient. Staying away from school for a time, he has shown little evidence of personal changes but rather made the impression of an immature personality. His attitude toward halitosis still remains obsessive although to a lesser extent than before.

The immaturity of personality is a prominent feature of this patient, who has been brought up in a faulty home environment by his mother caring for or meddling with him just too much. He was obsessed by ideas of halitosis, which was then coupled with those of persecution and delusion of reference. Hospital treatment improved his condition so much as to enable him to live in an essentially normal way. Obsessive ideas of halitosis have persisted in this case, although his fear of emitting bad odors has become less marked advancing age.

Case 30 - - A man aged 24 at the time of first examination

Neither the family history nor the hereditary background of the patient is remarkable. It is when he was a third-grade junior high school student that he for the first time complained of feeling unwell with a sour smell filling up the mouth. He had two episodes of sinusitis. As a part-time senior high school student he served as an apprentice truc-

kman in daytime, and after completing the high school course, was employed by a trucking company as a truckman. At the age of 22 he suffered from acute hepatitis and was admitted to the company's hospital for three months, during which time he was told that the fellows with whom he shared a room had found it smelling sour while he was in and that some visitors had described it as stinking. He sought our psychiatric advice when he was 24 years old. From the spring of that year on the sour smell changed into that of feces, leading him to consult a proctologist, who then told him of his having internal hemorrhoids though mild enough not to require surgical treatment. In an attempt to destroy the odor, he incessantly smoked although he didn't care much for it. He was also strongly desirous of driving a two-seater truck by himself on the ground of the odor being sharp while the heater was on or he took exercise. He remains unmarried, saying that his offensive odor would prevent him from being married. According to one of his seniors, he is extremely faithful to his duty. Now after 3 years and 6 months of affliction he has not been relieved of his peculiar experience although without any serious trouble in his social life.

The condition of this patient has a prominent obsessive feature as different from an olfactory hallucination. In this case the sour odor initially experienced underwent a change into that of stool but without any concurrently marked impairment of spontaneity, performance or mental activity or any other serious trouble in social life. In other cases falling under this category, too, our observation did not extend over a sufficiently long period of time to rule out the possibility of the condition being replaced in the course of time by a psychosis in a more definite form. As referred to earlier, most of these patients were diagnosed tentatively as a simple type schizophrenia sheerly on the ground that this peculiar experience is closely related to schizophrenia.

d) Regressive type - - Patients with fear of emitting bad odors, which is of relatively short duration, disappearing with or even without treatment (Table 4).

A series of students complaining transiently of the experience of feeling their body stinking were seen at the Health Counselling Center of Yamaguchi University. Most of these cases seem to be rarely seen at the psychiatric outpatient clinic.

In 3 male and 1 female student we made a study of the symptomatology and time-course of the condition in this group.

Case 33 - - A man aged 18 at the time of first examination

The patient's father died of pulmonary tuberculosis when he was a

Table 4. Early onset-regressive type

Case No.	Sex	Age of Onset	Age of First Examination	Duration of Treatment	Property of Smell	Diagnosis	Treatment	Prognosis	Main Replacing Symptoms	Hereditary Background
33	M	16	18	5 interviews	Body odor, Gas	Conflict reaction of adolescence	—	Cured	None	Not remarkable
34	M	19	19	7 〃	Foul breath	〃	—	〃	〃	〃
35	M	16	19	3 〃	Sperm	〃	—	〃	〃	〃
36	F	17	18	6 〃	Smell of genitalia	〃	—	〃	〃	〃

Table 5. Mid-course onset type

Case No.	Sex	Age of Onset	Age of First Examination	Duration of Treatment	Property of Smell	Diagnosis	Treatment	Prognosis	Main Replacing Symptoms	Hereditary Background
37	M	32	33	5 years	Gas	Paranoid	Hospital Ambulatory	Not yet Cured	Inference of thought; delusion of reference	Mother: Mental subnormality
38	M	33	35	2 〃	Sweat	Obsessional neurosis	Ambulatory	〃	Idea of observation	Not remarkable

child. His mother has been engaged in farming. He has no siblings. He is hard-working and tenacious in temperament, having few friends because by nature he is taciturn and shy of strangers.

In the autumn of the year when he was a second-grade student of a junior high school, he became aware of his undershirt smelling of sweat while changing his clothes after a lesson in physical exercise. He asked his classmates how they thought about the smell of his sweat. They all replied that it was mild enough not to get on their nerves. Later, however, he came to think that they had replied so for friendship's sake. Every student frowned passing by him along the corridors; some even held their nose with their hand to make a side-hint at his stinking. Thinking that it was because of his offensive body odor that all the classmates had been alienated from him and that nobody would have anything to do with him, he attended school putting on several undershirts on the days when he had a lesson in physical exercise. His dread of stinking was further intensified later, the smell being felt to originate not in the axilla alone as before but in the mouth, back, palms and external genitalia. The smell, which was now felt to be putrid or of gases, came out even when he was not sweating. Throughout his high school days he failed as much as possible to take a lesson in physical exercise and at the same time kept away from his friends. After finishing high school he registered at the school of engineering of our university. He took up his quarters not near the school as was usually the case with other students but in a remote place, so far away that it took more than half an hour to go to school by motor bicycle. He attended lectures rather regularly, however.

He saw us at the Health Counselling Center complaining of being excessively on the strain in the presence of others. During the first interview he was found somewhat awkward and restless, speaking in a low voice, whereas at the second interview he was frank enough with us to talk voluntarily about his experience in halitosis and body odor. We advised him to join in a sport club. He agreed and is now the manager of the club. Since the 5th interview he has been completely free from complaints of his abnormal experience. He has been doing well in taking units with an increased number of friends at school, although he has still found himself overstrained when he sees a stadent of the opposite sex, one by one.

This patient, who, as pointed out by Adachi[3], was not so backward as he described himself but rather amicable and communicative enough to place his trust in us promptly after his confiding himself to us, with the result that his condition followed a favorable course.

Case 36 - - A woman aged 18 at the time of first examination

Neither the family history nor the hereditary background of the patient is remarkable. Toward the end of her first year at a senior high school she felt herself stinking of leukorrhea to the extent of discomforting those around her. Her secret worry made her so liable to insomnia with such a poor appetite that she once suffered a weight loss as much as 3 kgs a month. She used to get up feeling depressed in the morning, and, for a time, she couldn't be engrossed in preparing herself for the entrance examinations to universities despite her great eagerness to do so. Immediately after entering a university she personally sought medical advice at the Health Counselling Center. Looking pale and depressed, she was persuaded to consult a gynecologist, who then told her that nothing was the matter with her. She became increasingly cheerful again subsequently. Her condition has followed a favorable course since she joined a cultural circle while continuing to have interviews with us at intervals of 2 weeks.

This is a case of the experience of feeling one's own genitalia stinking, which the patient for the first time had at the age of 17 and which then caused her to be in a state of reactive depression for a time. Several interviews following consultation with a gynecologist proved helpful in improving her condition. Kasahara[18] reported some cases of periodic affective disorder with concomitant manifestation of a similar symptom. He emphasized that such an experience is not a symptom of depressive state but quite different from the latter.

Of great interest is the time-course which the condition of the patients in this group is to follow. There is no positive evidence against the possibility of this peculiar experience heralding some psychosis that may arise in the future.

II. Cases of late onset

According to Kasahara[18], this group of patients is mostly in involution period and for the most part made up of females. He divided these patients into 3 subcategories: those in whom fear of emitting bod odors arises as a manifestation of involutional psychosis and disappears rather easily (concomitant type); those in whom the fear develops as the incipient sign is replaced by other psychotic symptoms (transitional type); and those in whom the fear arises as the incipient sign and then disappears readily (disappearing type).

The two cases illustrated below are those in which the patient had the experience of feeling his own body stinking midway in the course of a delusional type schizophrenia and obsessional neurosis respectively,

and in this sense come under what may be defined as "mid-course onset type". (Table 5). Both are male, with the onset at the age of 32 and 33 respectively, ages which are low enough to make one hesitate to include the patient in this group. At any rate, we have not yet encountered a typical case of "late onset" as designated by Kasahara.[18]

Case 37 - - A married man aged 33 at the time of first examination

The mother of the patient is 65 years of age and suffers from a mild degree of mental subnormality. She has carried on construction business with a few men, to which he succeeded after completing the junior high school course. Having been married at the age of 25, he has a son and a daughter now. His siblings consist of a brother and a sister, both married and healthy. Being gentle, kind-hearted and timid by nature, he sometimes talks big when he drinks. At age 30 he consulted with an internist because of general dysthesia, when he was told of his having anemia due to hemorrhoidal bleeding and then operated on. During his hospital stay he had his room changed for the alleged reason of his roommate being face-to-face with him. He uttered incoherent remarks, e.g., that he was being checked up by a machine. He was discharged after 2 weeks' hospital stay and was under psychiatric care subsequently. It was in February of the year when he was a 32-year-old outpatient with a paranoid type schizophrenia that he for the first time made nonsensical statements, such as that the gas escaping from his body caused his neighbors to speak of his breathing in or out or that they would feel hot and cold alternately to their dismay because the air-heater was on when he expired and the air-cooler was on when he inspired. Later he came to say that he was pained with gas collecting in the abdomen and then running throughout his body when he restrained himself from strong winds. When he heard someone talking in front of his house, he thought that he was being talked about. He was often absent from his work on the pretense of his being spited because of the gas filling up in his abdomen. He worked at times, when he did so as efficiently as before without making a mistake. At the age of 33 he saw us at our clinic. He was found thinking in a bizarre way: he said that he had no need of taking meals because he was able to suck up the energy or water of others, or that he wanted to have his wife given an injection so that he could suck it up to improve his illness. Other morbid experiences including auditory hallucinations, passivity phenomenon, deprivation of thought, inference of thought and spreading of thought were also observed. At once he was hospitalized. In the ward he hardly came in contact with those around him, saying that they frowned at his letting gas out of his anus. A month of treatment brought

him into a state of social remission with symptoms subsiding soon after administration of a psychotropic regimen. Being under continued care as an outpatient, he has had some episodes of queer experience with ideas of persecution still persisting. However, he is well enough to carry on his business although in no satisfactory way.

This is a patient who had the onset with delusion of persecution when he was more than thirty of age and in whom hypochondriacal delusion concerning gases led later to pathological experiences such as inference of thought, spreading of thought and auditory hallucinations. The patient's condition was relatively responsive to treatment, although marked by prominent bizarrerie and incoherence during aggravation stages. There has been no significantly striking tendency toward autism, with social adaptability retained to some extent at least, as suggested by the fact that the patient has carried on his business together with his men.

Case 38 - - A man aged 35 at the time of first examination

The patient is the eldest of his six siblings. His parents are alive and healthy. His hereditary background is not remarkable. Married at the age of 28, he has a son and two daughters now. He is fond of cleanliness by nature and also so methodical as not to be satisfied with anything left half done. After finishing high school he got a technical job, and now he holds the post of chief. At the age of 33 he came to absent himself from his work once or twice a month, worrying about trifles of others. Increasingly often he went to office by taxi from his house, which was more than 30 km distant, on the pretense of his sweating profusely. He consulted us at our clinic because when he took an official trip he felt that conductors and passengers had found him stinking and because he began to feel that his men also talking about his stinking smells. One of his seniors assured him that nothing was wrong with him, who worked harder than others. The patient, who has been receiving our treatment irregularly at the outpatient clinic is still not relieved of his worry about others' staring at him, which he thinks is having something to do with his sweating.

In this case, a trait of obsessive-compulsive neurosis that may be regarded as somewhat constitutional became prominent when the patient was over 30 years of age, and then was combined with his experience of his own body odor to form a fixed idea. The experience in this case is somewhat different from that in younger patients in that it is more egocentric than exocentric in nature.

DISCUSSION

As discussed earlier, fear of emitting bad odors can present itself in different forms of mental derangement: it may arise in schizophrenia as well as neurosis.

In juvenile patients it often makes an appearance as the incipient symptom of a hebephrenic type schizophrenia of poor prognosis. It is well likely that not a few of the inpatients at mental institutions have the onset with the experience as an initial symptom but follow the course of obsolete schizophrenia, during which the resultant disorganization of personality particularly such symptoms as a lack of spontaneity, apathy and indifference prevent the patient from complaining of the experience. Under such circumstances it is impossible to give the entire picture of the experience. Sometimes the dread of emitting bad odors may be seen presenting itself later as hypochondriacal complaints which are bizarre and anatomically impossible to analyse.

Among those patients in whom the onset of illness is in the form of a simple or hebephrenic type schizophrenia with the experience of feeling their own body offensive presenting itself as the incipient symptom or at a relatively early stage, there are some who have their personality disorganized to no serious extent, with the dread of emitting bad oders as a cardinal symptom leading to or replaced by delusion of persecution or morbid experiences characteristic of schizophrenia. Sometimes there are some patients who in the course of this replacement complain of their body odor leaking out from within. Fujinawa[21] made an attempt to interpret this experience as "egorrhea symptoms". This is quite extraneous to the experience of being influenced or invaded by a force working inward from outside, which is believed to be the kernel or essence of schizophrenia. Such a difference is highly implicative for the study of fear of emitting bad odors.

With the advance in the condition, the experience of something diffusing outward from within is sooner or later replaced by that in the opposite direction, which is peculiar to schizophrenia.

There are some patients who have the onset in puberty with dulling or inactivation of their way of life or "Praecoxgefühl" observable in the course of disease and whose condition is monosymptomatic with fear of emitting bad odors persisting solitarily over a considerable period of time. In some of those cases which were diagnosed by us as a simple type schizophrenia, it is very likely to be necessary to make a modified diagnosis of schizoid or other psychoses depending upon the course to be followed henceforth.

Most of the cases in which the condition arises early in life and persists long are patients with obsessional or anankastic neurosis. It may be that these patients came to the psychiatric outpatient clinic with flushing or anthropophobia rather than with fear of emitting bad odors as a chief complaint. To be sure, we have infrequently seen such patients at our clinic in these days. There are no adequate data as yet available to justify the conclusion that this is sheerly reflection of the structure of consciousness of youth that has been undergoing a change.

In patients with depression, the experience of feeling one's own body offensive is apparently so rare that we have not yet encountered any typical case. Those which we had are suffering from affective disorder of reaction rather than endogenous nature. Female casses of climacteric psychosis particularly a climacteric depressive state with fear of emitting bad odors have been documented, some of which correspond with the late onset type as designated by Kasahara[18]. In depression with a paranoid trait, the experience of feeling one's own body offensive can occur but is invariably transient in nature[18].

A typical or acute psychosis is rarely accompanied by the experience but rather often by an olfactory hallucination[22].

Impairment of personality maturation often underlies the fear of emitting bad odors that may be observed transiently in puberty. Under such circumstances, the dread is symptomatic of conflict reaction of adolescence. Most of such adolescent patients rarely take the trouble of seeking psychiatric advice but rather come to the health counselling center in the campus to have an interview. Most of them are not unsociable but rather amiable in character. This group of patients should be followed up over a prolonged period of time; some investigators have suggested the possibility of more serious mental derangement ensuing from this queer experience even after its subsidence or complete relief in these cases.

We have had only 2 cases of what may be called "mid-course onset type" which is not amenable to Kasahara's classification. One of them had a paranoid type schizophrenia and the other obsessional neurosis. The latter, in particular, had the experience in the form of a fixed idea This made us feel keenly the necessity of taking into due consideration the symptom-oriented Miyamoto's[19] classification as well as Kasahara's[18] based on time-course.

In none of the cases reported here there was a transition from an olfactory hallucination to the fear of emitting bad odors and vice versa. Durand's[23] explanation in directional terms that an olfactory hallucinati-

on is "egocentrique" whereas the fear of emitting bad odors in "exocentrique" is well persuasive.

As discussed earlier, the experience of feeling one's own body offensive can occur in different psychoses but often in schizophrenia or adjacent fields. This is a feature which may provide a clue to elucidating the essence of schizophrenia. It is hoped that patients afflicted with the experience will be submitted to a more extensive follow-up study and closer psychopathological evaluation.

SUMMARY

Thirty-eight cases of fear of emitting bad odors have been presented. Of these, 12 (including 2 females) had early onset of the fear, which led later to personality disorganization; 11 (including 6 females) had early onset of the fear, which was later replaced by other symptoms; 9 (including 2 females) had early onset of the fear, which has since persisted as a solitary symptom; 4 (including 1 female) had early onset of the fear, which then disappeared rapidly; and 2 (both male) complained of the fear concurrently with other symptoms.

The fear of emitting bad odors is a symptom quite different from an olfactory hallucination in that it has a characteristic feature of an odor being given forth from within, contrary to the latter in which the odor is brought in from outside.

It is important to make a follow-up study over a prolonged period of time in cases of the fear, which is closely related to schizophrenia and related psychoses.

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