Supplementary Effect of Oyster Extract on Depressed Patients under Treatment with Antidepressants

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SUMMARY

Clinical effects of oyster extract (*Crassostrea Gigas:* made by Japan Clinic Co., Ltd.) on 20 depressed patients were examined. About 10 tablets (2g) of oyster extract were administered to 6 subjects as the initial dose without dosage modification of antidepressants for about 10 days. The dose of oyster extract was adjusted over one month following the clinical effects. Psychomotor retardation and reduced appetite were judged to be the earliest depressive features to improve from our clinical observation. But, these improvements were not maintained long and did not correlated positively to the amount of doses. In no subjects, melancholic mood diminished completely. Decreased sleep, agitation and changes into manic state were observed as adverse effects. These findings were confirmed through the additive 14 cases with smaller doses.

INTRODUCTION

When oyster extract (*Crassostrea Gigas:* made by Japan Clinic Co., Ltd. see Table 1) was administered 10 tablets (2g) per day for 1 month and 15 tablets for 2 months in succession without dosage modification of neuroleptic drugs to 10 schizophrenic inpatients, depressive mood, motor retardation, blunted affect, emotional withdrawal and uncooperativeness were judged to improve significantly by using Brief Psychiatric Rating Scale especially in two young patients, who were given a diagnosis of undifferentiated type schizophrenia by using Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) criteria, after 10 days oyster administration. When examining these two young patients minutely, they revealed visible trait of Affective Disorders in the Rorschach test findings before oyster administration. These improvements were maintained during the period of clinical trial (3 months) and one month after that as had reported previously[1]. From this study, oyster extract is suspected to be effectual on depressed patients.

MATERIALS AND METHODS

About 10 tablets of oyster extract were administered to 6 subjects (♂:♀=1:1; their mean age was 41 years, given a diagnosis of Anorexia Nervosa, Major Depression and Bipolar Disorder by the diagnostic criteria from DSM-III) as the initial dose without dosage modification of antidepressants for 10 days. The dose of oyster extract was adjusted gradually over one month following the clinical effects as shown in Table 2. The change in a variety of depressive symptoms was judged from two

Table 1. Components of Oyster Extract (100 g)

Total		Mineral (mg)	
Energy	334 Kcal	P	855
Protein (1)	22.8 g	Fe	21.0
Lipid	0.7 g	Co	553
Non-fibrous carbohydrates (2)	58.4 g	Na	2670
Fiber	0.6 g	K	1980
Ashes fraction	13.7 g	Mg	367
Amino acid (g)		Cu	5.63
Arginine,	0.58	Zn	64.3
Lysine	0.66	Mn	5.36
Histidine	0.37	Co	0.02
Phenylalanine	0.30	Sn	0.138
Tyrosine	0.27	Li	0.09
Leucine	0.50	I	0.9
Isoleucine	0.32	Vitamin (mg)	
Methionine	0.21	A	25 (IU)
Valine	0.44	B_1	86.7
Alanine	1.32	B_2	84.4
Glycine	1.15	B_6	0.19
Proline	1.39	B_{12}	52 (μg)
Glutamic acid	2.63	E	392
Serine	0.50	Biotin	9.4 (μg)
Threonine	0.52	Inositol	111
Aspartic acid	1.14	Choline	310
Tryptophan	0.10	(1) Taurine 4.41 g	
Cystine	0.23	(2) Glycogen 34.1 g	

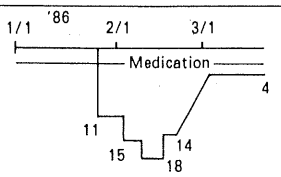
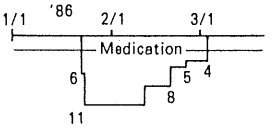
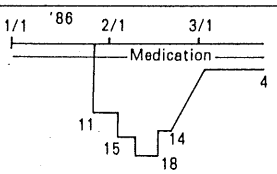
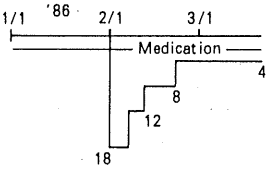
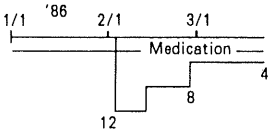
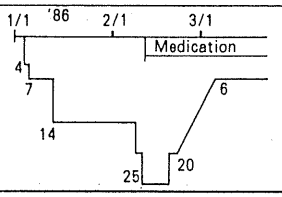
psychiatrists' subjective clinical impression. Follwing this pilot study, additive fourteen cases (♂:♀=5:9; their mean age was 45 years, given a diagnosis of Anorexia Nervosa, Depressive Neurosis and Major Depression) were examined with smaller doses of oyster extract after almost the same methods as shown in Table. 3. All the 20 patients gave informed consent.

Effects of oyster extract on 20 normal control subjects (♂:♀=1:1; their mean age was 31 years) were examined with 3 tablets per day as the initial single dose and 6 to 10 tablets per day in succession during 10 days as shown in Figure 1.

RESULTS

Psychomotor retardation and reduced appetite were judged to be the earliest depressive features to improve through 20 cases of depressed patients. These improvements occurred within a day in some case (case No. 2; in Table 2), but these improvements were not maintained long enough and did not correlate positively to the amount of doses. As the results, the improvement of psychomotor retardation was observed in 15 of 20 depressed patients (75%). Favourable weight gain was

Table 2. Effects of Oyster Extract on Depressed Patients

Subject (Duration)	Method	Medication	Result
No. 1 ♀ 32 years Major Depression (6 years)		IM 30 mg/day AM 75 SL 150 PB 50 OX 10 FL 2	〈Slightly improved〉 Morning sickness was diminished but depressed in the afternoon again and complained of decreased sleep.
No. 2 ♀ 54 years Major Depression (1 month)		IM 30 mg/day AM 10 SL 100 OX 30 FL 2	〈Remarkably improved〉 She got better on that day of administration and complained of hunger.
No. 3 ♀ 57 years Bipolar Disorder (6 years)		IM 105 mg/day AM 25 SL 150 PH 10 PB 50 PR 30 FL 1	〈Slightly improved〉 She got better for a few days very slightly
NO. 4 ♂ 49 years Bipolar Disorder (7 years)		LI 200 mg/day IM 125 AM 25 SL 100 PB 50 TR 6 EX 2	〈Moderately improved〉 He changed into hypomaic state after 3 days administration
No. 5 ♂ 32 years Anorexia Nervosa (1 year)		IM 75 mg/day AM 25 CA 75 PH 12 SL 150 TR 6 ET 3 FL 2	〈Slightly improved〉 Appetite increased
No. 6 ♂ 25 years Bipolar Disorder (8 years)		IM 55 mg/day TZ 0.5 (one month after)	〈Remarkably improved〉 He got better after 2 days of administration. one month after he got depressed again and medicated

IM : Imipramine
AM : Amitriptyline
SL : Sulpiride
OX : Oxazolam
PH : Perphenazine
PB : Pentobarbital
PR : Promethazine
LI : Lithium carbonate
EX : Estazolam
CA : Carpipramine
ET : Etizolam
FL : Flunitrazepam
TR : Trihexyphenidyl
TZ : Triazolam

observed in a case of Anorexia Nervosa (case No. 3; in Table 3) with ordinary intravenous nutritional supply. In no patients, melancholic mood diminished completely. Decreased sleep, agitation, changes into manic state and allergic reactions were observed as adverse effects, and two cases dropped out from our clinical open trial (case No. 9 & No. 11; in Table 3).

Acceleration of drive, hypomanic state and decreased sleep were observed within a few days in 13

Table 3. Effects of Oyster Extract on Depressed Patients with Smaller Doses

Case	Sex	Age	Type	Duration (years)	Medication (mg × day)	Amount of Oyster Extract (Tablet × day)	Results	Adverse Effect	Note
1	♂	40	N	15	MZ : 5 × 14	3 × 14	(−)	(−)	No effect on mood
2	♂	54	N	6	MT : 10, FL : 2 HZ : 5) × 28	5 × 4 3 × 10 2 × 14	(+)	Exitement and decreased sleep	No effect on mood but lessened his shoulder pain
3	♀	33	A	1 month	None	1 × 7	(+)	(−)	Weight increased (27 kg → 31.5 kg)
4	♀	41	D	9	FL : 2 × 4	6 × 4	(+)	(−)	No effect on mood
5	♀	34	D	1/2	FL : 2× 42	5 × 14 4 × 28	(++)	(−)	Appetite and drive increased
6	♀	75	N	1 month	None	4 × 7 2 × 14	(−)	(−)	No effect on anxiety and agitation
7	♂	41	D	4 months	AM : 40, PB : 50 OZ : 30, FL : 1) × 20	6 × 20	(+)	(−)	Appetite and drive increased
8	♂	45	D	2 months	AM : 30, FL : 2 ET : 3) × 30	6 × 30	(−)	Heartburn	No effect on anxiety and agitation
9	♂	58	D	1	IM : 30, AM : 10 OX : 30, SL : 100) × 5	3 × 5	Worsened	Agitation	Agitation increased
10	♀	41	D	1 month	IM : 20, SL : 150 FL : 2) × 21	4 × 7 3 × 14	(+)	(−)	Appetite and drive increased
11	♀	37	D	1 week	SL : 150, PB : 50 EX : 2) × 4	2 × 4		Edema in face	She got better but dropped out for adverse effect of edema
12	♀	34	D	1 month	AM : 40, SL : 150 OZ : 30, FL : 2) × 12	4 × 5 2 × 7	(+)	(−)	Suicidal ideation disappeared
13	♀	46	D	1	AM : 30, SL : 150 OZ : 30, FL : 2) × 7	3 × 7	(+)	Agitation	Appetite and drive increased
14	♀	52	D	1/2	IM : 30, SL : 100 OX : 30, AB : 100) × 14	3 × 14	(+)	(−)	Appetite and drive increased

A = Anorexia Nervosa
N = Depressive Neurosis
D = Major Depression
B = Bipolar Disorder

(−) = Unchanged
(+) = Slightly improved
(++) = Moderately 〃
(+++) = Remarkably 〃

IM : Imipramine
AM : Amitriptyline
SL : Sulpiride
OX : Oxazolam
FL : Flunitrazepam
EX : Estazolam
ET : Etizolam
PB : Pentobarbital

of 20 normal control subjects (65%). Besides decreased sleep, agitation, heartburn, exhausted feeling, nausea and diarrhoea were observed as adverse effects in 9 dropped out cases (45%) as shown in Figure 1.

DISCUSSION

From these findings, the present authors assert that oyster extract has a splendid tonic or stimulating effect upon human body and mind, even if the mechanism of its action is still not clear. Because, oyster extract contains too many contents such as essential amino acids, taurine,[2-5] minerals, vitamins, glycogen and others.

Reinforcement of some trait of Personality Disorders (obsessive-compulsive, aggressive and self-advertising) was observed in some normal control subjects.

Rebound phenomenon was observed in some patients (case No. 2; in Table 2 and case No. 10; in Table 3).

Assessment of clinical therapeutic evaluation by using Self Rating Depression Scale (by Zung) was failed in and could not be carried out for the reason of too rapid but short acting effects on some

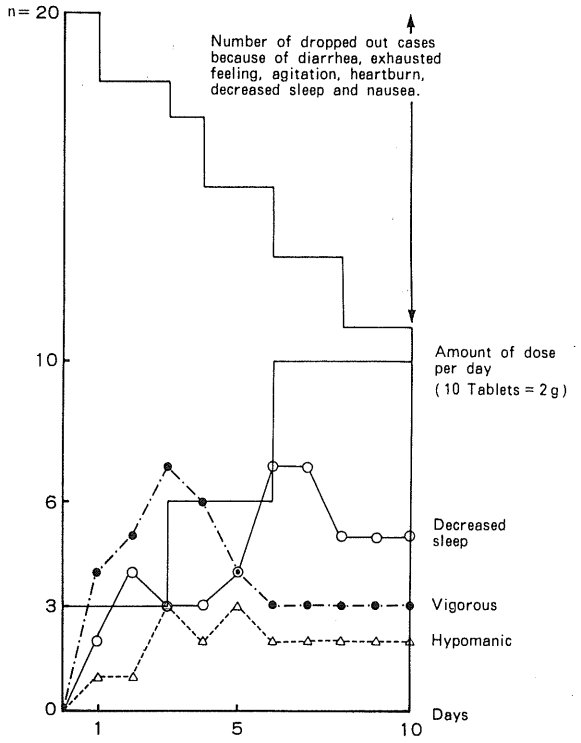


Fig. 1. Effects of oyster extract on normal control subjects.

depressed patients (case No. 1; in Table 2).

Considering the fact that several days are needed to take certain effects on depressed states under treatment with tricyclic antidepressants, which are the most common antidepressants at present, it must be asserted that oyster extract plays a good supplementary role for its rapid effect on depressed states, especially in Major Depression and Bipolar Disorder, whose main clinical feature is psychomotor retardation.

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