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Mauve factor pyrrole as marker of metabolic syndrome after food intervention with prolonged involved foodstuff items

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Abstract
Mauve factor pyrrole is a metabolic syndrome due to an abnormality in the synthesis and metabolism of Kryptopyrrole which as markers of psychiatric disorders. The aim of this research investigated conceded limit and how much influence the role of nutrition foodstuff which is involved in correcting pyrrole. For that reason forty volunteers patients were divided into to four categories as ten patients for each category Depression, Bipolar, Schizophrenia and Attention Deficit Hyperactivity disorder (ADHD) respectively were subjected. After food intervention with prolonged involved foodstuff items sources supplied for zinc and Pyridoxal phosphate, Eicosapentaenoic acid, Arachidonic acid, Omega-3 and omega-6 . It was recommended to take three or more portions of the foodstuff which enhancement involved in metabolic disorder - mauve factor- pyrroles among many mental disorders cohort. Mauve factor was enhancement and tend to be normal among all case studies within 90 to 684 days.

Key words: Kryptopyrrole, hydroxyhaemopyrrolin-2-one (HPL), EPA, ARA, foodstuff, mauve factor, mental disorders, psychiatric, desaturase enzyme, food items.

1. Introduction

Mauve factor pyrrole is a metabolic syndrome due to an abnormality in the synthesis and metabolism of Kryptopyrrole which is conceder as marker of psychiatric disorders. With food intervention so mostly vitamin B_6 and Zinc produces urinary excretion of HPL (hydroxyhemopyrrolin-2-one) and improves diverse neurobehavioral symptoms (Pfeiffer, 1987). Mild deficiency of omega-3, alpha linolenic acid (ALA) and eicosapentaeonic acid (EPA),compared to omega-6 fats and oils among payrolls 'cohort (SanGiovanni ,2005 and Harris et al., 2010). In subjects with elevated urinary HPL. Heightened HPL excretion

classically associates with emotional stress (Kanabrocki et al., 2002), which in turn is known to associate with oxidative stress. In this work, markers for nutritional status and indirectly for oxidative stress were examined in relationship to urinary HPL. Depended above this research investigated border and haw much influence the role of foodstuff which involved correcting pyrrole was carry on.

2. Material and Methods

2.1. Subject

Forty patients were divided into classified to four categories as ten patients for each category Depression, Bipolar, Schizophrenia and ADHD respectively age range from fifteen to fifty year old.

The widespread rang refer to quarter of cohort was attention deficit hyperactivity disorder (ADHD) range from fifty to twenty years old.

2.3. Methods

2.3.1. Strategic which was applied for involved foodstuff items

Explained briefly for foodstuff items portions and its exchange were carrying on for persons which care with patient.

The following was applied involved foodstuff items:

A) Pyridoxal phosphate

168g from tuna fillet , fillet Salmon, Lean Chicken Breast, turkey, turkey breast or thigh ,84g buffalo sirloin, beef , beef hamburger ,186g Sweet Potatoes, 1 cup of spinach , peas , 1 cup sliced banana, mango pieces, pineapple, honeydew melon, a medium potato184gm, avocado, Pistachios , 10 roasted chestnuts ,28g of dried sunflower seeds, walnuts. 36mg zinc per 6 oysters, king crab leg, 20 small clams, 84g lobster, octopus, rib eye, red meat, 1 cup of roast duck, Chicken thigh, 28g cashews, 1cup Lentils, black-eyed peas, 448g milk, 3/4 cup Oatmeal.

B) Omega-3 and omega-6

28g Flax Seeds,2 tablespoon, 140gm herring fillet , 184g tuna fillet , 84g of canned salmon , Chia Seeds,1 tablespoon Canola Oil, soybean oil , mustard oil, 1 cup of kidney beans, 1 cup of Chinese broccoli , winter squash , broccoli , zucchini , Spinach, guavas , raspberries ,blackberries, strawberries , blueberries , mangoes .

C) Highly biological proteins

White egg, chicken thigh, turkey thigh, tuna, Salomon, skim yoghurt, milk.

D) Zinc

36mg zinc per 6 oysters, king crab leg, 20 small clams, 84gm lobster, octopus, rib eye, red meat, 1 cup of roast duck, Chicken thigh, 28gm cashews, 1cup Lentils, black-eyed peas, 448gm milk, 3/4 cup Oatmeal.

Omega-3 and omega-6

28gm Flax Seeds,2 tablespoon, 140gm herring fillet , 184gm tuna fillet , 84gm of canned salmon , Chia Seeds,1 tablespoon Canola Oil, soybean oil , mustard oil, 1 cup of kidney beans, 1 cup of Chinese broccoli , winter squash , broccoli , zucchini , Spinach, guavas , raspberries ,blackberries, strawberries , blueberries , mangoes .

It was recommended to take three or more portions of the foodstuff which enhancement involved in metabolic disorder - mauve factor- pyrroles among many mental disorders cohort.

2.3.2. Laboratory Test

2.3.2.1. Homocysteine according to Han et al., (1998).

2.3.2.2. Tryptophan according to ABIN3167378 Tryptophan 2, 3-Dioxygenase (TDO2) ELISA Kit

2.3.2.3. Tyrosine assay according to ABIN1981848 Tyrosine ELISA Kit

2.3.2.4. Phenylanine assay according to Phenylalanine Assay Kit ab83376

2.3.2.5. Pyridoxal phosphate assay according to Vitamin B6 , Plasma Test Code 926 CPT Code(s) 84207

2.3.2.6. Zinc according to Renata et al., (2015)

2.3.2.7. Eicosapentaenoic acid assay according to Rose and Oklander , (1965)

2.3.2.8. Arachidonic assay according to Volpato et al., (2016)

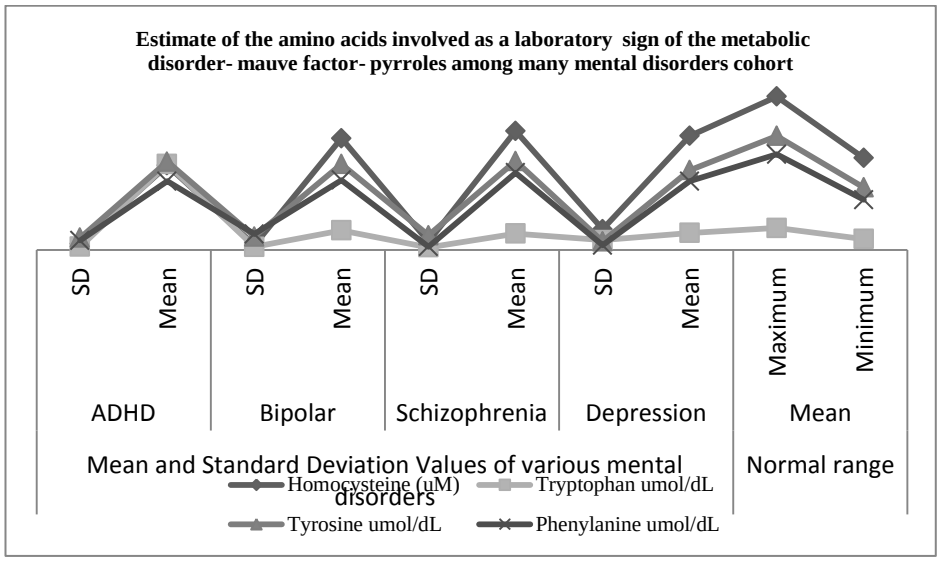
2.3.2.9. (PUFA) Omega-3 to omega-6 ratio according to Mikirova , (2015**)**

2.3.2.10 Urine mauve factor pyrrole-Kryptopyrrole- concentrations assay according to Mikirova , (2015**)**

3.Results and discussion

Table (1): Estimate of the amino acids involved as a laboratory sign of the metabolic disorder- mauve factor- pyrroles among many mental disorders cohort before intervention nutrition

Parameter and Units		Normal range		Mean and Standard Deviation Values of various mental disorders							
		Mean		Depression		Schizophrenia		Bipolar		ADHD	
amino acids involved	Unit	Minimum	Maximum	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Homocysteine	(uM)	7.5	12.5	9.3	1.7	9.7	0.69	9.1	0.39	6.9	0.51
Tryptophan	umol/dL	0.9	1.8	1.4	0.81	1.35	0.23	1.6	0.26	7.0	0.27
Tyrosine	umol/dL	5.1	9.3	6.5	0.7	7.25	1.2	7.0	1.1	7.2	1
Phenylanine	umol/dL	4.1	7.8	5.6	0.39	6.3	0.28	5.7	1.30	5.6	0.79



(Fig.1)

Homocysteine is not a classic amino acid found in dietary protein or used for the endogenous synthesis of proteins, but rather a sulfur-containing amino acid derived from the metabolism of methionine via methyl group metabolism according (Cantoni et al., 1980 & Cantoni et al., 1982). That is the relationship between homocysteine and neurological problems, such as depression, Schizophrenia, Bipolar, ADHD and Parkinson's disease (GU et al., 2012). Food intake will influence tryptophan, and therefore almost certainly in some circumstances will influence 5-HT function; there could be several other effects of food intake on brain function. The overall effect on the brain will depend on all these changes. In addition, psychological factors, social factors, and expectancy may play an important role in influencing mood and behavior after food ingestion. Therefore, it would not be surprising if the effects of food were different from the effects expected when considering only tryptophan and 5-HT changes. As the behavioral effects of food ingestion are not yet well delineated, it is not possible to give hard data in this area. Nonetheless, ingestion of a balanced meal is known to lower brain 5-HT metabolism in humans (Perez-Cruet et al., 1974) An experimentally induced lowering of 5-HT in normal subjects lowers mood, while most people would agree that a lowering of mood is not a normal concomitant of meal ingestion. Obviously, much work will be needed in order to determine the relative importance of altered brain tryptophan and other factors in controlling the mood and behavioral changes that occur after eating different foods.Tyrosine is a precursor to neurotransmitters, which include dopamine, norepinephrine, and epinephrine [Fernstrom, 2000]. Elevated levels of tyrosine increase the production of these neurotransmitters when our bodies need more of them [Jongkees et al., 2015). However, these situations have to be sufficiently challenging to require the extra release of neurotransmitters and subsequent depletion of these neurotransmitters. To

maintain optimal neural performance, tyrosine supplementations prevented the neurotransmitters from depleting (Jongkees et al., 2015).Data in table (1) and fig (1) agree with (Cantoni et al., 1980 & Cantoni et al., 1982;Fernstrom, 2000; GU et al., 2012 and Jongkees et al., 2015). Lower serum homocysteine concentrations were observed among those with higher Deficit Hyperactivity Disorder (DHA) in serum phospholipids in an apparently healthy Japanese population. This finding adds to evidence for a role of DHA in lowering homocysteine concentrations at relatively high DHA levels. The protective effect of n-3 polyunsaturated fatty acids (PUFA) may not be limited to Coronary Heart Disease (CHD); evidence from observational studies support a role of n-3 PUFA against dementia (Lin et al., 2012), the risk of which increased among persons with high homocysteine levels (Ford et al.,2012). Prospective studies in populations with high fish consumption are required to clarify whether a higher DHA status at baseline is associated with a future decline in blood homocysteine levels and risk of homocysteine-related diseases.

Table (2): Estimate of both Pyridoxal phosphate and Zinc involved as a laboratory sign of the metabolic disorder- mauve factor-pyrroles among many mental disorders cohort

case study Values of various mental disorders							
Depression		**Schizophrenia**		**Bipolar**		**ADHD**	
Nutritional intervention		**Nutritional intervention**		**Nutritional intervention**		**Nutritional intervention**	
before	**after**	**before**	**after**	**before**	**after**	**before**	**after**
Pyridoxal phosphate Normal range 5 to 50 µg/L							
0.41	5.1	0.5	4.2	0.64	4.5	4.5	5
0.6	5.6	0.9	4.6	0.62	5.6	2	6.2
0.47	4.5	1	5	0.65	4.6	3	6
0.22	6	0.8	2	1.33	6.5	4	7
0.45	6.5	3	3	2	6	1.5	6.9
0.26	4.1	0.91	5.4	1.8	7	1.69	6.8
0.24	5	0.79	4.5	1.5	7.2	3.4	7
0.45	4.9	3	4.9	1.65	6.8	4.67	4.9
0.47	3	0.59	6	2	7	3	7.1
0.15	6.2	4.1	5	3	7.5	1.5	7.65
Mean ± SD							
0.43	5.05	0.905	4.75	1.575	6.65	3	6.85
0.14	1.06	1.29	1.17	0.75	1.07	1.22	0.92

Zinc Normal range 5 to 50 ug/mL							
0.67	6	0.66	7	0.83	8.2	0.49	4.6
0.78	8	0.71	6	0.8	6.8	0.56	3.8
0.51	6.2	0.74	7	0.75	8.1	0.61	4.9
0.88	7.3	0.72	8.1	0.76	7.3	0.46	3.9
0.94	6.5	.6.9	4.6	0.7	7.6	0.62	4.7
6	7	0.71	6.8	0.7	0.74	0.62	4.6
0.49	5.8	0.73	7.5	0.82	7.8	0.61	4.9
0.78	6.9	7.3	6.7	0.64	7.9	0.6	4.5
0.72	7.3	7.4	7.3	0.69	0.7.1	0.61	4.1
4	7.2	0.7	7.6	0.57	0.79	0.6	4.6
Mean ± SD							
0.49	5.8	0.66	4.6	0.57	0.74	0.46	3.8
1.80	0.72	2.80	1.15	0.09	3.36	0.06	0.42

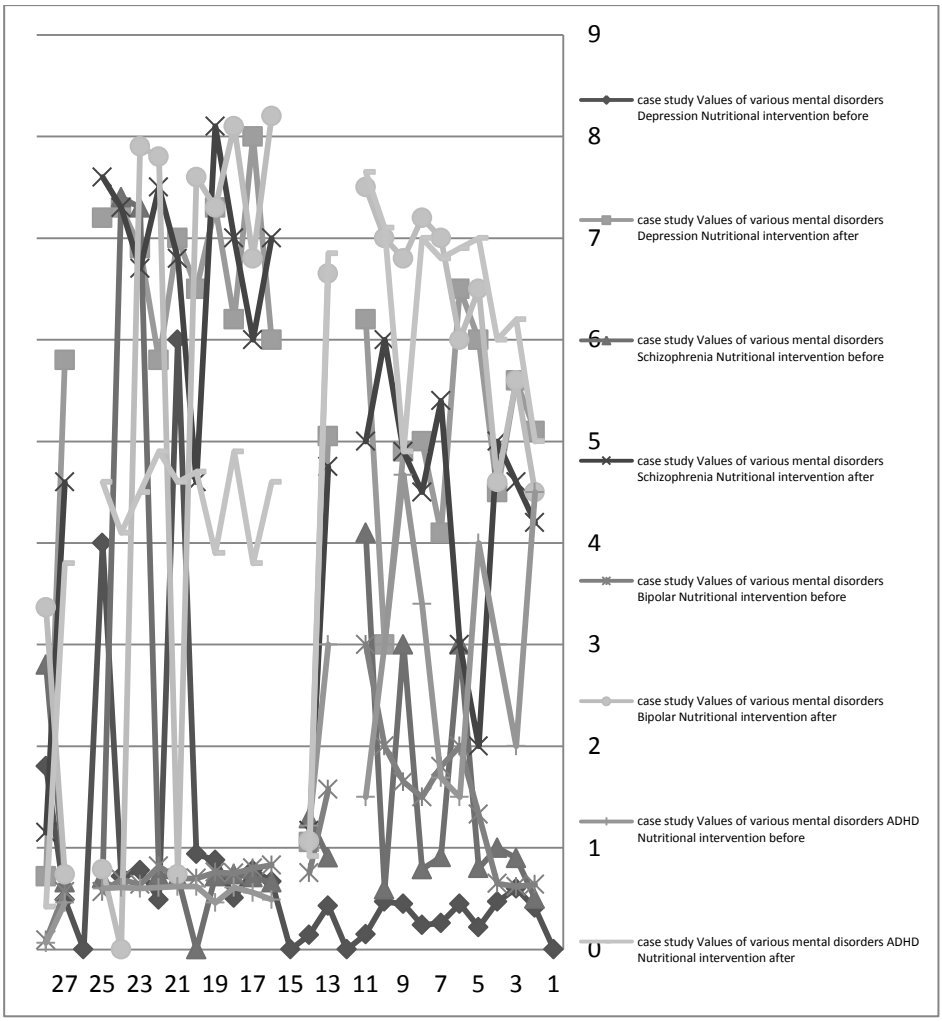


Fig.(2: Estimate of both Pyridoxal phosphate and Zinc involved as a lab sign of the metabolic disorder- mauve factor- pyrroles among many mental disorders cohort)

Conclusive proof pyridoxamine was effective in alleviating psychotic symptoms in a subset of psychos' patients with enhanced carbonyl stress (Miyata et al., 1999). Also, Pyridoxal phosphate enhancement psychos' symptoms for Depression, Schizophrenia, Bipolar and ADHD according to Lerner et al., (1999); Lerner et al., (2000); Levine et al.,(2006); Arai et al., (2011) and Miyashita et al., (2014) the results agree with these are referred to previously. Zinc is another

essential cofactor for neurotransmitter metabolism which affects DA metabolism. Zinc deficiency is associated with behavior problems in children with ADHD (Caylak, 2012). Although a systematic review of randomized controlled clinical trials demonstrated that using zinc, either alone or in combination with stimulants, did not improve ADHD symptoms (Ghanizadeh and Berk, 2013), a meta-analysis reported a reduced serum/plasma/urine levels in ADHD (Scassellati et al.,2012). Zinc can lead to development of serious metabolic disturbances or disorders, including psychiatric disorders (Naylor, 1985 and Frederickson, 1989). Many of the physiological processes that include contribution of zinc or copper are considered to be crucial in etiology of psychiatric disorders. Among those processes are, among others, neurogenesis, synaptogenesis, neuron growth, signal neurotransmission, cognitive, learning and memory processes (Maret & Sandstead ,2006 and Nowak,2015).The low level of differences in serum zinc concentrations among Depression, Schizophrenia, Bipolar and ADHD patients might indicate that those disorders have similar etiology. The results agree with Caylak, (2012); Scassellati et al., (2012) and Nowak, (2015).

Table (3): Estimate of the fatty acids involved as a laboratory sign of the metabolic disorder - mauve factor- pyrroles among many mental disorders cohort

Case study Values of various mental disorders

Depression		Schizophrenia		Bipolar		ADHD	
Nutritional intervention		Nutritional intervention		Nutritional intervention		Nutritional intervention	
before	after	before	after	before	after	before	after
EPA (RBC) Eicosapentaenoic acid 20:5(n-3) (uM/L)							
7	9	11	13.5	11	13	9.6	11
8	8.7	11.4	12.9	11.1	14	9	11
6.5	10	13	14.5	9	12	9.7	13
6	12	11.2	16	11.4	13	8	11.5
7	13	11.5	11.9	12	15	9.9	13
4	11.9	13	16	9.4	12.5	12	15
5.6	14	9	13.4	11.1	13.5	10	13
6.7	13.1	10.8	13.4	11.2	14	10.8	14
7	14.6	11	14	12.5	16	9.5	11.5

80	15.1	12	16	11	14	9.5	12
Mean ± SD							
6.85	12.5	11.3	13.75	11.1	13.75	9.65	12.5
23.29	2.27	1.15	1.44	1.06	1.18	1.05	1.33
Arachidonic: 20:4(n-6) ARA (RBC) Ratio							
17.6	11	18	16.7	19	16	20	11
16.7	11	17	8	20	15	18	13
16.5	12.5	17.4	11	18.1	16	19	12
18	14	17.9	14	17	14	21	14
17	10.9	17.8	15	13	16	20	12
19	13	17.5	11	17.6	13.9	22	15
16.8	15	17.6	13	17.9	14	12.5	12
19	13	18	14	15	16	23	13
19.8	11.3	18.5	12	17.8	17	20	14
18.4	11.5	15.8	13.1	16.8	16.8	20	14
Mean ± SD							
16.5	10.9	15.8	8	13	13.9	12.5	11
1.16	1.41	0.88	2.72	2.28	1.20	3.44	1.33
(PUFA) Omega-3 and omega-6							
0.40	0.82	0.61	0.81	0.58	0.81	0.48	1.00
0.48	0.79	0.67	1.61	0.56	0.93	0.50	0.85
0.39	0.80	0.75	1.32	0.50	0.75	0.51	1.08
0.33	0.86	0.63	1.14	0.67	0.93	0.38	0.82
0.41	1.19	0.65	0.79	0.92	0.94	0.50	1.08
0.21	0.92	0.74	1.45	0.53	0.90	0.55	1.00
0.33	0.93	0.51	1.03	0.62	0.96	0.80	1.08
0.35	1.01	0.60	0.96	0.75	0.88	0.47	1.08
0.35	1.29	0.59	1.17	0.70	0.94	0.48	0.82
4.35	1.31	0.76	1.22	0.65	0.83	0.48	0.86
Mean ± SD							
0.21	0.79	0.51	0.79	0.50	0.75	0.38	0.82
1.21	0.20	0.09	0.27	0.13	0.08	0.11	0.12

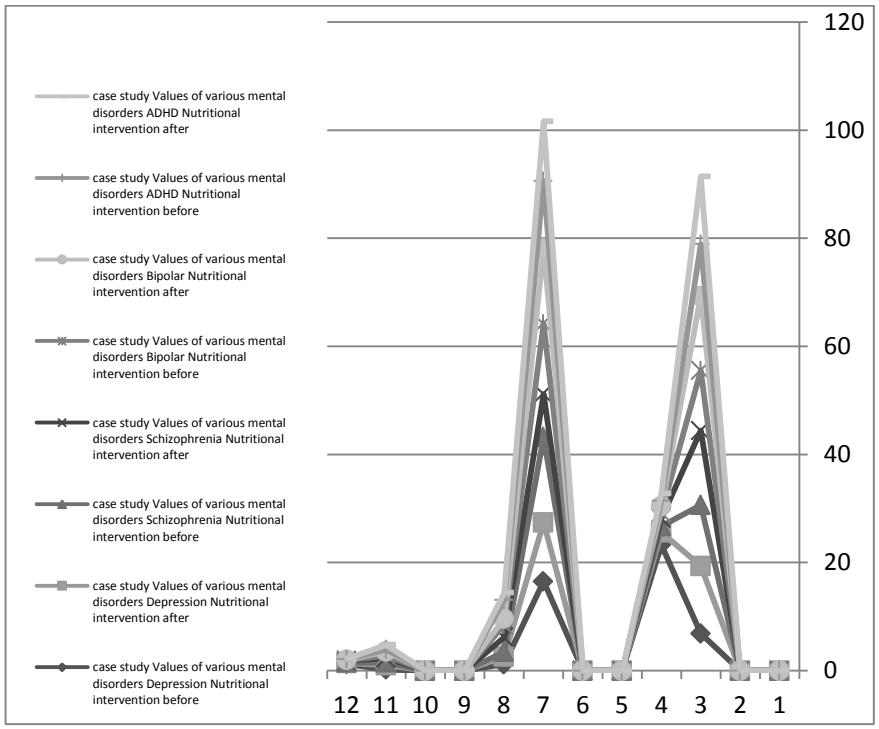


Fig. (3: Estimate of the fatty acids involved as a laboratory sign of the metabolic disorder - mauve factor- pyrroles among many mental disorders cohort)

Psychotic patients' have a mutant delta-6-desaturase which prefers the omega-6-series essential fatty acids over the omega-3 series essential fatty acids resulting in low cis-linoleic acid blood levels. This subgroup may be related to the low histamine type schizophrenia. In contrast, I hope to describe the possible existence of another group of schizophrenic patients with elevated cis-linoleic acid blood levels, elevated fasting insulin levels, elevated EGOT and urinary kryptopyrolle termed “delta-6-pyroluria.” The etiology of this group may be due to a block instead of a mutant delta-6-desaturase. The elevated fasting insulin level may be an attempt to overcome the malfunctioning pathway (Heleniak and Lamola,1986).Also, have mild deficiency of omega-3, alpha linolenic acid (ALA) and

eicosapentaeonic acid (EPA) as compared to omega-6 fats and oils (Rudin , 1981, 1982 and 1983). Delta 6 desaturase (D6D or Δ-6-desaturase) is a desaturase enzyme that converts between types of fatty acids (termed 6 after omega-6 fatty acids), which are essential nutrients in the human body (Nakamura & Nara2004 and Lee et al., 2016). Epidemiologic data on this issue so far have been derived from populations with low n-3 PUFA intakes, and the evidence is lacking in a population with high n-3 (Schneede et al., 2000). The brain contains a high concentration of PUFA -approximately 20 percent of dry weight-, while in the nervous system, one third fatty acids (FAs) belong to the PUFA group. (Bourre et al., 1991, and Yehuda et al., 1999) Given the high concentration of EFAs in the nervous system, it is not unexpected that investigators have focused on the role of omega-3 fatty acids in brain function. Recent research underline the important role of these fatty acids in central nervous system (CNS) function, and the potential EFAs have in the treatment of various neuropsychiatric disorders. While beneficial effects of omega-3 fatty acids have been associate to Alzheimer's disease (Barberger et al., 2002) attention deficit hyperactivity disorder (ADHD),(Richardson and Puri 2002) autism, (Vancassel et al.,2001) schizophrenia, (Assies et al.,2001) hostility,(Hamazaki et al., 2001) anxiety,(Mamalakis et al.,1998) and bipolar disorder,(Stoll et al.,1999) the focus of this article will be the role of omega-3 fatty acids in the neurobiology and treatment of major depressive disorder. Data agree with, Stoll et al., (1999); Assieset al., (2001) and Marlene et al., (2006).

Table (4): Changes in urine mauve factor pyrrole-Kryptopyrrole-**concentrations (ug/dl) in subjects after food intervention with prolonged involved foodstuff items'**

Subjects numbers	Diagnosis	Pyrrole (max)	Pyrrole (end value)	Days of treatment	Subjects	Diagnosis	Pyrrole (max)	Pyrrole (end value)	Days of treatment
1	Depression	48	23	90	21	Bipolar	63	30	200
2	Depression	64	40	120	22	Bipolar	94	32	300
3	Depression	161	33	300	23	Bipolar	120	24	380
4	Depression	84	16	156	24	Bipolar	69	25	220
5	Depression	94	50	175	25	Bipolar	59	30	188
6	Depression	129	25	240	26	Bipolar	56	29	177
7	Depression	161	24	300	27	Bipolar	49	18	155
8	Depression	221	14	411	28	Bipolar	23	29	72
9	Depression	67	35	125	29	Bipolar	28	17	89
10	Depression	89	35	165	30	Bipolar	60	40	190

mean		91.29	29	170	**mean**		59.44	29	189
SD		54.69	11.15	101.85	**SD**		28.56	6.77	90.81
11	Schizophrenia	44	22	110	31	ADHD	93	19	362
12	Schizophrenia	125	60	310	32	ADHD	180	17	701
13	Schizophrenia	36	32	90	33	ADHD	170	32	662
14	Schizophrenia	172	25	427	34	ADHD	100	18	390
15	Schizophrenia	49	12	123	35	ADHD	90	30	351
16	Schizophrenia	62	19	154	36	ADHD	58	16	226
17	Schizophrenia	275	26	684	37	ADHD	90	28	351
18	Schizophrenia	209	34	519	38	ADHD	94	15	366
19	Schizophrenia	104	31	258	39	ADHD	95	23	370
20	Schizophrenia	116	33	288	40	ADHD	90	26	351
mean		109.73	28.5	273	**mean**		93.5	21	364.21
SD		78.84	13.25	196.15	**SD**		38.17	6.24	148.69

Strategic which was applied for involved foodstuff items

Pyridoxal phosphate

168gm from tuna fillet , fillet Salmon, Lean Chicken Breast, turkey, turkey breast or thigh ,84gm buffalo sirloin, beef , beef hamburger ,186gm Sweet Potatoes, 1 cup of spinach , peas , 1 cup sliced banana, mango pieces, pineapple, honeydew melon, a medium potatoes184gm, avocado, Pistachios , 10 roasted chestnuts ,28gm of dried sunflower seeds, walnuts.

Zinc

36mg zinc per 6 oysters, king crab leg, 20 small clams, 84gm lobster, octopus, ribeye, red meat, 1 cup of roast duck, Chicken thigh,28gm cashews,1cup Lentils , black-eyed peas, 448gm milk, 3/4 cup Oatmeal.

Omega-3 and omega-6

28gm Flax Seeds,2 tablespoon, 140gm herring fillet , 184gm tuna fillet , 84gm of canned salmon , Chia Seeds,1 tablespoon Canola Oil, soybean oil , mustard oil, 1 cup of kidney beans, 1 cup of Chinese broccoli , winter squash , broccoli , zucchini , Spinach, guavas , raspberries ,blackberries, strawberries , blueberries , mangoes .

Highly biological proteins

White egg, chicken thigh, turkey thigh, tuna, Salomon, skim yoghurt, milk.

Pay attention remarkable: It was recommended to take three or more portions of the foodstuff which enhancement involved in metabolic disorder - mauve factor- pyrroles among many mental disorders cohort.

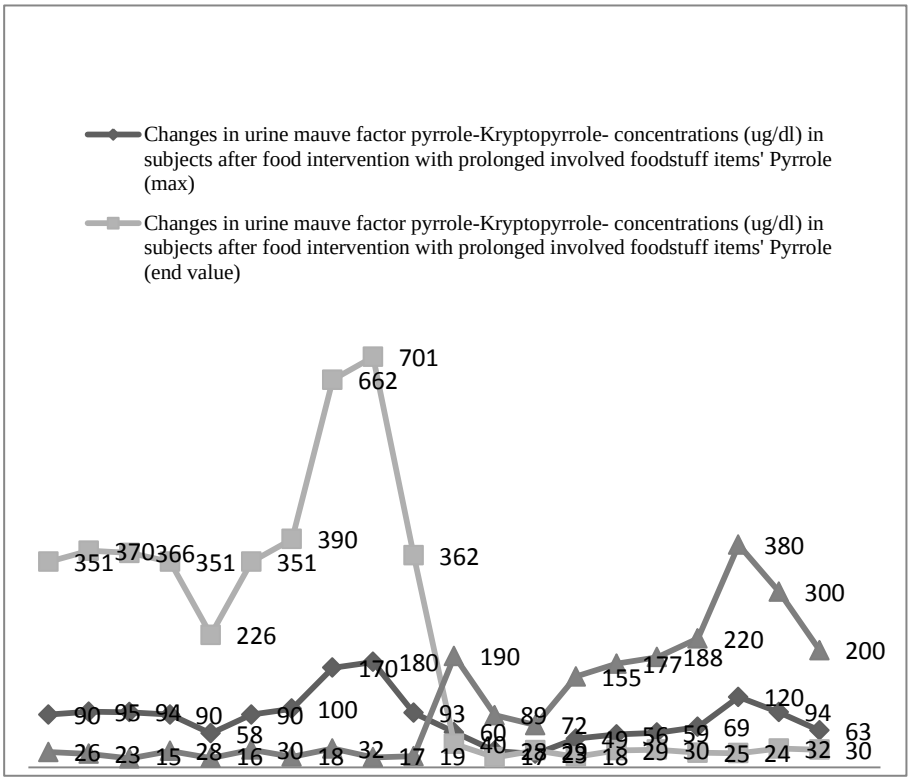


Fig. (4: Changes in urine mauve factor pyrrole-Kryptopyrrole- concentrations (ug/dl) in subjects after food intervention with prolonged involved foodstuff items')

Urine mauve factor pyrrole-Kryptopyrrole related to a condition that results in a more production of pyrroles which know as hydroxyhaemopyrrolin-2-one (HPL). HPL is a by-product of

hemoglobin (Hb) synthesis and the disorder due to an abnormality in the synthesis and metabolism of Hbl (McGinnis[a] et al,2008- McGinnis[b] et al,2008) thus, "High-Mauve" denotes subjects or groups with elevated HPL or with a tendency to excrete excess HPL, and should be used instead of the term "pyrroluria" which lacks specificity, as many pyrroles appear in urine(Woody et al.,2008). HPL may be a product of isocoproporphyrins, abnormal porphyrins (pigments) that result from altered heme production (Cooper et al., 2005).

Ingestion of large amounts of dietary sources of the pyrrole variety—coffee, tea, cola drinks, chlorophyll, tobacco, tryptophan, vitamin B12—does NOT increase HPL excretion (Pfeiffer et al., 1988). All humans seem to excrete small quantities of HPL in urine (Irvine, 1973). Normal concentration of HPL in urine is estimated at 2 to 25 µg/dL (Hoffer, 1995; Hoffer and Osmond, 1962). Urinary HPL levels over twice the upper limit of normal are considered highly elevated, but very high HPL measurements—hundreds of micrograms per deciliter—are also reported HPL detectable in human blood and cerebrospinal fluid (Irvine, 1974). Injection of HPL decreased activity in rats, while increasing aggressive behavior, while a higher dose of HPL increased head-twitch and backward locomotion, behaviors usually associated with hallucinogens (Corne and Pickering, 1967) Above-normal HPL excretion corresponds to subnormal vitamin B6 and zinc with remarkable consistency (Ward , 1975).

High-Mauve was reported in psychosis, alcoholism and substance abuse, psychoneurosis, and in many cognitive, affective, and neurobehavioral disorders (McCabe, 1983). Individuals with high-Mauve cannot efficiently create serotonin –a neurotransmitter that contributes to feelings of well-being and happiness, and reduces anxiety and depression, since vitamin B6 is an important factor in the last step of serotonin production (Dakshinamurti and Dakshinamurti , 2015). Numerous signs, symptoms, and traits have been observed in association with Mauve Poor dream recall and mild morning nausea/breakfast anorexia may relate especially to B6 deficiency (Pfeiffer[a], 1976; Pfeiffer & Holford, 1987; Pfeiffer & Audette, 1988, Pfeiffer & Jenney, 1976). Pfeiffer[b],(1976) mentioned to that stretch marks result from a combined deficiency of B6 and zinc also, White flecks in the nails are responsive to zinc (Pfeiffer and Holford ,1987,

Pfeiffer et al., 1988 and Pfeiffer & Jenney,1974) they reported detectable in 60% of high-Mauve subjects. Cutler, (1974) reported that HPL was examined in relationship to 3 different measurements for zinc. As discussed earlier, McGinnisa[a]et al., (2008)reported that plasma zinc and Single-void colorimetric HPL correlated significantly once normalized Cellular zinc levels correlated more strongly with urinary HPL, Poor dream recall, Nail spots Stretch marks (striae),Pale skin/poor tanning, Coarse eyebrows, Knee and joint pain, Acne Allergy, Cold hands or feet, Abdominal tenderness, Stitch in side, Constipation, Morning nausea, Light/sound/odor intolerance, Tremor/shaking/spasms, Hypoglycemia/glucose intolerance Obesity, Migraine, Delayed puberty, Amenorrhea/irregular periods, Impotence, Eosinophilia,B6-responsive anemia, Attention deficit/hyperactivity, Crime and delinquency, Substance abuse Alcoholism, Stress intolerance, Emotional lability, Explosive anger, Anxiety, Pessimism, Dyslexia Familial or social withdrawal, Depression, Paranoia, Hallucinations, Disordered perception, Bipolar disorder, Autism (Hoffer,1995; Pfeiffer et al.,1974; Pfeiffer and Bacchi ,1975). Data was tabulated in table (4) agree with (Pfeiffer, 1987; Brodie et al.,1976; Pfeiffer and Bacchi ,1975; Durko et al.,1984; Hoffer,1967; Bregola et al.,1996 and Mock et al.,2002 finally Dakshinamurti and Dakshinamurti , 2015)

Conclusion

Mauve factor pyrrole is a metabolic syndrome due to an abnormality in the synthesis and metabolism of Kryptopyrrole which is concedred as markers of psychiatric disorders. After food intervention with prolonged involved foodstuff items, mauve factor was enhancement and tend to be normal among all case studies within 90 to 684 days.

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العامل البنفسجي للبيرول كعلامة على المتلازمة الأيضية بعد تدخل غذائي طويل الأمد مع العناصر الغذائية ذات الصلة

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الملخص العربى

يعد العامل البنفسجى بيرول متلازمة ايضية ناشئة عن خلل فى طبيعة تخليق وتمثيل الكريبتوبيرول والذى يعد من علامات الاختلالات النفسية.والغرض من هذا البحث استيضاح حدود ومقدار التداخل لدور المواد الغذائية بما تحتوية من المغذيات التى تعمل على تصحيح البيرول.ولهذا الغرض اجرى البحث على اربعون شخصا متطوع وقد قسموا الى اربع فئات كل فئة تضم عشرة اشخاص و كانت هذة الفئات الإكتئاب ثم ثنائى القطب ثم الفصام العقلى واخيرا فرط النشاط المصاحب لفقدان التركيز على التوالى.وبعد التدخل الغذائى لمدة طويلة بمصادر المواد الغذائية التى تمد بالزنك والبيرودوكسال فوسفات واوميجا٣واومجا٦. كانت التوصيات بتناول هذة المصادر الغذائية من ثلاث انصبة فاكثر يوميا والذى ادي لتحسين المتلازمة الايضية العامل البنفسجى بيرول بين مجموعات الدراسة والتى اقتربت من القيم الطبيعية فى مدى زمنى تسعين الى ستمائة واربع وثمانون يوما.

الكلمات البحث: كريبتوبيرول , هيدروكسي هيموبيرولين-٢-١, حمض ايكوسابينتانويك, حمض اراكيدونيك,مواد غذائية , العامل البنفسجى, الاختلالات العقلية,الامراض النفسية , انزيم ديساتيوريز, العناصر الغذائية.