

Re: Mitochondrial oxidative stress

Source: <http://sci.tech-archive.net/Archive/sci.med/2004-06/0310.html>

From: Matti Narkia (mnng_at_despammed.com)

Date: 06/07/04

Date: Tue, 08 Jun 2004 01:52:19 +0300

Mon, 07 Jun 2004 18:11:38 -0400 in article
<40C4E81A.2521FE87@heartmdphd.com> "Dr. Andrew B. Chung, MD/PhD"
<andrew@heartmdphd.com> wrote:

>Matti Narkia wrote:

>

>>>

>>> Yeat another interesting substance is the synthetic antioxidant idebenone –
>>> a coenzyme Q10 analogue. Below some idebenone related Medline references:

>>>

>> [snip]

>>>

>>>22: Gutzmann H, Kuhl KP, Hadler D, Rapp MA.

>>> Safety and efficacy of idebenone versus tacrine in patients with

>>> Alzheimer's disease: results of a randomized, double-blind, parallel-group

>>> multicenter study.

>>> Pharmacopsychiatry. 2002 Jan;35(1):12-8.

>>> PMID: 11819153 [PubMed – indexed for MEDLINE]

>>>

>>><URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11819153>

>>>

>> [snip]

>>>

>>>36: Gutzmann H, Hadler D.

>>> Sustained efficacy and safety of idebenone in the treatment of Alzheimer's

>>> disease: update on a 2-year double-blind multicentre study.

>>> J Neural Transm Suppl. 1998;54:301-10.

>>> PMID: 9850939 [PubMed – indexed for MEDLINE]

>>>

>>><URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9850939>

>>>

>> [snip]

>>>

>>>38: Yamada K, Nitta A, Hasegawa T, Fuji K, Hiramatsu M, Kameyama T,

>>> Furukawa Y, Hayashi K, Nabeshima T.

>>> Orally active NGF synthesis stimulators: potential therapeutic agents in

>>> Alzheimer's disease.

>>> Behav Brain Res. 1997 Feb;83(1-2):117-22. Review.

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>> >PMID: 9062669 [PubMed – indexed for MEDLINE]
>>
><URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9062669>
>> >
>> >39: Weyer G, Babej–Dolle RM, Hadler D, Hofmann S, Herrmann WM.
>> > A controlled study of 2 doses of idebenone in the treatment of Alzheimer's
>> >disease.
>> >Neuropsychobiology. 1997;36(2):73–82.
>> >PMID: 9267856 [PubMed – indexed for MEDLINE]
>>
><URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9267856>
>> >
>> [snip]
>> >
>> >45: Bergamasco B, Scarzella L, La Commare P.
>> > Idebenone, a new drug in the treatment of cognitive impairment in patients
>> >with dementia of the Alzheimer type.
>> >Funct Neurol. 1994 May–Jun;9(3):161–8.
>> >PMID: 7988944 [PubMed – indexed for MEDLINE]
>>
><URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7988944>
>> >
>> All the above studies showed benefit of idebenone in the treatment of
>> Alzheimer's disease. There is, however, also a fairly recent negative
>> result:
>>
>> Thal LJ, Grundman M, Berg J, Ernstrom K, Margolin R, Pfeiffer E, Weiner MF,
>> Zamrini E, Thomas RG.
>> Idebenone treatment fails to slow cognitive decline in Alzheimer's disease.
>> Neurology. 2003 Dec 9;61(11):1498–502.
>> PMID: 14663031 [PubMed – indexed for MEDLINE]
>>
><URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14663031>
>
> "CONCLUSION: Idebenone failed to slow cognitive decline in AD that was of sufficient magnitude to be
clinically
> significant."
>
> Uh–oh.
>
> Perhaps they should have used the native stuff.
>
If with "native stuff" you mean coenzyme Q10, it has not been tested in
controlled clinical trial for the treatment of Alzheimer's studies.
Moreover, the studies

Battino M, Bompadre S, Leone L, Devecchi E, Degiuli A, D'Agostino F, Cambie
G, D'Agostino M, Faggi L, Colturani G, Gorini A, Villa RF.
Coenzyme Q, Vitamin E and Apo–E alleles in Alzheimer Disease.
Biofactors. 2003;18(1–4):277–81.
PMID: 14695944 [PubMed – indexed for MEDLINE]

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<URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=146959>

de Bustos F, Molina JA, Jimenez-Jimenez FJ, Garcia-Redondo A,
Gomez-Escalonilla C, Porta-Etessam J, Berbel A, Zurdo M, Barcenilla B,
Parrilla G, Enriquez-de-Salamanca R, Arenas J.

Serum levels of coenzyme Q10 in patients with Alzheimer's disease.

J Neural Transm. 2000;107(2):233-9.

PMID: 10847562 [PubMed - indexed for MEDLINE]

<URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=108475>

found that serum CoQ10 concentrations were similar in patient and control groups.

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Matti Narkia