tional incontinency in a 34-year-old man and the correlation of the metabolic changes seen with his change in cognitive and emotional state. This type of quantitative analysis can provide that information, unlike a subjective radiological evaluation limited with MRI and CT. A greater understanding of the functional activity of the underlying regions affected by Fahr's syndrome may help to provide insight into specific networks involved.

Burak Yulug
Mustafa Bakar
Department of Neurology, University of Uludag, Bursa, Turkey
Inanc Karapolat
Department of Nuclear Medicine, Sifa Hospital, Izmir, Turkey
Orkide Güzel
Department of Pediatric Neurology, University of Dokuz Eylül, Izmir, Turkey
Wolf Rüdiger Schäbitz
Department of Neurology, University of Münster, Münster, Germany

References

1. Trautner RJ, Cummings JL, Read SL, et al: Idiopathic basal ganglia calcification and organic mood disorder. Am J Psychiatry 1988; 145:350–353
2. Benton AL: Neuropsychological assessment. Ann Rev Psychol 1994; 45:1–23
3. Middleton FA, Strick PL: Basal ganglia and cerebellar loops: motor and cognitive circuits. Brain. Res. Rev 2000; 31:236–250
4. Schmahmann JD, Sherman JC: The cerebellar cognitive-affective syndrome. Brain 1998; 121:561–579
5. Rapoport M, van Reekum R, Mayberg H: The role of the cerebellum in cognition and behavior: a selective review. J Neuropsychiatry Clin Neurosci 2000; 12:193–198
6. Schmahmann JD: Disorders of the cerebellum: ataxia, dysmetria of thought, and the cerebellar cognitive affective syndrome. J Neuropsychiatry Clin Neurosci 2004; 16:367–378

A Novel View on the Pharmacodynamics of Rosiglitazone and Introducing Some Potential Drugs in Ameliorating Alzheimer's Disease

SIR: Alzheimer's disease is a progressive and fatal neurodegenerative disorder manifested by cognitive and memory deterioration, progressive impairment of daily living activities, and a variety of neuropsychiatric symptoms and behavioral disturbances.

Increasing evidence shows that neurotoxicity is mediated by CNS inflammatory processes, which involve activation of the microglia by the amyloid-beta, leading to the release of proinflammatory cytokines, including interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF-alpha). Neurotoxic processes mediated by these cytokines may include direct neuronal death by enhancement of apoptosis, decreased synaptic function, and inhibition of hippocampal neurogenesis.[1]

Rosiglitazone is used in some studies for improving the symptoms of Alzheimer's disease but there is controversy about its mechanism of action.[2]

There is evidence that shows the effect of rosiglitazone in reducing IL-6.[3] Although a study has shown that rosiglitazone cannot reduce IL-6,[4] it seems that this study was not maintained long enough to determine this effect.

In addition, a study showed that poor sleep is associated with higher interleukin-6 in older caregivers of people with Alzheimer's disease.[5]

According to aforementioned studies, we hypothesize that one of the mechanisms of action of rosiglitazone in ameliorating Alzheimer's disease is reducing IL-6. Moreover, it seems that this drug can improve the sleep of people with Alzheimer's disease.

Prescribing other IL-6 reducers as clenbuterol may be a good treatment for Alzheimer's disease. On the other hand, TNF-alpha antagonists, like thalidomide, infliximab, etanercept, and adalimumab, may be effective in Alzheimer's disease.

Surely, clinical trials are needed to validate our hypothesis.

Shahriar Gharibzadeh, M.D., Ph.D.
Sayed Shahabuddin Hoseini, M.D.
Neuromuscular Systems Laboratory, Department of Biomedical Engineering, Amirkabir University of Technology, Tehran, Iran

References

1. Rosenberg PB: Clinical aspects of inflammation in Alzheimer's disease. Int Rev Psychiatry 2005; 17:503–514
2. Watson GS, Cholerton BA, Reger MA, et al: Preserved cognition in patients with early Alzheimer disease and amnestic mild cognitive impairment during treatment with rosiglitazone: a preliminary study. Am J Geriatr Psychiatry 2005; 13:950–958
3. Esposito K, Ciotola M, Carleo D, et al: Effect of rosiglitazone on endothelial function and inflammatory markers in patients with the metabolic syndrome. Diabetes Care 2006; 29:1071–106
4. Hetzel J, Balletshofer B, Rittig K, et al: Rapid effects of rosiglitazone treatment on endothelial function and inflammatory biomarkers. Arterioscler Thromb Vasc Biol 2005; 25:1804–1809
5. von Kanel R, Dimsdale JE, Ancoli-Israel S, et al: Poor sleep is associated with higher plasma proinflammatory cytokine interleukin-6 and procoagulant marker fibrin D-dimer in older caregivers of people with Alzheimer's disease. J Am Geriatr Soc 2006; 54:431–437

Impaired Knowledge for Fruits and Vegetables in Semantic Dementia

SIR: Semantic dementia is a unique frontotemporal lobar degeneration characterized by the loss of meaning or knowledge for words and