What Does This Mean?

1. Definitions (from dictionary.com):
   a. apoptopic: normal, genetically regulated process leading to the death of cells and triggered by the presence or absence of certain stimuli, as DNA damage.

2. Synopsis:
   a. “This article summarizes evidence that Nrf2 acts as a bridging link in various inflammatory and apoptotic pathways impacting progression of diabetic neuropathy.”
   b. “…downregulation of Nrf2 causes various microvascular changes, which result in diabetic neuropathy.”
   c. “…targeting Nrf2 activators as a therapeutic potential will provide important new insights into the ways that influence treatment of diabetic neuropathy.”

See the actual abstract on the next page.

Nrf2: a potential therapeutic target for diabetic neuropathy.

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Abstract
Different aspects involved in pathophysiology of diabetic neuropathy are related to inflammatory and apoptotic pathways. This article summarizes evidence that Nrf2 acts as a bridging link in various inflammatory and apoptotic pathways impacting progression of diabetic neuropathy. Nrf2 is involved in expression of various antioxidant proteins (such as detoxifying enzymes) via antioxidant response element (ARE) binding site. Under normal conditions, Nrf2 is inactive and remains in the cytosol. Hyperglycemia is a strong stimulus for oxidative stress and inflammation that downregulates the activity of Nrf2 through various neuroinflammatory pathways. Acute hyperglycemia increases the expression of Nrf2, but persistent hyperglycemia decreases its expression. This downregulation of Nrf2 causes various microvascular changes, which result in diabetic neuropathy. The key contribution of Nrf2 in progression of diabetic neuropathy has been summarized in the article. Despite involvement of Nrf2 in progression of diabetic neuropathy, targeting Nrf2 activators as a therapeutic potential will provide important new insights into the ways that influence treatment of diabetic neuropathy.

KEYWORDS: Cytokines; Diabetic neuropathy; Inflammatory pathways; Nrf2; Nrf2 activators

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