Diabetes-associated nitration of tyrosine and inactivation of succinyl-CoA:3-oxoacid CoA-transferase.

Title: Diabetes-associated nitration of tyrosine and inactivation of succinyl-CoA:3-oxoacid CoA-transferase.

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Abstract: High levels of reactive species of nitrogen and oxygen in diabetes may cause modifications of proteins. Recently, an increased expression of tyrosine nitration has been observed in the diabetic heart. In this study, we show that diabetes-associated nitration of tyrosine can lead to the inactivation of succinyl-CoA:3-oxoacid CoA-transferase (SCOT). This enzyme is the key regulatory enzyme of the citric acid cycle and its inactivation is associated with a reduction in the energy utilization, we suggest that SCOT tyrosine nitration is a contributing factor to this impairment in the diabetic heart.


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