

## 1-23. Effects of Silkworm extract on Streptozotocin-induced Diabetic Rats

한상미, 석영식<sup>1)</sup>, 백하주<sup>1)</sup>, 박현로<sup>1)</sup>, 한명세<sup>1)</sup>  
농업과학기술원 잠사이용과, <sup>1)</sup>경북대학교 천연섬유학과

This study was undertaken to find effects of ethanol extracts from *Bombyx mori* on the hyperglycemia induced by streptozotocin in rats. Blood glucose level of rats increased depending on experimental days after streptozotocin treatment. But there was no difference in blood glucose level between the rats injected with ethanol extracts of *B. mori* normal rats. There was no significant difference in the kidney fibrosis between the rats injected with ethanol extracts of *B. mori* normal rats at all ages examined. The transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1) protein was detected in the glomerular endothelial cells and tubular epithelial cells of streptozotocin rats at 14 days of age. In the rats injected with ethanol extracts of *B. mori* to the kidneys, the TGF- $\beta$ 1 protein was detected very faintly. The TGF- $\beta$ 1 mRNA of streptozotocin rats increased at 14 days of age, and this was higher than the rats injected with ethanol extracts of *B. mori*. Taken there to go the results suggest that the ethanol extracts of *B. mori* ameliorate hyperglycemia of the rats induced by streptozotocin.