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**Effect of dietary *Platycodon grandiflorum* on plasma glucose and lipid metabolism in KK-A<sup>y</sup> mice and streptozotocin-induced diabetic rats**Kyoung-Sook Kim<sup>1</sup>, Tae-Kyun Lee<sup>2</sup>, Cheorl-Ho Kim<sup>3</sup> and Young-Choon Lee<sup>1</sup>

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This study was designed to investigate the effect of dietary *Platycodon grandiflorum* on plasma glucose and lipid metabolism in KK-A<sup>y</sup> mice and streptozotocin (STZ)-induced diabetic rats. Both plasma triglyceride and plasma cholesterol levels in streptozotocin (STZ)-induced diabetic rats were significantly decreased by dietary *Platycodon grandiflorum* feeding for 4 weeks compared to those of control rats, but there were no marked differences in KK-A<sup>y</sup> mice. However, for plasma glucose values, *Platycodon grandiflorum* feeding resulted in a significant decrease in both streptozotocin (STZ)-induced diabetic rats and KK-A<sup>y</sup> mice. Also, dietary *Platycodon grandiflorum* slightly decreased the postprandial glucose level at 30 and 60 mins during oral glucose tolerance test in KK-A<sup>y</sup> mice. Although there was no statistical significance, the fasting plasma insulin levels of *Platycodon grandiflorum* dieted KK-A<sup>y</sup> mice tended to decrease when compared to that of control mice. Therefore, the present results suggested that dietary *Platycodon grandiflorum* may have a beneficial effect on preventing hypercholesterolemia and hyperlipidemia.