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## Effect of Coix Lacrima Jobi l extract on the mice with diabetes mellitus blood glucose *in vivo*

Nanny Djaja

Atma Jaya Catholic University of Indonesia

**Background:** Type 2 diabetes mellitus (DM) is a chronic disease marked by the elevation of blood glucose. There are many factors that can cause type 2 DM, such as genetics, poor dietary habits, life style, and many more. Choices of the correct food ingredients can help control blood glucose in patients with type 2 DM. Coix Lacrima Jobi L is a tropical grain that belongs to the Poaceae family or flowering plants (grass). In a study of twelve antidiabetic plants, barley has been demonstrated to have the antidiabetic effects that can reduce blood glucose in patients with type 2 DM.

**Purpose:** Determine the effect of barley extract on the mice's blood glucose with diabetes mellitus.

**Methods:** An experimental study has been conducted in five groups of ten male mice and each has been administrated with 10 mg of Polysaccharide Coix Lacrima Jobi L extract (PC) and 50 mg/kg in aquadest daily for 30 days. The groups are (1) negative control (without aloxan and aquadest), (2) positive control (with injections of aloxan and aquadest), (3) glabenclamide (GC)-50 standard (with injections of aloxan and GC 50 mg/kg), (4) PC-10 mg with injections of aloxan, and (5) PC-50 with injections of aloxan. From each animal, serum blood glucose was recorded and analyzed before the experiment started as the baseline, on the 15th, and 30th days, these mice are then sacrificed by euthanasia on the 30th day. The results demonstrated that has the effect of reducing mice's serum blood glucose in 30 days and it shows the efficacy of PC as an antidiabetic agent.

**Results:** The use polysaccharide Coix Lacrima Jobi L extract (PC) of reduce blood glucose.

**Conclusion:** The use of polysaccharide Coix Lacrima Jobi L extract as a natural antidiabetic agent.

nanny.djaja@yahoo.com