

Research Article

Evaluation of Antioxidant and Antidiabetic Activity of *Pleurotus djamor* Cultivated in North Bengal

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Abstract

Pleurotus djamor is one of the most popular edible oyster mushrooms in North Bengal with good taste, texture and very high nutritious and therapeutic value. It is commonly being cultivated using different substrates like paddy straw during the winter season. Antioxidant activity when assessed, *P. djamor* showed a high range of DPPH scavenging activity. GC-MS analysis also indicated that the presence of different bioactive compounds essential for human health. Antidiabetic activity of *P. djamor* was also evaluated using Streptozotocin induced white albino rats and it was observed that the treatment with oyster mushroom powder significantly helps in lowering the blood sugar level. Blood creatinine and urea were also assessed and it was observed that treatment of mushroom powder significantly reduced these in comparison to the positive and negative control which reduces the chances of liver and kidney diseases. Thus it is clear that *P. Djamor* mushroom shows both antioxidant and antidiabetic activity which may thus be considered to be useful in improving human health.

Key words: Antidiabetic activity, antioxidant, GC-MS, *Pleurotus djamor*

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