1. Int J Mol Med. 2005 Mar;15(3):401-6.

Protective effects of a water-soluble extract from cultured medium of Ganoderma lucidum (Rei-shi) mycelia and Agaricus blazei murill against X-irradiation in B6C3F1 mice: Increased small intestinal crypt survival and prolongation of average time to animal death.

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Abstract

Radioprotective effects of a water-soluble extracts from cultured medium of Ganoderma lucidum (Rei-shi) mycelia (designed as MAK) and Agaricus blazei (Agaricus) against the shortening of survival time or the injury of crypt by X-irradiation were investigated in male B6C3F1 mice. MAK and Agaricus at three different doses were mixed into basal diet into biscuits at 5, 2.5 and 1.25% and administered from 1 week before irradiation. MAK (5% group) significantly prolonged animal survival as compared with basal diet group (control group) after 7 Gy of X-ray irradiation at a dose rate of 2 Gy min(-1). At doses of 8, 10 and 12 Gy X-irradiation at a dose rate of 4 Gy min(-1) MAK (5% group) significantly increased crypt survival as compared to other groups. These results suggest that MAK can act as a radioprotective agent.

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Ganoderma lucidum (Rei-shi) mycelia とAgaricus blazei murill の培地由来の水溶性抽出物のB6C3F1 マウスにおけるエックス線照射の防御効果：小腸細窩の増加と動物の死亡までの平均時間の延長

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Abstract

Ganoderma lucidum (Rei-shi) mycelia (MAK) とAgaricus blazei murill (Agaricus)の培地由来の水溶性抽出物のエックス線による生存時間の短縮と小腸細窩傷害に対する放射線防御作用を雄の B6C3F1 マウスを用いて調べた。3 濃度（5%、2.5%、1.25%）の MAK とAgaricus をそれぞれ混ぜた餌をエックス線照射の 1 週間前から与えた。MAK（5%混餌群）は通常の餌を与えた群（コントロール）と比較して、7Gy のエックス線の照射後の生存が有意に延長した。8、10、12Gy のエックス線照射では、MAK（5%混餌群）の小腸細窩の生存が、他の群よりも有意に増加した。これらの結果から、MAK は放射線防御物質として機能すると考えられた。

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