

Shrestha DK, Sapkota H, Baidya P, Basnet S. Antioxidant and antibacterial activities of *Allium sativum* and *Allium cepa*. *Bull. Pharm. Res.* 2016;6(2):50-5.

Abstract: Garlic and onion have been used widely as common household spices from the ancient period and have also been regarded as traditional healers. This study was designed to evaluate the antioxidant and antibacterial activities of fresh extracts of garlic and onion. Activities of enzymatic antioxidants (superoxide dismutase and catalase) and non-enzymatic antioxidant (ascorbic acid content) activities were measured and compared in between garlic and onion extracts. Superoxide dismutase and catalase activities in garlic were found noticeably high ($p < 0.05$) compared to onion but significantly reverse in case of the ascorbic acid content ($p < 0.05$). Likewise, six bacteria were chosen to study antibacterial activities of garlic and onion. The zones of inhibitions exhibited by the extracts against *B. cereus*, *S. aureus*, *Micrococcus* sp., *E. coli*, *Klebsiella* sp. and *Proteus* sp. were compared with the reference antibiotic chloramphenicol (1%). Antibacterial activity of the garlic extract singly and its mixture with onion extract in the ratio 1:1 against the tested bacteria were found significantly higher ($p < 0.05$) than the onion extract.

Key words: Garlic, Onion, Antibacterial activity, Antioxidant activity, *Allium cepa*.

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*Author to whom correspondence should be addressed:

Mr. Deepak Kumar Shrestha (shresdeepak@gmail.com)

Lecturer, Department of Pharmacy, School of Medical Sciences

Banasthali, Kathmandu, Nepal

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