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ANTINOCICEPTIVE EFFECT OF *SAMBUCUS NIGRA* L. (CAPRIFOLIACEAE) POLYPHENOLS EXTRACTS IN MOUSE RITHING TEST

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Sambucus nigra L. (SN) is a traditional medicinal plant, widely used by the Bulgarian population to treat many diseases. The current study aimed to evaluate the acute toxicity and possible antinociceptive activity of SN extracts. The biological tests were performed on aqueous extracts from flowers (SNFE) and berries (SNBE) of SN. Both extracts were subjected to phytochemical screening and HPLC quantification of polyphenols. The acute oral (p.o.) and intraperitoneal (i.p.) toxicity was determined according to the OECD 425. The *in vivo* analgesic effect was estimated using acetic acid that induces algesia in mice (writhing tests). Forty male albino Wistar rats weighing 20 g were used for the study. The animals were randomly divided into following groups: negative control, extracts treated (10, 20, 50 mg/kg b.w.) and diclofenac (10 mg/kg b.w.) as a standard reference. The results showed that SNFE and SNBE are non-toxic up to a dose of 3000 mg/kg b.w. and a dose of 5000 mg/kg b.w. respectively. The test of analgesic activity demonstrated that both extracts at a dose of 50 mg/kg b.w. inhibited the abdominal contractions induced by administration of acetic acid, significantly compared to the positive control ($p < 0.05$). This study suggests that *Sambucus nigra* possesses antinociceptive activity and also provide the pharmacological basis for its uses in traditional medicine for these purposes.