

Latrodectus Bites in Northern Dalmatia, Croatia: Clinical, Laboratory, Epidemiological, and Therapeutical Aspects

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Aim. To analyze clinical and epidemiological characteristics of the black widow spider (*Latrodectus tredecimguttatus*) bites and assess the impact of antitoxin administration after the bite on the intensity and duration of pain.

Method. Retrospective analysis of clinical appearance, laboratory findings, and clinical assessment of the antitoxin administration efficacy in 32 patients with latrodectism treated at Zadar General Hospital between 1992 and 2002.

Results. All patients presented with generalized pain, profound perspiration, and burning in the sole of the foot. Laboratory findings revealed moderately increased serum glucose concentrations in half of the patients, concentrations of aspartate aminotransferase and alanine aminotransferase 2 to 3 times higher than normal in 8 of 32 patients, moderate leukocytosis in 16 of 32 patients, mature neutrophilia in 15 of 32 patients, and immature forms of leukocytes in 4 of 32 patients. In 21 patients who received the antitoxin, severe pain lasted 1-4 h (median, 1.2 h) after the antitoxin administration, moderate pain 1-5 h (median, 2.4 h), and hospitalization 1-5 days (median, 4 days). In patients who did not receive antitoxin, there was a statistically significant increase in duration of severe pain (median, 50 h; range, 24-72 h), moderate pain (median, 36 h; range, 24-48 h), and hospitalization (median, 6 days; range, 4-12 days) ($p < 0.05$ for all, Kruskal-Wallis H test). Men were more often bitten by the venomous spider (20 men vs 12 women); adults more often than children (30 vs 2, respectively), domestic population more often than tourists (30 vs 2, respectively), and rural mainland inhabitants more often than islanders (21 vs 11, respectively). All biting incidents occurred between June and September, most often in July (17 patients).

Conclusion. Latrodectism in Northern Dalmatia presents with severe clinical symptoms. Administration of the antitoxin is advisable in the treatment of all afflicted patients.

Key words: antitoxins; black widow spider; pain; toxins