

ABSTRACT

Background: Leprosy reaction is an acute episode in leprosy characterized by acute inflammation sometimes accompanied with systemic symptoms. Leprosy type 1 reaction often occurs in borderline leprosy patients. Leprosy type 1 reaction can cause peripheral nerve damage through neuritis that can lead to disability. Interferon- γ induced protein 10 (IP10) is a chemokine with chemotaxis function to various immune cells such as macrophage, dendritic cells, Natural Killer cells, and activated T lymphocytes. Several studies have found an increase of IP10 serum level when type 1 reaction occurred.

Purpose: To evaluate the profile of IP10 serum levels in borderline patients with and without type 1 leprosy reaction.

Method: This is a descriptive cross-sectional study, with 34 borderline leprosy patients of which 17 had leprosy type 1 reaction and 17 without reaction that qualify inclusion and exclusion criteria.

Results: Mean serum IP10 levels in leprosy type 1 reaction groups are $594,123 \pm 327,628$ pg/mL and $331,648 \pm 101,819$ pg/mL in groups without reaction.

Conclusions: Serum IP10 levels in borderline leprosy patient is higher than patients without reaction, although confounding factors in borderline leprosy patients with type 1 reaction that can influence serum IP10 levels cannot be eliminated. Need further studies to reveal the role of IP10 in type 1 leprosy reaction.

Keywords: Borderline leprosy, Type 1 reaction, IP10