



DERMATOLOGICAL SURGERY

# CLASSIFICATION OF FOREIGN BODY REACTIONS DUE TO INDUSTRIAL SILICONE INJECTION

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**Background:** Foreign-body reaction is a typical tissue response to a biomaterial that has been injected or implanted in human body tissue. There has been a lack of data on the classification of foreign body reaction to silicone injection, which can describe the pattern of body tissue responses to silicone.

**Objective:** We modified the classification proposed by Duranti et al, which has categorized a foreign-body reaction to hyaluronic acid injection into a new classification of a foreign-body reaction due to silicone injection.

**Materials and method:** A cohort study of 31 women suffering from silicone-induced granulomas on their chin was conducted. Granulomatous tissue and submental skin were stained with hematoxylin-eosin and evaluated.

**Results:** Our data revealed that there were at least seven categories of foreign body reactions to silicone injection could be developed. Categories 1-4 showed inflammatory activity, and categories 5-8 showed tissue repair by fibrosis.

**Conclusion:** With histopathological staining, we're able to sequence the steps of body reactions to silicone injection. Initial inflammatory reaction is then replaced by fibrosis process repairing the damaged tissues. The process depends on the host immune tolerance.

**Level of Evidence:** V, descriptive study

**Keywords:** Foreign-body reaction, Silicone, Granuloma

