Background. Diabetes mellitus is a chronic disorder characterized by hyperglycemia. Chronic hyperglycemia can cause damage to various organs including the heart, eyes, kidneys, nerves, and complications in the whole body, like macrovascular and microvascular complication. Diabetes mellitus can cause complication in oral cavity such as xerostomia and hyposalivation. Xerostomia is dry sensation in oral cavity, it is usually followed by decreased salivary flow rate. Xerostomia followed by hyposalivation can interfere the function of eating, swallowing, and speaking in patient, clinically periodontitis, gingivitis, and oral candidosis are occured. These condition can reduce the quality of life of patients with diabetes mellitus. A1c test results are single examination without requiring fasting which are highly accurate examination to assess the glycemic status for 2-3 months Purpose. The aim of this study was analyze the relationship between salivary flow rate in patients with diabetes mellitus with A1c level at Haji Hospital Surabaya Method. Observational analytic study with cross sectional total sampling method on 52 patients who fulfilled the criteria. Result. Spearman's test showed relationship between salivary secretion rate and A1c level with 0,000 p value of <0.01 (significant relationship). Conclusion. This research concludes that there are significant relationship between decreasing salivary flow rate and A1c level in patients with diabetes mellitus at Haji Hospital Surabaya. The higher A1c level, so the salivary flow rate will be decreasing in patients with diabetes mellitus.

Keywords: diabetes mellitus, salivary flow rate, A1c