

ABSTRACT

Fadya Rahmanda, 24020121140129. Overview of Histological Preparations of *Rattus norvegicus* Cardiomyocytes through the Washing Stage after being Fixation with 10% NBF, Bouin, and 50% Ethanol for One Week. Under the guidance of Silvana Tana and Muhammad Anwar Djaelani.

Making animal tissue preparations requires a series of stages, one of which is fixation to prevent autolysis. This study used three types of fixatives, namely 10% NBF, bouin, and 50% ethanol. Preparation was made using *R. norvegicus* cast organs that were fixed for one week. The washing process was carried out after the fixation process to minimize the residual fixative on the tissue. The purpose of this study was to analyze the picture of cardiomyocyte preparations that went through the washing process after being fixed using 10% NBF, bouin, and 50% ethanol for one week. The treatment groups tested in this study were P1 (10% NBF), P2 (bouin), P3 (50% ethanol). The results of one-way ANOVA test showed that the results were significantly different ($P < 0.05$) on cardiomyocyte size and cardiomyocyte cell nucleus size. There was insignificant damage to cardiomyocyte integrity, cardiomyocyte cell shape, cardiomyocyte cell nucleus shape, cardiomyocyte cell color, and cardiomyocyte cell nucleus color. In conclusion, the picture of *R. norvegicus* cardiomyocyte histology preparations fixed with 10% NBF for one week through the washing process produces an optimal preparation picture without significant preparation damage. The picture of *R. norvegicus* cardiomyocyte histology preparations fixed with bouin and 50% ethanol for one week through the washing process produces a picture of preparations with significant damage

Key words: *Fixative, Cardiomyocytes, Histology*