

**THE APPLICATION OF POMEGRANATE EXTRACT (*Punica granatum*  
*Linn*) TO SGOT, SGPT AND BILIRUBIN SERUMS LEVEL ON  
WHITE RATS (*Rattus norvegicus*) AS ANIMAL MODEL  
OF LIVER FIBROSIS**

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**ABSTRACT**

The objective of this research to know the application of pomegranate extract to decrease SGOT, SGPT, direct bilirubin, indirect bilirubin and total bilirubin serums level on white rats (*Rattus norvegicus*) as animal model of liver fibrosis. Twenty seven male rats 2,5 months old and weight 150-200 gram were divided into three group, and eighteen white rats have been ready as animal model of liver fibrosis. P0 group as negative control has done laparotomy, P1 group as positive control has done bile duct ligation with applied sodium CMC Na 0,3% and P2 group has done bile duct ligation with applied pomegranate extract and sodium CMC Na 0,3%. All research were conducted at observation for up to 21 days and the rat's blood were taken by using intra cardiac method. The results of statistical analysis on SGOT and SGPT level show that P1 was significantly different with P0 and P2, while P2 was not significantly different with P0, for direct bilirubin, indirect bilirubin and total bilirubin serums level show that P1 was significantly different with P0 and P2. P2 give lower results than P1, but the results was still significantly different with P0. According to this research, pomegranate extract give significant result to decrease SGOT, SGPT, direct bilirubin, indirect bilirubin and total bilirubin serums level.

*Key words : SGOT, SGPT, bilirubin serums, pomegranate extract*