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Histological Biocompatibility Of Anodized Titanium And Titanium Alloy In Abdominal Connective Tissue Of Female Mice

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In the present study, anodized titanium and titanium alloy specimens were used to evaluate the histological biocompatibility response in the connective tissue of the abdominal region. The titanium and titanium alloy specimens were anodized at 260, 280 and 310 voltage, and control was untreated. Porous structures were observed on the specimen surface. Pore size and roughness of the surface was increased with high voltage. Anodized titanium and titanium alloy specimens were implanted in abdominal connective tissue of female mice. Biocompatibility was evaluated in connective tissue of sacrificed mice after 4 weeks. Newly formed connective tissue(capsule) after implant was mainly constituted by fibroblast and fibrocyte. Also, connective tissue was consisted of several inflammatory cells, multinuclear giant cells and some newly formed blood vessels. Capsule thickness 녁rounding the specimen was much thinner than that of untreated specimen. The most thin thickness was observed in the connective tissue of 310V titanium specimen. Therefore, the improved biocompatibility was appeared at 310V titanium. Our observations suggest that anodized titanium specimens are more effective for the improvement of biocompatibility *in vivo*.

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MORPHOLOGIC CHANGES IN LIVER AND KIDNEY OF MALE MOUSE BY ESTROGEN RECEPTOR AGONIST

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In this study, we investigated effects of estrogen receptor agonist, PPT(4,4′,4″-(4-Propyl-[1*H*]-pyrazole-1,3,5-triyl)*tris*phenol) on liver and kidney in male mice. PPT was subcutaneously given to adult male mice at a weekly dosage of 4mg/animal in a volume 0.08 ml of vehicle for 3, 5 and 8 weeks. PPT induced decreases of body and kidney weights with experimental time. Whereas, liver weight was dramatically increased compared with controls. The PPT treatment induced a highly significant increase in the sinusoidal diameter of liver. Also, the nucleus of a hepatocytes was enlarged. PPT treatment conducted dilation in the proximal tubules diameter of kidney. Epithelial cell height in the proximal tubule was decreased by PPT. These results suggest that microstructure of liver and kidney was changed by treatment of estrogen receptor agonist PPT in the mice resulting in functional alterations of the organs.