3 - Clinical Anatomy

OC-060 - (23901) - THE EFFECT OF MEDICINAL DIET "XU DUAN RAN TONG WINE" ON THE FORMATION OF OSSEOINTEGRATION

Z. Zhang (China)[1]; M. Yang (China)[1]; H. Xu (China)[1]; W. Tang (China)[1]; S. Yu (China)[1]

1 - Dalian Medical University

Zhijun Zhang
Dalian

Muzi Yang
Dalian

Hong Xu
Dalian

Wei Tang
Dalian

Shengbo Yu
Dalian

The authors state that there are no conficts of interests.

This experiment investigates the effect of traditional Chinese medicinal diet "Xu duan ran tong wine" on osteointegration formation, providing an experimental basis for home-based rehabilitation strategies in patients after joint replacement surgery.

Twelve adult male rabbits underwent tantalum rod implantation in the lateral condyle of the left femur. They were randomly divided into three groups. Intragastric administration began one week after surgery and lasted for one month.Experimental group received Xu duan ran tong wine;positive control group received the clinically used traditional Chinese medicine decoction Zhu yu sheng gu decoction;blank control group received an equivalent volume of normal saline.All groups were administered for one month.After administration, Micro-CT 3D reconstruction was performed to visualize the tantalum rods and surrounding bone tissue. ELISA was used to measure serum levels of BALP and CTX-I. Hard tissue sections were stained to calculate new bone formation rate and bone-implant contact rate.

Compared with blank control group, experimental group showed:denser newly formed bone surrounding the tantalum rods in 3D reconstruction;significantly increased new bone formation rate and bone-implant contact rate;significantly elevated serum levels of BALP and CTX-I.Compared with positive control group, experimental group exhibited:comparable

newly formed bone surrounding the tantalum rods in 3D reconstruction;no significant difference in new bone formation rate, bone-implant contact rate, or serum levels of BALP and CTX-I.

Traditional Chinese medicinal diet "Xu duan ran tong wine" can facilitate the osteointegration of tantalum implants with bone. This study provides a traditional Chinese medicinal diet approach for the home-based rehabilitation of patients after joint replacement surgery.

Palavras-chave : Traditional Chinese medicinal diet, Osseointegration, Animal experiments