

cholesterol in liver, hazelnut and walnut was measured according to the methods of Liebermann-Burchard method and Alcyon 300i (abbott) apparatus. We used Thin Layer Chromatography (TLC) to determine the existence of cholesterol in the extracts. Then, separated suspensions of liver, hazelnut and walnut were prepared and used in culture media for mycoplasmas. The cultures were incubated for 48 hours. We had subcultures on PPLO Agar to have colonies. Results of this study showed that the Mycoplasmas had the most proliferation in media with hazelnut, and media with liver and walnut supported less proliferation. But the diameters of colonies in this media were bigger than HS. Finally, a better growth of microorganism can be achieved by creating a balance of the rate of supplement and extracted cholesterol from different sources for Mycoplasma cultures.

Keywords: cholesterol, hazelnut, liver, walnut, Mycoplasma

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Tyrosine phosphorylation pattern in sperm proteins isolated from normozoospermic and infertile teratozoospermic men

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In mammalian system, spermatozoa are not able to fertilize the oocyte immediately upon ejaculation, thus they undergo a series of biochemical and molecular changes which is termed capacitation. During sperm capacitation, signal transduction pathways are activated which lead to protein tyrosine phosphorylation. In this study, we have characterized tyrosine phosphorylation pattern in sperm proteins isolated from normozoospermic and infertile teratozoospermic men referred to Avicenna Infertility Clinic in Tehran. Semen samples were collected and spermatozoa were isolated using percoll gradient centrifugation. Spermatozoa were then incubated up to 6 h at 37°C in 3% Bovine Serum Albumin- supplemented Ham's F10 for capacitation following a standard protocol. Before and after capacitation, total proteins from spermatozoa were extracted and subjected to SDS-PAGE. To evaluate protein tyrosine phosphorylation pattern, western blotting with specific antibody against phosphorylated tyrosines was performed. The results from western blotting showed that: 1) different sets of proteins in normozoospermic and teratozoospermic groups were detected 2) the phosphorylation pattern between the normozoospermic and teratozoospermic groups were different 3) the intensity of protein phosphorylation appears to have increased during capacitation in the normozoospermic group relative to teratozoospermic group. These results suggest that the differences in types of proteins and diminished tyrosine phosphorylation efficiency of sperm from teratozoospermic men may be responsible for compromised capacitation and low fertilization success in this group.

Keywords: tyrosine phosphorylation, capacitation, normozoospermic men, teratozoospermic men

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The effects of body acupuncture on lipid profile in Iranian obese and overweight subjects

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Body acupuncture has been reported to reduce levels of the serum total cholesterol, triglyceride, HDL-C and LDL-C in subjects in clinical practice. In the present study we have evaluated the effects of body acupuncture on several biochemical parameters, including levels of the serum total cholesterol, triglyceride, HDL-C and LDL-C in subjects of both genders, divided into 2 groups as follows. Case group (n=90, female=67, male=23) subjects with low-calorie diet and body acupuncture. Subjects were recruited from Nutrition Clinic, Ghaem hospital, Mashhad, Iran. The acupoints on their bodies included: Tianshu(St25), Zusanli(St36), Fenglong(St40), Naiguan(P6), Sanyinjiao(SP6). Control group (n=92, Female=68, Male=24) subjects with low-calorie diet and unreal body acupuncture. The acupoints on their bodies were not real and the needles were just reaching the surface of their skins. Both groups received 3 treatment sessions per week each 20-30 minutes for 6 weeks. Some of biochemical parameters, including TG, TC, HDL-C, LDL-C, were measured twice in all subjects, first at the beginning and second 6 weeks after the treatment. We observed the same significant reduction in LDL-C (p<0.05), total cholesterol (p<0.05), triglycerides (p<0.05), and increased HDL-C (p<0.05) in both the case and control groups. The difference of lipid profile between groups was not statistically significant. It appears that needling, NOT body acupuncture has beneficial effects on lipid profile in obese and overweight subjects.

Keywords: body acupuncture, total cholesterol, triglyceride, HDL-C, LDL-C, obesity, overweight, lipid profile

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Effects of Simvastatin therapy on prooxidant-antioxidant balance in dyslipidemic subjects

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Simvastatin is an effective statin modulating process involved in atherosclerosis which is used for lipid-lowering therapy. In this study we investigated the effects of simvastatin treatment on prooxidant-antioxidant balance (PAB) in a group of dyslipidemic patients. Eighty patients attending a lipid clinic, and previously not receiving lipid-lowering treatment, were selected and divided into two groups based on randomized, double blind, and placebo controlled & cross-over. One group with low density lipoprotein (LDL)>130mg/dl were treated with simvastatin and another group treated with placebo according to cross over model for 2.5 months. A significant decrease of the PAB value was observed in group that was treated by simvastatin compared to placebo group (p<0.001). This study indicates that the PAB value may be considered as a cardiovascular risk factor and treatment with simvastatin may lead to decrease cholesterol.