

Effect of intra-uterine ischemia-reperfusion injury on rat skin

Asli Feride Kaptanoglu
Near East University, Turkey

Perinatal hypoxia-ischemia is a severe clinical problem which have long term complications and socioeconomic significance. Ischemia-reperfusion injury has been known well in the central nervous system (CNS) whereas liver, kidney, heart tissues have also been shown to be damaged. As well as CNS, skin is vulnerable to acute ischemic injury because of its high lipid content. In recent years, it has become apparent that the oxidation of lipids is a crucial step in the pathogenesis of several disease states in adults and infants. Although there are many studies and concerns related to lipid per oxidation in adult skin, limited studies are done about fetal skin. It is agreed that one of the major and important contributions to skin aging, skin disorders and skin diseases results from reactive oxygen species. Due to the high occurrence of potential biological targets for damage, skin is very susceptible to such reactions. Skin is rich in lipids, proteins and DNA, all of which are extremely sensitive to the oxidation process. Although skin has a well organised network of both chemical and enzymatic antioxidants to protect cells, such mechanisms may be different in the fetal life. Hence, it is not well known how the skin, in intrauterine environment, will be effected if an acute ischemia- reperfusion occurs due to a perinatal stress. The authors studied on the effect of intrauterine ischemia-reperfusion injury on fetal rat skin by determination of lipid per oxidation and lipid per oxidation has been shown to have an important role in intra-uterine ischemia-reperfusion induced fetal skin damage.

Biography

Asli Feride Kaptanoglu, M.D, had her medical degree in Ankara University Faculty of Medicine, Ankara, Turkey and completed her residency in Department Dermatology & Venereology of Ege University Hospital, _zmir, Turkey. She continued her studies while working as a consultant dermatologist in Bayindir Hospital, Ankara - Turkey between 2000-2010. Since 2010, she continues her studies in Near East University, Faculty of Medicine, Nicosia, North Cyprus as the chief of dermatology department.