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**CONFOCAL RAMAN SPECTROSCOPIC ANALYSIS OF THE CHANGES IN TYPE I COLLAGEN RESULTING FROM AMIDE I GLYCATION**

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The process of glycation is a non - enzymatic reaction between sugar and free amino group of proteins, leading to skin aging. In this sense, the present study aimed to analyze the changes resulting from glycation in the dermis by Confocal Raman spectroscopy. The analysis was performed with 30 patients with skin types I and II, divided into 3 groups: 10 healthy young women aged 20-33 years, 10 healthy elderly women and 10 elderly women with diabetes type I and II in the age group of 65-80 years. Raman spectra were collected from 70-130 microns in depth and the data were analyzed. It was observed that the amide I band was centered at 1664 cm<sup>-1</sup> for the young participants and healthy elderly which may be due to the presence of water and change in the direction of the shorter wavelength was observed which is centered around 1662 cm<sup>-1</sup>. Considerable changes were observed for the elderly participants with diabetes and the peak was centered around 1658 cm<sup>-1</sup>. Thus, it is inferred that hyperglycemia in elderly subjects with diabetes mellitus accelerate the formation of advanced glycation end products, which increase the type I collagen degradation in human skin.