

# 7<sup>th</sup> Indo Global Diabetes Summit and Medicare Expo

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## Diagnosis of different stages of non-proliferative diabetic retinopathy

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Diabetic Retinopathy is a common complication of diabetes and the primary cause for visual impairment and blindness in adults is the change in blood vessels of the retina. The symptoms can blur or distort the patient's vision. Retinopathy is often asymptomatic and the patient is unaware of retinopathy until the eyes are routinely examined or until visual impairment is detected. Regular screening is essential in order to detect the early stages of diabetic retinopathy for timely treatment to prevent further damage of vision. The retina is a unique site, where the microvasculature can be directly visualized and monitored repeatedly over time. An important aspect of DR is the micro-vascular changes that cause detectable changes in the appearance of retinal blood vessels. Recent advances in retinal photographic imaging techniques have facilitated the development of computer assisted methods to measure and quantify subtle variations and abnormalities in the retinal microvasculature. The blood vessels in the retina get altered, secretion of exudates, micro aneurysms and hemorrhages occur in the retina. The appearance of these features represent the degree of severity of the disease. Micro aneurysms are focal dilations of retinal capillaries and appear as small round dark red dots. Haemorrhages occur when blood leaks from the damaged retinal vessels. Exudates occur when lipid or fat leaks from abnormal blood vessel or aneurysms. The different stages of non-proliferative diabetic retinopathy were detected using the features like exudates, blood vessels, micro aneurysms and haemorrhages. An early detection and diagnosis will assist in timely treatment and a reduction in the percentage of visual impairment due to these conditions, it will assist for a better treatment plan and to improve the vision related quality of life.

### Biography

K Saraswathi is working as an Assistant Professor at Nehru Memorial College, which is in Trichy District in Tamilnadu. She has completed her BSc and MSc degree in the same College. She received her MPhil and MCA from Periyar University, Tamilnadu. She is currently pursuing her Doctorate degree at Bharathiyar University under the guidance of Dr. V Ganesh Babu, who is working as an Assistant Professor at Government College for Women in Karnataka, India.

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