

Importance of Developing a Decision Support System for Diagnosis of Glaucoma

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Abstract : Glaucoma is a condition of irreversible blindness, early diagnosis and appropriate interventions to make the patients able to see longer time. In this study, it addressed that the importance of developing a decision support system for glaucoma diagnosis. Glaucoma occurs when pressure happens around the eyes it causes some damage to the optic nerves and deterioration of vision. There are different levels ranging blindness of glaucoma disease. The diagnosis at an early stage allows a chance for therapies that slows the progression of the disease. In recent years, imaging technology from Heidelberg Retinal Tomography (HRT), Stereoscopic Disc Photo (SDP) and Optical Coherence Tomography (OCT) have been used for the diagnosis of glaucoma. This better accuracy and faster imaging techniques in response technique of OCT have become the most common method used by experts. Although OCT images or HRT precision and quickness, especially in the early stages, there are still difficulties and mistakes are occurred in diagnosis of glaucoma. It is difficult to obtain objective results on diagnosis and placement process of the doctor's. It seems very important to develop an objective decision support system for diagnosis and level the glaucoma disease for patients. By using OCT images and pattern recognition systems, it is possible to develop a support system for doctors to make their decisions on glaucoma. Thus, in this recent study, we develop an evaluation and support system to the usage of doctors. Pattern recognition system based computer software would help the doctors to make an objective evaluation for their patients. It is intended that after development and evaluation processes of the software, the system is planning to be serve for the usage of doctors in different hospitals.

Keywords : decision support system, glaucoma, image processing, pattern recognition

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