

OptiLens AI: Empowering Patients with Advanced Cataract Diagnosis and Personalized Eye Care

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Globally, cataract is among the major causes of blindness. Previously, ophthalmologists used objective lens examination and visual acuity tests, to diagnose cataracts. In general, this method of manual diagnosis has drawbacks in terms of accuracy, inter and intra-observer consistency, and most importantly, consistency across cases. Currently AI and ML are used to evaluate digital eye images for cataract classification and staging with greater objectivity. This study examined 18 prior studies on how the use of AI in diagnosing cataract outperforms physicians even without the assistance of the former, which could contribute to the improvement of decision-making services and global patients' accessibility to quality eye care. The prominent obstacles to the establishment of the technology include data privacy, monitoring, and acceptability among physicians. However, AI has great potential to help improve precision in medicine and individualized treatment of patients with cataracts.

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