

Dear Friends,

Artificial Intelligence (AI) has become an integral part of learning nowadays. The concept of AI is an exciting domain in Ophthalmology due to its image-based and data-rich specialty. AI has great potential to transform healthcare by improving the roadmap to diagnosis and enhancing the productivity of clinicians, also empowering existing staff to serve more patients, thus improving services to patients.



The diagnosis and therapeutic monitoring can be utilized in AI-based models for certain diseases in ophthalmology. The diagnosis of certain diseases can be perfectly identified for Diabetic Retinopathy, Age-related macular degeneration and Glaucoma by identifying the fundus images. In contrast, slit lamp-based diagnosis can be incorporated for cataract, pterygium and corneal diseases, whereas therapeutic monitoring can be done for diseases like corneal ulcers.

Deep learning-based algorithms are designed for the machine by the clinicians by identifying specific characteristics and features of the disease that is fed in the machine. The machine sends the output based on these identifiers that the human experts verify. The utility is widespread and can help the spread of knowledge to far and wide places.

But the challenges are also important accompaniment due to machine-dependent algorithms. The image resolution, the wide variety of images received in medical sciences for same disease entity, interobserver variation, technological challenges, critical decision-making and potential medico-legal implications, establishing standardized reporting format and consensus criteria for diagnosis/referral/triage etc.

Happy to bring another issue of UPJO for your reading and knowledge enhancement.
Happy reading

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