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Acer, Taiwan University Hospital develop ophthalmic AI based diagnostic software

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A new milestone in Taiwan's smart healthcare



In order to increase the rate of fundus examinations for diabetic patients, the team of Professor Zhuang Limin from the Department of Internal Medicine of National Taiwan University Hospital (NTUH) and Dr. Xie Yiting from the Department of Ophthalmology have cooperated with Acer to develop an AI-assisted diagnosis software for diabetic retinopathy certified by the Food and Drug Administration of the Ministry of Health and Welfare.

By collecting fundus photos of tens of thousands of patients with diabetic retinopathy at home and abroad, training in deep learning techniques, using color fundus photography to analyze the severity of diabetic retinopathy.

According to the results of clinical trials conducted at National Taiwan University Hospital, the accuracy is over 95%, which is close to the accuracy of interpretation by retinologists. It has been certified by the Food and Drug Administration (TFDA) of the Ministry of Health and Welfare as a second-level medical device software. The rights and interests of users such as physicians and patients are fully protected.

Taiwan Novartis provided its rich clinical trials and medical evidence collection experience for this project.

In terms of clinical benefits, AI-assisted diagnosis software can effectively assist physicians in identifying potential diabetic retinopathy patients, early detection and referral, and avoiding patients' vision deterioration or even blindness due to delayed treatment.

By using AI-assisted diagnosis software to assist physicians in performing fundus screening for diabetic patients, the time for patients to wait for examination and report will be greatly reduced, and patients' willingness and accessibility to undergo screening will also be greatly improved.

In the future, the fundus screening rate for diabetic patients is expected to be further improved, which is a great boon for patients, the government, hospitals and doctors.