

Supplementary materials

About the web application <http://loocus-iolcalc.ai>

For those who want to use the web application anonymously, access information is provided in this section. Users can use the following ID to log in:

ID: fawoo2@yonsei.ac.kr

Password: ophthalmology

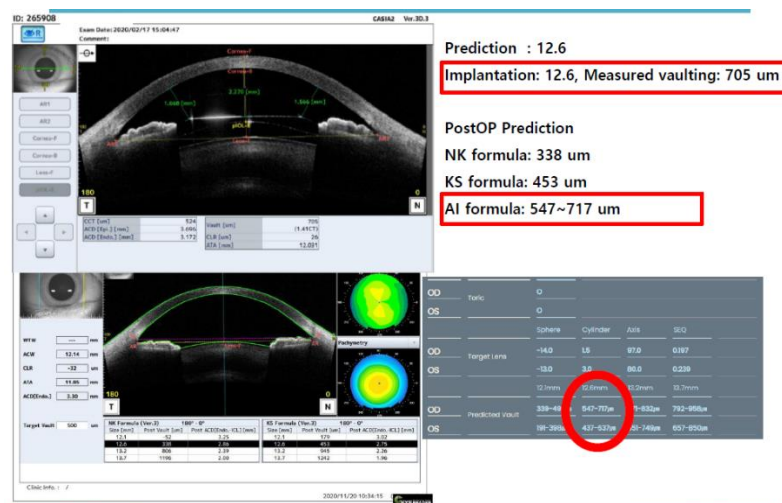
The screenshot shows the LOOCUS IOL CALCULATOR web application. The interface is split into two main sections: 'CALCULATION' and 'RESULTS'. The 'CALCULATION' section includes fields for Patient Information (Patient ID, Doctor's Name, Patient Name, Hospital & City, Birth Date, Email ID, Gender, Ethnicity) and Refraction (Sphere, Cylinder, Axis). The 'RESULTS' section shows a table for predicted vaulting. The predicted vaulting for OD is 547-757µm and for OS is 437-933µm. The predicted vaulting for OD is circled in red.

Currently, refraction measurement and keratometry data are needed to determine whether the patient's measurements can be used with this application. Patients with measurements outside the specific ranges or keratoconus cannot be evaluated using our machine learning model.

The machine learning model was trained using AS-OCT measurements under dark conditions (B&VIIT Eye Center, Seoul, South Korea).

No data input is allowed for variables other than those marked with an asterisk.

Currently, STS is not directly used by the algorithms. This will be resolved later owing to technical problems.



This figure shows the results obtained using our web application for the example shown in Fig. 9