
English summary

Ultrasound biomicroscopy (UBM) is a new imaging technology that uses high frequency ultrasound and thus allows detailed observation of the anterior portion of the globe in microscopic resolution. Ultrasound biomicroscopy has a 50 MHz transducer. This allows resolution of structures up to 60 micrometers with a depth of penetration of approximately 4 mm. It is independent on the clarity of the optical media . It allows for the first time, a non invasive demonstration of the structures of the anterior segment and their relationship to each other.

The patient is usually examined in supin position . We can get radial sections and trasverse sections of the globe by the use of the high frequency ultrasound probe.

UBM is powerful tool for obtaining precise images and mesurement of anterior chamber deapth, trabecular-iris angle,angle opening distances, and iris thickness. Therefore, it is especially suitable for diagnosis of various forms of angle closure glaucoma as Pupillary Block, Pseudophakic pupillary block, Plateau iris syndrome, Cystic angle closure (Iridociliary cysts), Ciliochoroidal effusion, Anterior synechiae and Retinopathy of prematurity.

Serial observations at different stages of the disease can be obtained as well as the response of ocular structures to various forms of treatment. So it is useful for understanding the mechanism of glaucoma.

UBM was used by *Jinza and his associates* to study the functional anatomy of the filtering bleb. It is possible to measure the height of the bleb, and to evaluate the aqueous drainage route under the scleral flap, so a correlation between bleb shape and intraocular pressure could be evaluated in glaucomatous patient treated with trabeculectomy.