Optical Device for Screening Examination and Dynamic Monitoring of Diseases that Violate Transparency of the Optical Eye-Media

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The aim of our work was to create an affordable and easy-to-use device for the early diagnosis of transparency disorders in the optical media of the human eye. As a result of the analysis of the literature on the topic and the solution of a number of engineering and technical problems, we were able to construct a compact apparatus and put it into practice to detect clouding of the cornea, lens and vitreous body. In Murmansk and the region, according to statistics, up to 3.5% of the population suffers from cataracts (clouding of the lens), which is a socially significant problem. The use of an affordable and easy-to-use diagnostic device in pre-hospital reception rooms will allow timely detection of pathology and refer the patient to a specialist for further treatment.

Awards Won: