Purpose: to substantiate the possibility of organo-undamaging treatment in patients after cataract extraction with IOL implantation in presence of intraocular melanoma with help of beta-therapy.

Material and methods: study included 11 patients: 7 females and 4 males (age 50 – 65). Tumor sizes: 3.7 – 6.5 mm in height and 8 – 16.5 mm in extension. Cataract extraction with IOL implantation was conducted, beta-applicator suturing followed in 2-3 weeks. Applicators were both domestic and German ("Bebig") with Ruthenium-106 + Rhodium-106 or Strontium-90 + Yttrium-90 radioactive nuclide on tumor projection. Beta-applicator exposure time depended on tumor height and applicator power making from 3 to 14 days. Follow-up made from 1 to 17 years.

Results: post-op period wasn’t longer than usual, with no tumor dissemination, neither lifetime reduction. Complete tumor resorption observed in 4, partial – in 5 cases; in one case the eye was enucleated one year later due to high post-op retinal detachment, 0 vision and pronounced pain syndrome. Resorption terms made 6 – 12 months, with no long-term disseminations detected during follow-up period. Visual acuity made 0.01 – 0.2.

Conclusion: IOL presence in melanoma eye has no considerable influence on treatment tactics, it doesn’t increase dissemination risk. In anophthalmos cases it allowed preserving residual visual acuity in the unique eye, quality of life improving and extending indications to organo-undamaging treatment.