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Integrating myopia management in our clinical practice

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In 2050, 50% of the world population will be myope which makes it the most important subject in optometry. In my talk, I'm gonna try to expose you to the different processes that lead to strong myopia and risks for our visual health and how we can slow his progression. Today, we have a lot of disparity in myopia prevalence and especially between cultures. For example, in Asia, the prevalence can reach around 90% against "only" 40% in Europe. The myopia progression comes from two different ways: genetic and environmental. Genetic myopia doesn't affect only a gene but implicates additional genes in a very complex pathway.

About the environment, there are two main factors: screen exposure and outdoor time. Concerning the systems at our disposal to slow down the myopic evolution, there are 3 families: pharmacology, contact lenses and glasses.

Pharmacology: Atropine (mydriatic) drops who need to be instilled every evening with the posology 0.01%. Interesting effect on the axial elongation of the eye but be careful about the rebound effect who's generally very important.

Contact lenses: Firstly we can adapt the rigid contact lenses into orthokeratology. The process is to flatten the cornea during the night and thanks to the induced positive spherical aberrations, these lenses allow to reduce the elongation of the eye. Secondly, with soft contact lenses, MiSight has a treatment area with a hypermetropic defocus. This is a new generation of contact lenses which gives excellent results.

Lenses: Two laboratories have marketed lenses with hypermetropic defocus. This technique is designed to reduce the accommodative demand when working in close vision and limits the elongation of the eye.

Finally, in the case of a patient with a refraction >-6.00 , his risk of developing maculopathy is multiplied by 41 and for retinal detachment by 21.