Ferdinandusz T.

DRUSEN OF THE OPTIC DISC: UNDERSTANDING AN OLD PROBLEM FROM A NEW PERSPECTIVE

Tutor: PhD, associate professor Huseva Y.A.
Department of Normal Anatomy
Belarusian State Medical University, Minsk

Optic Disc Drusen (ODD) is the congenital anomaly of the optic nerve (ON) head. They are represented by the acellular, calcified deposits on the ON head located anterior to the lamina cribrosa (LC) of sclera.

The relevance of their study is dictated by the complexity of their diagnosis which can mimic papilledema. Up to 55% of children which are diagnosed initially with papilledema, ultimately found to have ODD. The need to investigate the ODD is also associated with meaningful visual dysfunction and ischemic complications.

ODD prevalence is variable: from 0.3 to 7.5% according to some scientists, and from 3.4 to 24 per 1,000 individuals according to other authors.

The ODD pathophysiology remains controversial. The leading hypothesis of the ODD formation is based on the alterations of axoplasmic transport in the ON head because of its mechanical compression in the narrow scleral canal. There is an evidence of a genetic predisposition to ODD as well about the role of the vascular dysplasia in their formation. The ODD can be deep and superficial.

There are variable diagnostic methods to investigate ODD. Among them the recent findings are about the efficiency of the optical coherence tomography (OCT) in the ODD diagnosis. Ultrasound examination is one more important method which is useful for the ODD monitoring. A complete analysis of the ON head helps to predict the onset of visual field defects as the ODD consequences. Furthermore, the search for the new diagnostic criteria is still to be relevant in order to improve the ODD diagnosis

Thus, knowledge on ODD is crucial for facilitating their diagnosis and management to avoid severe complications.