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**TOBACCO DEPENDENCE IN PATIENTS WITH LEBER'S HEREDITARY OPTIC NEUROPATHY**

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**Introduction:** Leber hereditary optic neuropathy (LHON), an inherited mitochondriopathy, can result in progressive degeneration of retinal ganglial cells and thus in worsening and even loss of vision. Smoking is probably the most important risk factor for the onset and progression of the disease.

**Objectives/Aims:** To assess the smoking history and status of LHON patients to determine the need for tobacco cessation programmes in this collective.

**Methods:** From November 2011 to January 2012, 27 LHON patients completed a standardised questionnaire including Fagerström Test for Nicotine Dependence (FTND), age when smoking started and quit attempts. Smoking history was confirmed by measuring expired carbon monoxide and saliva levels of nicotine and cotinine.

**Results:** Twenty men (74%) and 7 women (26%) were evaluated. The average age at disease onset was 29 years. Fifteen (56%) of the participants were smokers at the time of the evaluation, 3 (11%) had quit smoking after diagnosis of LHON and 9 (33%) had never smoked. Saliva nicotine and cotinine concentration correlated significantly with the degree of physical dependence ( $p < 0.05$ ), but carbon monoxide did not.

**Conclusions:** Even after being informed of the probability of blindness if they continued to smoke, only 3 of 18 patients quit smoking. Further studies need to assess the effects of integrating smoking cessation programmes into the treatment offered to patients with manifest LHON. Also, the role of smoking in the onset and progression of the disease needs to be validated to optimise prevention and treatment measures for carriers and LHON patients.