**Influence of general anaesthesia for respiratory epithelial samples on ciliary functional analysis**

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***Introduction:*** Digital high-speed videomicroscopy (DHSV) is highly sensitive and specific for primary ciliary dyskinesia diagnosis. However, the effect of general anaesthesia for sample collection on ciliary beating has never been studied. Our goal was to compare ciliary function before and during general anaesthesia.

***Material and methods:*** Ciliated epithelial samples were obtained by lower and middle turbinate brushing from 3 patients suspected for primary ciliary dyskinesia diagnosis before general anaesthesia in one nasal cavity and during general anaesthesia in the contralateral nasal cavity. DHSV assessed ciliary beat frequency (CBF) and percentage of normal ciliary beat pattern (CBP).

***Results:*** Ciliary function evaluated immediately after nasal brushing showed no significant difference of CBF (Htz) and CBP (percentage of normal CBP) in the mucosa before general anaesthesia compared to during general anaesthesia. In addition, we compared the results to our normal laboratory values for children (13,11 ± 6,83). Specific data for each patient will be presented.

***Conclusion:*** This pilot study suggested that general anaesthesia might not have an effect on ciliary function in patients suspected of primary ciliary dyskinesia. Larger studies are needed to confirm these preliminary results.

***Keywords:*** Primary ciliary dyskinesia, Ciliary motility disorder, Diagnosis, Microscopy.

*This study was approved by the ethic committee of the CHU Liege.*