

## **POLYMORPHISM OF MITOCHONDRIAL DNA IN A FAMILY LINE**

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Mitochondrial DNA (mtDNA) is known to have high polymorphisms in non-coding region. Therefore, it is supposed to be very effective for identification of mother-and-child. The mtDNA were extracted from of 23 persons' (4 generations of one family line ) blood, and mouth membrane, and were analyzed the heredity relation covering 4 generations of 1 family line of HV1, HV2, and HV3 in a non-coding region. We extracted mtDNA from the 23 samples which were obtained from 4 generations of one family line, and considered the heredity relation of HV1, HV2, and HV3 in a non-code region. The base arrangement in each mitochondrial DNA ( mtDNA ) region was compared with the sequence which Anderson and other reports. The sequence comparison between this study and Anderson's results indicated that, the sequence of the mother of the 1st generation was inherited to the child of the 2nd generation, and there was no inconsistency to the grandchild of the 3rd generation and the great-grandchild of the 4th generation