

INFORMATIONS ON NEW CONCLUSIONS OF DOCTORAL THESIS

Name of thesis: “Study chromosomal characteristics and detect AZFabcd microdeletion in male with azoospermia or severe oligospermia”.

Code: 62720111. **Specialty:** Bio-medical and Genetics

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New conclusions of the thesis:

- Among male infertility due to azoospermia or severe oligospermia, chromosomal abnormalities are 13.9%. In the abnormal chromosome, Klinefelter syndrome occupied relatively high proportion of 60%. For abnormalities of chromosome structure, mostly were translocation, inversion and deletion. Inversion of chromosome 9 accounted for the highest proportion, 9.23%. Deletions of Yq chromosome accounted for 7.7%.

- We had completed the improved Multiplex PCR technique to detect microdeletion of AZFabcd on Y chromosome. The addition of primers to detect deletions AZFd increased the detection rate of AZF microdeletions on chromosome Y. We detected 10.4% male infertility due to azoospermia or severe oligospermia have microdeletions in the region of AZFabcd on chromosome Y. Microdeletions on AZFabcd occurred in male with azoospermia was 9%, severe oligospermia was 14,8%. Microdeletions on AZFc and AZFd region occurred in severe oligospermia group were higher than in azoospermia group, while AZFc or AZFd microdeletion combined with AZFb+c; AZFb+c+d; AZFa+b+c+d, occurred mainly in azoospermia group.

- There were 8 cases (1.71%) had both abnormal chromosomes and AZF deletions. All these case was azoospermia and the extraordinary here were abnormal sex chromosomes.

- Chromosomal abnormalities occur in male azoospermia were higher in male severe oligospermia, while in microdeletion AZFabcd was vice versa (azoospermia men have chromosomal abnormalities was 3.63 times higher and have DNA abnormalities by 0.57 times compared with oligospermia men).

- There was an association between sex chromosome abnormality and Y chromosome microdeletions. The long arm of Y chromosome deletions was larger the microdeletion of AZFabcd was more severely.

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