P-73 CASE REPORT OF ONE PATIENT WITH MACROCEPHALIC AND MULTIFLAGELLATE SPERMATOZOA

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Introduction:
Macrocephalic and/or multiflagellate spermatozoa are usually multinucleated and have aneuploidies at 1, 18, X and Y chromosomes. These spermatozoa result from meiosis failure, therefore it is a possible inheritable infertility cause (Escaler, 2002). The aim of this study was to analyze the sperm morphology and to describe the changes in the lectin staining patterns on the sperm plasma membrane of uncapacitated and capacitated human sperm.

Materials and Methods:
One semen sample was analysed according to the WHO 1999 criteria. Morphology was evaluated with Papanicolaou stain and Teratozoospermia Index (TZI) was calculated. Specific morphological alterations were also analysed by scanning electron microscopy (SEM). Fresh and capacitated sperm were fixed with paraformaldehyde 2% to be labelled by WGA, PNA and AAA lectins.

Results:
Morphological alterations were analyzed by light microscopy (a) and SEM analysis (b). This sample showed a TZI = 1.99 and 1.4 in fresh and capacitated sperm respectively. We obtained 30.4% macrocephalic head, 16.4% multiflagellate and 65% vesicles on head sperm. Multiflagellate sperm had as many midpiece as flagella. Lectins study showed different labelling patterns, which were similar in oval macrocephalic head sperm and in normal morphological sperm from teratozoospermic patients, although they were different in those amorphous macrocephalic head spermatozoa. We didn’t observe significant differences between fresh and capacitated sperm labelling.

Conclusions:
The morphological alterations found in the spermatozoa of this sample might reduce the fertilizing capacity of the sperm. There are no differences between the lectin binding patterns found in this case and other teratozoospermic samples described in previous studies. A FISH analysis to perform a genealogical chart and a transmission electron microscopy study will be necessary to complete this study.