

HISTOPATOLOGY

P-72 CASE REPORT OF ONE PATIENT WITH TAPERED HEAD SPERMATOZOA

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Introduction:

Transmission electron microscopy (TEM) studies have shown that spermatozoa with tapered head have a membranous system between post-acrosomal zone and post-nuclear region (Rouy *et al.*, 1977). Moreover a high proportion of tapered head sperm had cytoplasmic droplet and their acrosomal regions are reduced or absent (Dadoune *et al.*, 1980). Nucleus elongation can produce DNA damage and connecting piece damage (Watanabe, 2004). The aim of this study was to analyze the morphology sperm and describe the changes in the lectin staining patterns on the sperm plasma membrane of uncapacitated and capacitated human sperm.

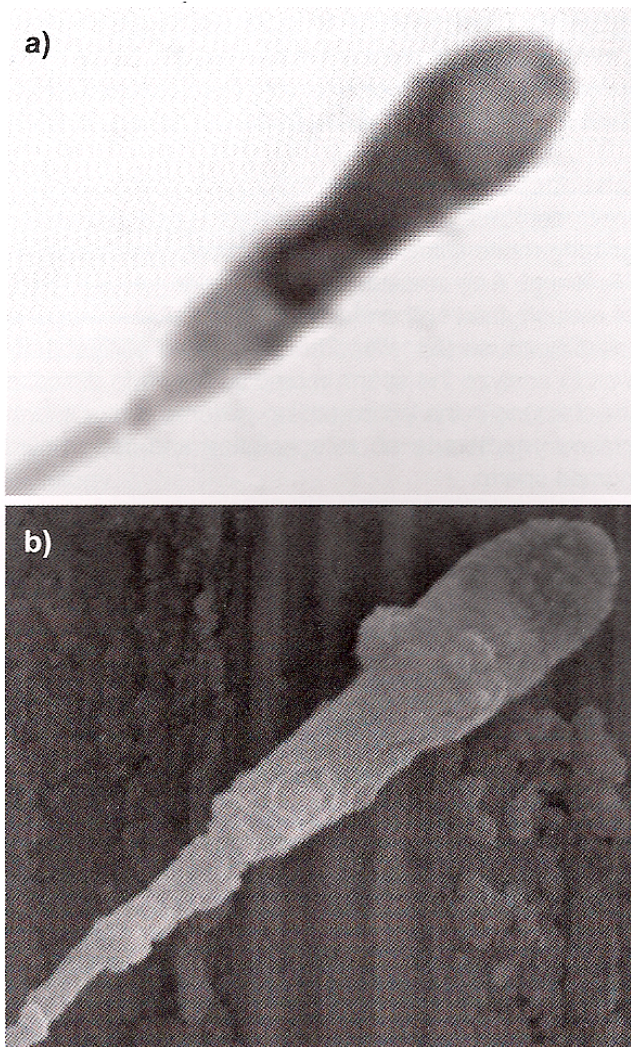
Materials and Methods:

One semen sample was analysed according to the WHO 1999 criteria. Morphology was evaluated with Papanicolau stain and Teratozoospermia Index (TZI) was calculated. Specific morphologic alterations also were analysed by scanning electron microscopy (SEM). Fresh and capacitated sperm were fixed with paraformaldehyde 2% to be labelled by WGA, PNA and AAA lectins, and glutaraldehyde 1% to be studied by SEM.

Results:

We analyzed sperm morphology by light microscopy (a) and SEM analysis (b). It showed a TZI = 2.7 in fresh sperm and 2.14 in capacitated sperm, with 95% tapered head, around 70% with little acrosome, vesicles and cytoplasmic droplet. Lectins study showed different labelling patterns in tapered heads, which were comparable to those found in normal morphology sperm from teratozoospermic patient samples. We

didn't observe significant differences between fresh and capacitated sperm patterns labelling.



Conclusions:

The principal morphological alteration detected was elongated heads with presence of little acrosome. Lectin patterns were similar in tapered and normal spermatozoa of teratozoospermic samples. The percentage of normal cells was similar before and after capacitation.

Future analysis in this patient will be done with TEM; FISH, PSA lectin and acridine orange.

References:

Rouy S., Sentein P. (1977). *Pathol. Biol.*
Dadoune J. P., *et al.* (1980). *Int. J. Fertil.*
Watanabe S. (2004). *Reprod. Med. Biol.*

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