# The oligosaccharidic content of the glycoconjugates of the prepubertal descended and undescended testis: lectin histochemical study

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SUMMARY

The saccharidic content of the glycoconjugates has been studied in the descended the undescended testes of a 8 years old boy. For this purpose, a battery of seven HRP - conjugated lectins (SBA, DBA,PNA,WGA,UEAI, LTA and ConA) was used.

D-galactose-N-acetyl-D-galactosamine and α-L-fucose sugar residues, which were present in the cytoplasm of the Sertoli cells of the normally positioned prepubertal testis, were not detected in the same cells of the undescended testis. The Leydig's cells of the descended testis appeared characterized by N-acetyl-D-glucosamine which was absent in the rare and atrophic Leydig's cells of the cryptorchid testis. Differences in sugar residues distribution between the descended and the undescended testis were also detected in the lamina propria of the seminiferous tubules.

Peritubular myoid cells in the undescended testis only reacted with PNA, after neuraminidase digestion, thus revealing the presence of D-galactose (β1→3)-N-acetyl-D-galactosamine and sialic acid. In this study a complete distributional map of the sugar residues of the glycoconjugates in the descended and undescended prepubertal testis is reported.

## INTRODUCTION

The oligosaccharidic component of the glycoconjugates in spermatogenetic cells has been widely studied, by means of lectin histochemistry, in sexually mature healthy human subjects (Lee and Damjanov, 1985; Malmi *et al.*, 1987; Arenas *et al.*, 1998; Gheri *et al.*, 2004). To our knowledge, the only available data on the glycoconjugates in human prebubertal subjects, are those reported in an our previous re-