Supplementary Figure S1  Classification of the testis parenchyma. Testis parenchyma obtained at microTESE from idiopathic non-obstructive azoospermia (iNOA) men and non-neoplastic testicular areas of men diagnosed with testicular seminoma were histologically classified, by using hematoxylin-eosin stained sections from formalin-fix paraffin-embedded (FFPE) samples. Testis specimens from patients with a positive sperm retrieval at microTESE showed germ cell arrest with rare foci of spermatogenesis (Figure 1A); in contrast, specimens from negative sperm retrieval testis parenchyma were negative for any germ cell and the seminiferous tubules were lined by Sertoli cells showing a 'wind-swept appearance' (Figure 1B). An intact spermatogenesis was observed in the non-neoplastic testis parenchyma from seminoma men (Figure 1C). SG, spermatogonium; SD, spermatid; SZ, spermatozoa; S, Sertoli cells, characterized by dense nucleoli; Hy, hyalinization of the basal membrane of the seminiferous tubules associated with complete germ cell aplasia (Sertoli Cells Only Syndrome). A single image from one representative parenchyma out of the five tested for each cohort is shown. Scale bar; 50 μm.