



**Table S1.** Comparison of Semen parameters in chronic prostatitis types IIIA and IIIB compared with WHO 2021 reference values [19].

| Parameter  | Patients with Chronic Prostatitis Type IIIA (n = 50) | Patients with Chronic Prostatitis Type IIIB (n = 624) | WHO 2021 Reference Values   | p <sup>1</sup>   |
|--|--|---|-----------------------------|------------------|
| Volume   | 2.05 (0.98–3.2)                                      | 2.3 (1.2–3.5)   | 1.4 <sup>2</sup>            | <b>0.212</b>     |
| pH value   | 7.85 (7.5–8.0)                                       | 7.6 (7.4–7.9)   | ≥7.2 <sup>3</sup>           | 0.051            |
| Sperm concentration (10 <sup>6</sup> /mL)            | 36.1 (1.58–142.8)                                    | 45.0 (18.2–100.0)                                     | <b>16<sup>2</sup></b>       | 0.403            |
| Total sperm count (10 <sup>6</sup> /ejaculate)       | 27.75 (0–244.2)                                      | 63.4 (0.1–199.8)                                      | 39 <sup>2</sup>             | 0.284            |
| Progressive motility (%)                             | 39 (3–50)  | 47 (31–56)  | 30 <sup>2</sup>             | 0.124            |
| Sperm vitality (%)                                   | 53 (36–77)   | 61 (45–73)  | 58 <sup>2</sup>             | 0.626            |
| Normal forms (%)                                     | 7 (4–11)   | 8 (4–13)  | 4 <sup>2</sup>              | 0.488            |
| α-glucosidase (mU/ejaculate)                         | 28.65 (13.33–70.9)                                   | 28.14 (13.9–53.8)                                     | ≥20/ejaculate <sup>3</sup>  | 0.963            |
| Fructose (μmol/ejaculate)                            | 11.55 (4.63–24.9)                                    | 16.4 (8.4–33.0)                                       | ≥13/ejaculate <sup>3</sup>  | <b>0.019</b>     |
| Zinc (μmol/ejaculate)                                | 3.6 (1.48–12.9)                                      | 5.0 (2.8–10.1)  | ≥2.4/ejaculate <sup>3</sup> | 0.158            |
| Peroxidase-positive leukocytes (10 <sup>6</sup> /mL) | 7 (1–13)   | 0 (0–0)   | <1 <sup>3</sup>             | <b>&lt;0.001</b> |
| Elastase (ng/mL)                                     | 495 (173.5–1221.1)                                   | 35.5 (12.0–102.9)                                     | <250 <sup>4</sup>           | <b>&lt;0.001</b> |
| Interleukin-8 (pg/mL)                                | 8169 (5999–15,893)                                   | 3410 (1965–6030)                                      | <10,000 <sup>4</sup>        | <b>&lt;0.001</b> |

<sup>1</sup> Mann–Whitney U test comparing patients with chronic prostatitis type IIIA and IIIB. <sup>2</sup> Lower reference limit based on 5th percentile. <sup>3</sup> Consensus-based reference values. <sup>4</sup> Threshold levels established in the Giessen Andrology laboratory.

**Table S2.** Microbiological findings in patients with positive semen culture and positive 16S rDNA detection.

| Pathogen                       | Patients with Positive Microbiology in Semen, n (%) (n = 103) | Patients with Positive 16S rDNA, n (%) (n = 58) |
|--------------------------------|---|---|
| <i>Escherichia coli</i>        | 25 (24)   | 0   |
| <i>Mixed flora</i>             | 21 (20)   | 0   |
| <i>Staphylococcus</i> species  | 16 (16)   | 7 (12)  |
| <i>Enterococcus faecalis</i>   | 14 (14)   | 1 (2)   |
| <i>Klebsiella</i> species      | 4 (4)   | 1 (2)   |
| <i>Streptococcus</i> species   | 3 (3)   | 2 (3)   |
| <i>Serratia marcescens</i>     | 2 (2)   | 0   |
| <i>Lactobacillus iners</i>     | 0   | 27 (47)   |
| <i>Fusobacterium nucleatum</i> | 0   | 7 (12)  |
| <i>Bacteroides mealyticus</i>  | 0   | 1 (2)   |
| <i>Finexgoldia magna</i>       | 0   | 1 (2)   |
| <i>Corynebacterium</i> species | 0   | 1 (2)   |
| Not determined                 | 18 (17)   | 10 (17)   |