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Introduction & Objectives: Erectile dysfunction is a common condition that can profoundly affect patients' psychosocial health and quality of life. While various treatments are available, penile prosthesis implantation provides a lasting solution for patients unresponsive to or unsuitable for other options. However, the surgical procedure carries inherent risks and potential complications. This study aimed to assess the incidence and risk factors for early postoperative complications following penile implant surgery, using data from a large, multicenter, prospective observational cohort.

Materials & Methods: Data were obtained from the PHOENIX registry, an international multicenter study on penile implant surgery managed by the EAU Research Foundation. Surgeries were performed from November 2021 to August 2024 across 30 centers in 8 countries, with data collected prospectively. The study did not restrict inclusion to any particular device or brand, making all available options eligible. Postoperative complications were tracked at multiple follow-up points up to 2 years post-surgery, with this analysis focusing specifically on complications occurring within 2 weeks after surgery. Ethical approval was obtained from each participating center.

Results: Data from 1,072 patients who underwent penile implant surgery were analyzed, with an average patient age of 61 years. Perioperative drains were used in 639 cases (60%). In the first 2 weeks post-surgery, 39 patients reported complications. Infection was observed in 19 patients (1.8%), with 4 cases occurring within 2 weeks. Penoscrotal hematoma was reported in 9 patients (0.8%), with 6 cases appearing within the first 2 weeks. Among those who developed infections, 8 patients (42%) had received a drain, while 11 (58%) had not. Additionally, of the 278 patients (26%) with a history of diabetes, 5 (26%) experienced postoperative infections.

Conclusions: This large, unique prospective international multicenter study supports that penile implant surgery is a safe procedure with a low rate of early postoperative complications. Furthermore, the use of perioperative drains and a history of diabetes mellitus do not appear to significantly influence the risk of postoperative infections.