## Obstructive uropathy in severe pelvic organ prolapse: Incidence, risk factors, effect and outcome – An experience in a tertiary hospital in Malaysia

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## **ABSTRACT**

Introduction: Obstructive uropathy among patient with pelvic organ prolapse (POP) is not rare, with prevalence ranging from 7% to 17%. Objective: This study aimed to determine the prevalence of obstructive uropathy in severe POP, identify the risk factors, effect and look at the resolution of hydroureter (HU) following POP intervention. Materials and Methods: This study retrospectively reviewed 342 patients in Hospital Tunku Azizah (HTA) with severe POP from 1st October 2019 until 31st December 2023 who underwent intervention for POP – vaginal packing and/or pessary insertion, prolapse surgery, or both. Preintervention renal ultrasonography and renal function tests were performed for all patients. Renal ultrasonography was repeated during first month post intervention to look for the resolution of obstructive uropathy. Results: Total of 342 patients were diagnosed with severe POP – 27% (n=93) diagnosed at stage 3 while remaining 73% (n=48) had stage 4 POP. The overall prevalence of HU in severe POP was 14% (n=48 patients), 54.2% (n=26) had unilateral HU and 45.8% (n=22) had bilateral HU. Severe POP with increased number of compartments affected (two compartments and all three compartments) was significantly associated with the presence of thydronephrosis. Following treatment, 85% had complete resolution of HU. Only remaining 15% had persistent HU. However, the severity of obstructive uropathy in all of them improved. Conclusion: POP is one of the reversible aetiologies of obstructive uropathy in women. If left untreated, renal function may deteriorate and the damage can be irreversible. Therefore, timely intervention by clinicians are needed to prevent end-stage renal failure among women with POP.