



Clinical characteristics and outcome of high-pressure chronic urinary retention: A systematic review

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Abstract

Background:

Although not infrequent, publications on high-pressure chronic urinary retention (HPCR) are limited. Lack of awareness of this condition can lead to delayed diagnosis and suboptimal treatment. This systematic review aimed to describe the clinical characteristics and outcome of HPCR.

Methods:

Keywords were searched in PubMed, Scopus, EMBASE, LILACS, Cochrane-CENTRAL, APAMED Central and Google Scholar. Relevant articles were added from the list of references of eligible articles. Studies describing any two of the characteristic features related to HPCR were included. Qualitative analysis was performed using the available data.

Results:

Eight prospective studies with 271 patients ($M_{age}=66.4$ years, range 14–89 years; 263 males) were identified. The commonest presentation was tense painless palpable bladder (99.6%). Late-onset nocturnal enuresis was reported in 68.4%, and resistant hypertension

was reported in 41.6%. Elevated levels of serum creatinine were identified in 43–81%. Benign prostatic hyperplasia (64.1%) was the commonest aetiology followed by prostatic malignancy (22.6%). A satisfactory response was seen following the definitive treatment of the underlying aetiology. Initial bladder decompression reversed adverse cardiovascular changes and improved renal function but resulted in post-obstructive diuresis. Heterogeneity of the reported data in available studies was a major limitation.

Conclusions:

Late-onset nocturnal enuresis, a tense painless and non-tender palpable bladder and treatment-resistant hypertension are important clinical findings which would raise the suspicion of HPCR in the clinical setting. Urinary tract ultrasonography showing upper-tract dilatation and raised serum creatinine support the diagnosis. Definitive treatment targeting the underlying aetiology following careful decompression of the bladder showed satisfactory outcomes.

Level of evidence:

Level 2a(-).

Keywords [High-pressure chronic retention](#), [nocturnal enuresis](#), [resistant hypertension](#), [tense painless bladder](#), [outcome](#), [systematic review](#)