

Long-term urological complications after conservative local treatment (surgery and brachytherapy) in children with bladder-prostate rhabdomyosarcoma. A single team experience.

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Abstract

Background: Outcome of children with bladder-prostate rhabdomyosarcoma has improved with multimodal therapies, including surgery and/or radiotherapy for local treatment. Our aim was to report the long-term urological complications after a conservative approach combining conservative surgery and brachytherapy. Patients and methods: Eighty-six patients, free of disease, were retrospectively reviewed. Symptoms related to urinary tract obstruction, incontinence, infection and lithiasis were reported and graded according to CTCAE classification. Only symptomatic patients underwent urodynamic studies. Risk factors for complications were analyzed. Results: There were 76 males and 10 females. The median follow-up was 6.3 years (18 months-24 years). Complications occurred after a median follow up 5 years (0-21). Twenty-two patients had long-term urological complications. Urinary tract obstruction was found in 15 patients, urinary incontinence in 14 patients. Recurrent urinary tract infection and urinary lithiasis were found in 5 patients respectively. Beyond symptom, 3 etiologies were identified: bladder dysfunction in 15 patients, urethral stenosis in 6 and uretero-vesical junction stenosis in 5. Posterior bladder wall dissection used in large prostatic tumors, operation at age less than 2 years and partial prostatectomy were identified as risk factors for these complications. Conclusion: The conservative surgical approach combined with brachytherapy for BPRMS leads to long-term urological complications in 22% of patients free of their disease. Optimizing brachytherapy doses for young children and establishing a clear and long term follow-up protocol, could help to reduce these complications.

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