Abdominoscrotal hydrocele: A systematic review and proposed clinical grading

Rabea Ahmed Gadelkareem

Abstract:

Introduction: Abdominoscrotal hydrocele is a rare hydrocele variant in pediatrics and adults. Besides the historical concerns, controversies in etiology and management of abdominoscrotal hydrocele warrant studying. Subjects and methods: A systematic review was conducted based on a multilingual search of the world literature of abdominoscrotal hydrocele through electronic engines (Google Scholar and MEDLINE/PubMed). The demographic and clinical characteristics are critically addressed and a clinical grading system is proposed. Results: From the 487 delivered articles, 320 articles were eligible to this review including only 21 case series. They delivered 579 abdominoscrotal hydrocele cases. Abdominoscrotal hydrocele affects pediatrics more than adults with significantly increased rate of reporting in the last decades. Full or incomplete case descriptions were found in 558 cases versus 21 cases with deficient description. Abdominoscrotal hydrocele has been reported from 45 countries and India has the highest rate. Eight proposed hypotheses were differentiated for etiology and grouped according to the direction of fluid formation and hydrocele growth. Associated congenital anomalies include contralateral hydroceles and cryptorchidism. Complications result from compression, hemorrhage, infection, torsion, and coincident malignancy. A clinical grading system considering the increased anatomical, pathological or clinical complexities has been proposed and provided two categories; simple and complex abdominoscrotal hydroceles with further sub-classes. Conclusions: Abdominoscrotal hydrocele is rare, but the number of the reported cases is far larger than the previously reported numbers. Etiology follows multiple hypotheses and management is speculative. Proposed clinical grading may support differentiation of severity of the associated cumulative risks.

Keywords:

Abdominoscrotal hydrocele; Dupuytren; Processus vaginalis; Testicular dysmorphism

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