The Prediction of papaverine induced priapism by color doppler ultrasonography

Mazen Saleh Mohamed Abdul-Wahab, Bahgat Ali Metawea, Abd El Rahman M El-Nashar, Amr Mohamed Gad Alla,
Cairo University
Giza, Egypt
Master (Msc) Thesis, 2003

Abstract

Purpose: To identify color Doppler Ultrasonography findings that are helpful for predicting priapism in patients after intracavernosal injection of papaverine and phentolamine. Patients and methods: We evaluated 50 men with erectile dysfunction by color Doppler Ultrasonography after the diagnostic injection of papaverine hydrochloride and phentolamine mesylate. Cavernosal arteries waveforms were recorded and peak systolic and diastolic velocity of the recorded waveforms were measured. In cases of priapism color Doppler Ultrasonography findings were retrospectively evaluated to identify any finding that would predict priapism. Results: All patients were observed up to 6 hours after the injection of the vasoactive agent. Priapism was observed in 20 of the 50 patients (40%). In all cases of priapism peak systolic velocity (PSV) > 66 cm/sec or more, including measuring after minutes 5, 10 and 20. The end diastolic velocity (EDV) was 0 cm/sec. These findings predicted priapism with 100% specificity and overall accuracy 100%. Conclusion: During color Doppler Ultrasonography a peak systolic velocity exceeding 66 cm/sec together with the presence of EDV of 0 cm/sec is considered to be a reliable predictor factor of priapism. The finding is accurate enough to initiate treatment for priapism to avoid further complications.

Keywords
Penis, Priapism, Penile erection, Papaverine, Ultrasonography.