Extracorporeal Shock Wave Lithotripsy

Technical Concept, Experimental Research, and Clinical Application

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Preface

Slightly more than 4 years have passed since the first edition of this book on extracorporeal shock wave lithotripsy (ESWL) was introduced. During this relatively short period of time, noninvasive means of disintegrating human urinary stones have completely changed the management of urinary stone disease. Today ESWL has proven its safety, efficacy and reliability. This has been demonstrated by the steadily increasing number of lithotripter facilities all over the world and the more than 100,000 successfully performed treatments. Due to its high success rate and the absence of severe complications, ESWL has almost completely surplanted open surgical, and to a lesser extent endourological procedures. The reason for this surprisingly rapid progress with this new methodology can be only partially explained by the excellent research cooperation of urologists and physicists. The high demand for a less invasive treatment modality exerted by the stonebearing patients themselves was also a major contributing factor. However, the high expectations of these patients could not be met immediately. It was, at this point, important for the future of this method that the outside pressure did not influence our cautious approach to increase its indications. Based on the noninvasive concept of the methodology a stepwise enlargement of the indications backed by reproducible results was pursued. This finally led to well established indications for the treatment of all upper urinary stones.
We do not know for sure, whether or not we have reached the endpoint of the development of this method and its clinical applications for the treatment of urinary stone disease.
However, it is certain that the progress made by urologists, for the sake of urology, represents a dramatic change in the management of urinary stones by which invasive approaches have been superseded by a noninvasive procedure. From now on all other methods employed for the treatment of urinary stones will have to be judged against the results of this methodology.

Christian G. Chaussy

Los Angeles, Calif., March 1986