7. CONTINUOUS AMBULATORY PERITONEAL DIALYSIS (CAPD) – WORLDWIDE EXPERIENCE

JACK W. MONCRIEF AND ROBERT P. POPOVICH

1. INTRODUCTION

CAPD has become an accepted alternative form of therapy for patients with end-stage renal disease. Rapid expansion in the number of dialysis units with experience in this form of therapy is occurring. As of Fall 1980, 261 dialysis facilities in the United States and an approximate equal number throughout the world have made CAPD available to most patients (Figure 1). An increase in this patient population is continuing and more than 2000 patients (near 2 to 3% of the dialysis patients in the USA) are presently undergoing CAPD (Figure 2). As of November 1980, there were about 4000 CAPD patients

Fig. 1. Growth of CAPD Centers in the USA. Numbers are estimates obtained from providers and at scientific meetings.
Fig. 2. Growth of CAPD in the USA. Numbers are estimates obtained from providers and at scientific meetings.

worldwide. This chapter will review the worldwide experience with this new technique and attempt an in-depth discussion of the present status of continuous ambulatory peritoneal dialysis.

2. History

2.1. Theoretical and clinical

The mathematical and clinical parameters upon which CAPD is based were developed at the Austin Diagnostic Clinic in 1975. The original concepts were applied and materials, protocols, methods and results evaluated. Success was achieved and the first published report was in the Abstracts of the American Society of Artificial Internal Organs[1]. Subsequently, the National Institute of Arthritis, Metabolism, and Digestive Diseases awarded a contract to evaluate four more patients at the Austin Diagnostic Clinic. In 1977, the evaluation was expanded to include patients under the direction of Dr. Karl D. Nolph of the University of Missouri Medical Center. Successful control of uremia and improved patient sense of well-being was demonstrated[2, 3]. The materials available in the United States at that time required delivery of the