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Title:

Vascular access maintenance and management in Japan: Who plays the leading role?

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Abstract:

According to the data published by the Japanese Society for Dialysis Therapy (JSDT), the total number of chronic dialysis patients was 320,448 (2,517.3 persons per million population) at the end of 2014, and 97% of Japanese dialysis patients were managed by hemodialysis (HD) whose treatment cannot be delivered without vascular access (VA). Therefore, careful daily management of VA is essential to better maintain the condition of HD patients even when the most appropriate blood purification therapy is selected. The Dialysis Outcomes and Practice Patterns Study (DOPPS), which is an international comparison study introduced in 1996, shows that VA modalities are an important factor in determining prognoses of patients and that the prognosis in Japan is one of the best worldwide. In Japan, the use of native arteriovenous fistulae (AVF) accounts for 95% of VA modalities. DOPPS revealed that the clinical benefits of Japan's case include less hospitalization and lower mortality risks. On the other hand, a statistic by the Japanese Society for Dialysis Therapy (JSDT) suggests that the use of AVG has gradually been increasing due to prolonged dialysis durations and aging patients. 2005 JSDT Guidelines for Vascular Access Construction and Repair for Chronic Hemodialysis recommend percutaneous transluminal angioplasty (PTA) be the first choice for the treatment of VA failure. PTA has been widely used and has become an important procedure for minimizing transition cases from AVF to AVG and for long-term maintenance of the morphology and function of VA. Approximately 60% of PTA procedures are conducted by dialysis specialists who are responsible for the daily management of dialysis therapy (such as nephrologists and urologists) in Japan while the procedures are primarily performed by radiologists in some other countries. In addition, AVF creation procedures are performed by dialysis physicians and various other specialists (including general surgeons) in Japan, resulting in favorable patency, while approximately 80% of the procedures are performed by vascular surgeons in

European countries and the United States. Such conditions above, which is unique to Japan, show that even in the absence of standardized training on VA management, doctors on site perform their duties in an appropriate manner. However, the question of how we evaluate the superiority of the Japanese system and pass it down the generations still remains. Due to such background, the Japanese Society for Dialysis Access (JSDA) initiated training programs in 2014 that include regular seminars on practical training for vascular and peritoneal accesses as well as accreditation of training centers, aiming for continuous succession of techniques.

At this symposium, we will present an overview of the creation and management of VA in Japan.