

Retrospective analysis of nephrology care in the Republic of Azerbaijan: a single center experience



Hikmet Ismayilov, Zemfira Hasanova

Baku, Azerbaijan

Financial disclosure statement:

The authors declare that there are no financial relationships or conflicts of interest related to this publication.

We affirm that this work has not been influenced by any external funding, sponsorship, or personal financial interests.

Introduction

- Globally, the prevalence of patients on kidney replacement therapy (KRT) for end-stage kidney disease (ESKD) has been estimated at 3.9 million in 2017 and continues to rise, which is amplified by improved KRT survival in many parts of the world.
- The first private hemodialysis (HD) center in Azerbaijan, MedServis, was established in 2000, when there were only 10-15 hemodialysis machines in the country and only about 50 patients were receiving maintenance HD.
- To provide the best possible medical care we created our protocols based on existing international clinical practice guidelines on KRT and updated them appropriately. We performed first in the country pediatric HD, permanent central venous catheters (CVC) placement and mobile HD. In this abstract we summarize our more than 20 years' experience.

Materials and methods

- Data from patient records admitted to the Private Medical Center MedServis during the period from 2000 to 2023 were analyzed using descriptive statistics methods.

Results

- Of 13920 new patients admitted for HD treatment, 8343 (59.9%) were males and 5327 (38.3%) were females. Most of them were adults; 250 patients (1.8%) were children and adolescents. 12110 patients (87%) had ESKD and 1810 (13%) had acute kidney injury. Causes of ESKD were diabetic nephropathy (4203 patients/30.2%), chronic glomerulonephritis (4092/29.4%), chronic pyelonephritis (2491/17.9%), hypertensive nephrosclerosis (1963/14.1%), polycystic kidney disease (737/5.3%), amyloidosis (97/0.7%), other causes (292/2.1%).
- CVCs were used as a main initial vascular access type (internal jugular vein (12389 patients/87%), subclavian vein (1670/12%), femoral vein (139/1%). The main permanent access type was arteriovenous fistula (AVF), which were created pre-emptively in 153 patients (1.1%). We placed permanent CVC in patients with AVF surgery failure and children (1914 patients). Twelve (12) patients had arteriovenous grafts.

- In 2006, a pregnancy was diagnosed in a patient who had been receiving standard HD at our center for 6 years, which ended with a successful delivery.
- Patients with ESKD were provided with detailed information about kidney transplantation and 487 of them (females, 43.7%; males, 50.75%; children, 2.75%) successfully underwent kidney transplantation in Iran, Turkey, Russia and Azerbaijan.

Conclusion

- Private Medical Center MedServis has made a significant contribution to the development of HD nephrology in Azerbaijan. We hope that our experience could help newly established HD centers in other countries.

Causes of End-Stage Kidney Disease

