

The outcome of Iranian children on continuous ambulatory peritoneal dialysis: The first report of Iranian national registry

Hooman, N.^a, Esfahani, S.-T.^b, Mohkam, M.^c, Derakhshan, A.^d, Gheissari, A.^e, Vazirian, S.^f, Mortazavi, F.^g, Ghane-Sherbaff, F.^h, Falak-Aflaki, B.ⁱ, Otoukesh, H.^a, Madani, A.^b, Sharifian-Dorcheh, M.^c, Mahdavi, A.^j, Esmaeile, M.ⁱ, Naseri, M.ⁱ, Azhir, A.^e, Merikhi, A.^e, Mohseni, P.^b, Ataei, N.^b, Fallahzadeh, M.-H.^d, Basiratnia, M.^d, Hosseini-Al-Hashemi, G.^d

^a Department of Pediatric Nephrology, Ali Asgar Children's Hospital, Iran **University of Medical Sciences**, Vahid Dasgerdi St., Moddarres Freeway, Tehran, Iran

^b Department of Pediatric Nephrology, Children's Hospital **Medical Center**, Tehran **University of Medical Sciences**, Tehran, Iran

^c Department of Pediatric Nephrology, Mofid Children's Hospital, Shaheed Beheshti **University of Medical Sciences**, Tehran, Iran

^d Shiraz Nephrology Research Center, Shiraz, Iran

^e Al-Zahra Hospital, Isfahan **University of Medical Sciences**, Isfahan, Iran

^f Razi Hospital, Kermanshah **University of Medical Sciences**, Kermanshah, Iran

^g Tabriz Children's Hospital, Tabriz **University of Medical Sciences**, Tabriz, Iran

^h Sheikh Children's Hospital, **Mashhad University of Medical Sciences**, Mashhad, Iran

ⁱ Children's Hospital **Medical Center**, Zanzan **University of Medical Sciences**, Zanzan, Iran

^j Baghiyatalah Hospital, Tehran, Iran

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Abstract

Background: Continuous ambulatory peritoneal dialysis is not a very common modality to treat Iranian children with end-stage renal disease; however, there is sometimes no choice but to offer this therapy to salvage the patient. Obviously, promotion in each program needs re-evaluation to find the pitfalls. Therefore, a nation-wide survey on pediatric continuous ambulatory peritoneal dialysis was conducted to find the cause of death or termination of dialysis. **Methods:** All children, younger than 14 years old, treated by continuous ambulatory peritoneal dialysis in nine main pediatric nephrology wards in Iran between 1993 and 2006 were included in this historical cohort study. Patient and technique survival rates were determined. Kaplan-Mayer and Cox-regression analysis were used to compare the survival. χ^2 table was used to calculate the risk ratio. A $P < 0.05$ was considered significant. **Results:** One hundred twenty children with a mean age of 47.6 months were on continuous ambulatory peritoneal dialysis. The most frequent cause of renal failure was hereditary-metabolic-cystic disease. One hundred eighty-two peritoneal dialysis catheters were inserted surgically. The median first catheter exchange was 0.74 year (95%CI: 0.5 - 0.98). The most frequent cause of catheter replacement was catheter outflow failure due to displacement, adhesion, and infection (persistent peritonitis or tunnel infection). The mean patient survival was 1.22 years (95%CI: 0.91 - 1.53). The mortality rate was 50% before 1997, and 60% between 1998 and 2001, which declined to 22% after 2002 ($P < 0.05$). Young age (< 24 months) was the only independent factor that predicted mortality ($P < 0.05$). The outcome of children was as follows: recovery of renal function (14.7%), renal transplantation (8.3%), switch to hemodialysis (16.7%), still on continuous ambulatory peritoneal dialysis (23.3%), death (43.3%), and lost to follow-up (10.7%). **Conclusion:** The mortality is still high among Iranian children on peritoneal dialysis. Young age is the most important factor influencing on survival and mortality.

Reaxys Database Information

Author keywords

Continuous ambulatory peritoneal dialysis; Mortality; Pediatric; Survival