

Results: Mean age of the study participants was 62 years. The prevalence of OSA was found to be 65.3%, of whom 42.7% had moderate OSA and 22.6 % had mild disease. Statistically significant association was observed between OSA and increased BMI; presence of alcoholism, hypertension, chronic liver disease; those having lesser frequency of dialysis per week, hypomagnesemia and low ejection fraction. Binary logistic regression analysis showed statistically significant association with increased BMI ($p=0.000,95\%$ CI=1.304-2.067) and low ejection fraction ($p=0.017,95\%$ CI=0.019-0.682).

Conclusions: This study highlights the increased prevalence of sinister sleep disorders like OSA in patients on haemodialysis. These patients are mostly obese and have cardiac failure. Screening and detection of OSA enables early treatment with CPAP, which can improve the quality of life.

I have no potential conflict of interest to disclose.

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THE DESTINY OF END-OF-LIFE HEMODIALYSIS MACHINES: AN INTERNATIONAL SURVEY



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Introduction: Approximately one million hemodialysis (HD) machines are in operation worldwide, and some 100,000 are discarded each year. In Europe, legislation imposes a maximum lifespan – in France between 10 and 12 years – for HD machines. HD machines contain electronics parts and must be managed as Waste from Electrical and Electronic Equipment (WEEE). WEEEs are often sent to low- and middle-income countries (LMICs): the Agbogbloshie area in Dacca, Ghana, is an example of e-waste mismanagement with a significant impact on the local population. In 1997, the World Health Organization (WHO) indicated that less than 30% of second-hand medical devices sent to LMICs were operational and their destiny is obscure, risking to increase the WEEEs burden in these countries. In recent years, some countries, such as Morocco or Indonesia, have banned the import of exhausted devices from high-income countries (HICs). We tried to shed some light on the destiny of HD machines at the end of their life cycle involving professionals from several countries worldwide.

Methods: We contacted by email professionals from healthcare centers providing hemodialysis and got answers from colleagues from Argentina, Australia, Botswana, Brazil, Canada, China, Croatia, France, Germany, Ghana, India, Italy, Japan, Kenya, Malaysia, Mexico, Morocco, Nepal, New Zealand, Nigeria, Poland, Portugal, Romania, Russia, Saudi Arabia, Singapore, Spain, Sweden, Switzerland, Taiwan, Thailand, Tunisia, Turkey, United Kingdom, United States of America, and Vietnam. In order to understand their policy when the medical equipment has reached its lifespan, we collected the answers on obsolescence rules and disposal practices. Additionally, we explored more in detail the recycling process in France.

Results: In 4 out of 37 countries, lifespan of HD machines is strictly limited by the number of years or working hours, and specific recommendations are available in further 3 countries. In the absence of regulations, healthcare centers follow the manufacturer's recommendations, or replace their equipment when the cost of repair becomes higher than acquiring a new machine or there is no more possibility for repair. Usually, nephrologists do not have a clear idea about the destiny of exhausted HD machines. However, we have identified 4 main outcomes for obsolete HD machines: manufacturer take-back with low visibility on the further process; donation to non-governmental organizations (NGOs) in LMICs; reuse or resale of spare parts; disassemble with or without recycling. The recycling process is rather obscure as well: companies in the recycling business are difficult to reach and, in France, only one enterprise agreed to show us around one of its

facilities. Globally, it appears that there is a lack of information on the end-of-life of HD machines and on recycling possibilities.

Conclusions: Obsolescence rules and practices differ in different countries and are not clear as for exhausted HD machines. Policies should be more transparent and standardized around the world. Extending the lifespan of HD machines appears feasible and could be beneficial for the environment and should be encouraged by all the stakeholders. Environmental-friendly recycling processes should be promoted and discarding in WEEE cemeteries discouraged by means of proactive programs at the government level.

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NAFLD IN ESRD – PREVALENCE OF NAFLD IN ESRD PATIENTS AND EVALUATION OF THERAPEUTIC EFFICACY OF TOCOTRIENOL IN TREATMENT OF NAFLD



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Introduction: The Prevalence of NAFLD (Non Alcoholic Fatty Liver Disease) currently known as MASLD (Metabolic dysfunction-associated Steatotic Liver Disease) is estimated to be around 32% globally with one in 3 people suspected to have NAFLD. In this study, we evaluated the prevalence of NAFLD in ESRD patients undergoing dialysis using advanced Transient Elastography (TE) technique. We also studied the therapeutic effects of Tocotrienol (Vitamin E) in improving NAFLD parameters. Vitamin E is recommended by the American Association for the Study of Liver Diseases (AASLD) in non-diabetic NAFLD patients. This is the first study evaluating the therapeutic effects of Tocotrienol in kidney disease patients with NAFLD.

Methods:

Socio Demographic Variables

Variable	Description	(n=120)
Age (years)	Mean (SD)	49.4(12.6)
Sex	Male (%)	88(73.3%)
	Female (%)	32(26.7%)
2x/3x dialysis	2x (%)	84(70%)
	3x (%)	36(30%)
Height (cm)	Mean (SD)	162.2(10.9)
Weight (kg)	Mean (SD)	58.6(13.0)
BMI	Mean (SD)	21(13.0)
Smoking Status	Yes (%)	5(4.2%)
	No (%)	115(95.8%)
Alcohol Use	Yes (%)	14(11.7%)
	No (%)	106(88.3%)
Dietary Habits	Vegetarian (%)	1(0.8%)
	Non-Vegetarian (%)	119(99.2%)
Alternate Medicine	Yes (%)	11(9.2%)
	No (%)	109(90.8%)
24hr dietary recall	Yes (%)	0
	No (%)	120(100%)

Risk Factors

Variable	Description	(n=120)
Diabetes	Yes (%)	38(31.7%)
	No (%)	82(68.3%)
Hypertension	Yes (%)	106(88.3%)
	No (%)	14(11.7%)
Hepatitis B	Positive (%)	6(5.0%)
	Negative (%)	114(95.0%)
Hepatitis C	Positive (%)	11(9.2%)
	Negative (%)	109(90.8%)
Previous Heart attack	Yes (%)	0
	No (%)	120(100%)