

# DETERMINANTS OF MALNUTRITION-INFLAMMATION COMPLEX SYNDROME AMONG ESRD PATIENTS

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## Introduction

Malnutrition-inflammation complex syndrome (MICS) is a common syndrome among end-stage renal disease (ESRD) patients, associated with increased mortality. The aim of the present pilot study was to assess determinants of the syndrome via easily-performed tests and variables, assessed in clinical practice.

A total of 56 ESRD patients (46 undergoing HD and 10 under PD) were recruited during the last trimester of 2016. All patients underwent bioelectrical impedance analysis (BIA), hand-grip strength (HGS) measurement and were screened for MICS, using the Malnutrition-Inflammation Score (MIS) questionnaire.

## Results

MIS was positively correlated to the years of dialysis and the waist circumference (Table 1) and negatively correlated to HGS and phase angle. No differences were observed between HD and PD patients concerning the MIS. Overweight/obese patients, as well as patients with height smaller than 155cm, were more likely to demonstrate a MIS greater than 4 (OR:3.4, CI:1.1-10.7,  $p \leq 0.033$  and OR:3.9, CI:1.0-16.6,  $p \leq 0.05$ , respectively).

Table 1

	rho	p
<b>Years of dialysis</b>	<b>0.383</b>	<b>0.003</b>
<b>HGH</b>	<b>-0.456</b>	<b>0.001</b>
<b>Phase Angle <math>\phi</math></b>	<b>-0.28</b>	<b>0.034</b>
<b>Waist circumference (cm)</b>	<b>0.337</b>	<b>0.012</b>

Our study shows that short stature, the prevalence of overweight, decreased handgrip strength as well as phase angle determined via BIA can easily be applied to predict the onset of malnutrition-inflammation complex syndrome among ESRD patients.

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